



## GUANGDONG CHIGO HEATING & VENTILATION EQUIPMENT CO., LTD.

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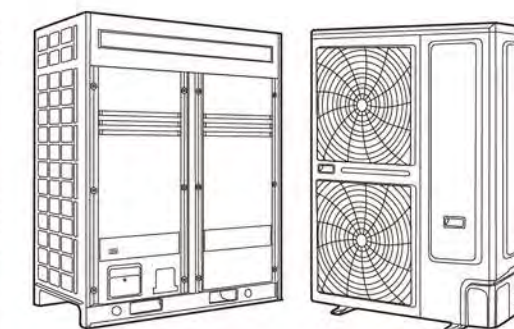
Note: All the data in this book maybe changed without notice  
for further improvement on quality and performance.

# 2018

R410A  
50Hz&60Hz

## CMV (X/ T/ C/ I/ MINI) SERIES

### DC INVERTER VRF SYSTEM CAC Catalogue







# CHIGO GROUP

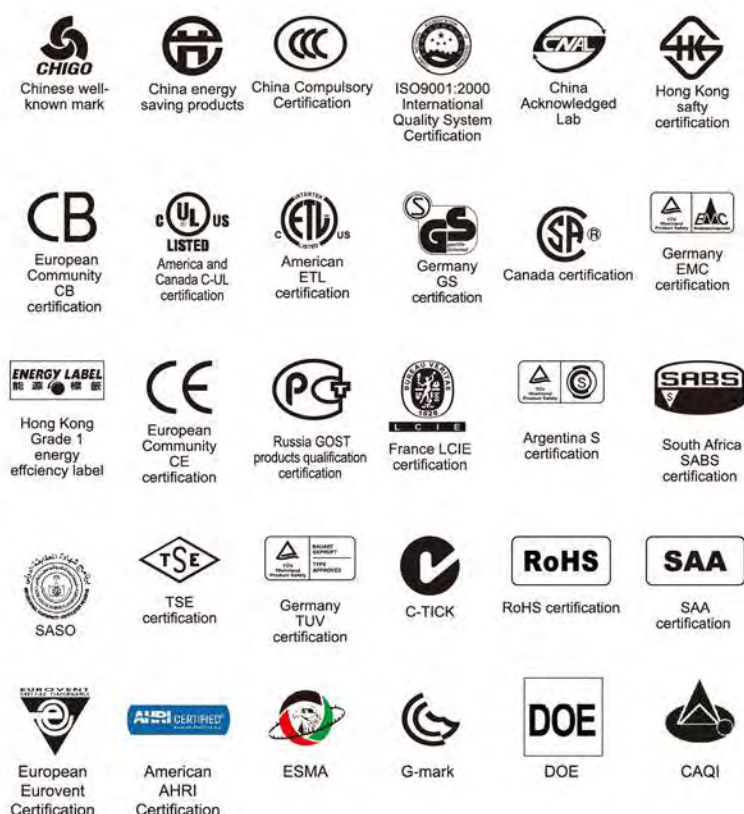
**G**UANGDONG CHIGO AIR CONDITIONING CO.,LTD(Listed Member of Groups, Stock Code:449.HK)established in 1994, a modern professional AC manufacturer with a business line of designing, R&D,manufacturing as well as distributing both residential and commercial AC domestically and internationally.

**A**s one of the biggest AC manufactures in the world, CHIGO's designed annual output are 10 million sets,which include complete series of AC products. We are one of the most complete refrigeration industrial chain. All-in-one production strategy has capacities to meet different customers' demands.

**C**HIGO's annual growth rate is being top all over the AC industry and CHIGO win various strict certificates in all important market. CHIGO has spread its network over 180 countries and regions worldwide.

**W**e have invested large amount of resources to establish advanced reliability labs. CHIGO imposes more stringent pursuit and controls over the quality of finished products.By the highly precise enthalpy difference lab, well-known B&K noise testing device, Switzerland SCHAFFNER EMC device, CHIGO ensure the quality of finished products with those scientificness of every process.

**C**HIGO is trying hard to be global customer's favorite brand. Through continuous improvement of the product quality and standing with the global partners, we are committed to advocate the low-carbon lifestyle, improve the environment and the life of people.





# Development History



## THE CHIGO HEATING & VENTILATION EQUIPMENT CO., LTD.

**C**higo Central Air-conditioning established in 2002, which belongs to GUANGDONG CHIGO AIR CONDITIONING CO.,LTD, a professional Central AC equipment manufacturing and supplying enterprises, with a net of R&D, production,manufac-turing, sales, design, installation and service.

**T**o "Be Professional Central Air-conditioning Supplier", Chigo Central Air-conditioning dedicate to research,design,manuf- acture and sale Central Air-conditioning. During 14 years developing, it has formed an annual production capacity of 1,000,000 sets, and become the most complete refrigeration industrial chain in China. All-in-one Production strategy can meet the various market demand and enable CHIGO to be the biggest scale, the width product line, the most complete product series central air-conditioning enterprise in China.

**C**higo Central Air-conditioning marketing net have covered more than 150 countries and regions all over the world, and set agencies at 31 provinces in China. It has many senior engineers to provide professional design and appropriate service for customers.







# Testing Center

The Testing Center is a comprehensive, multi-functional laboratory, mainly used to engage residential and commercial air-conditioner's performance, safety, reliability and authentication testing. It takes 6000 square meters, 50 million RMB permanent assets.

It has 9 Air-enthalpy Labs, 3 Condition operating labs, 1 Noise Testing Lab, 2 Long-term Operating Labs, Security Structure Analysis Lab, Air Volume Lab; and labs in planning, EMC, Wet State, Thermal Equilibrium, Capacity Testing and so on.



Chinese Energy Efficiency Label Management Center's Verification.



Long-term Cooperation with Professional Certification Test Organization.



World-class Professional HR.



Denmark B&K 3560 Acoustics and Vibration Noise Test Analysis System.



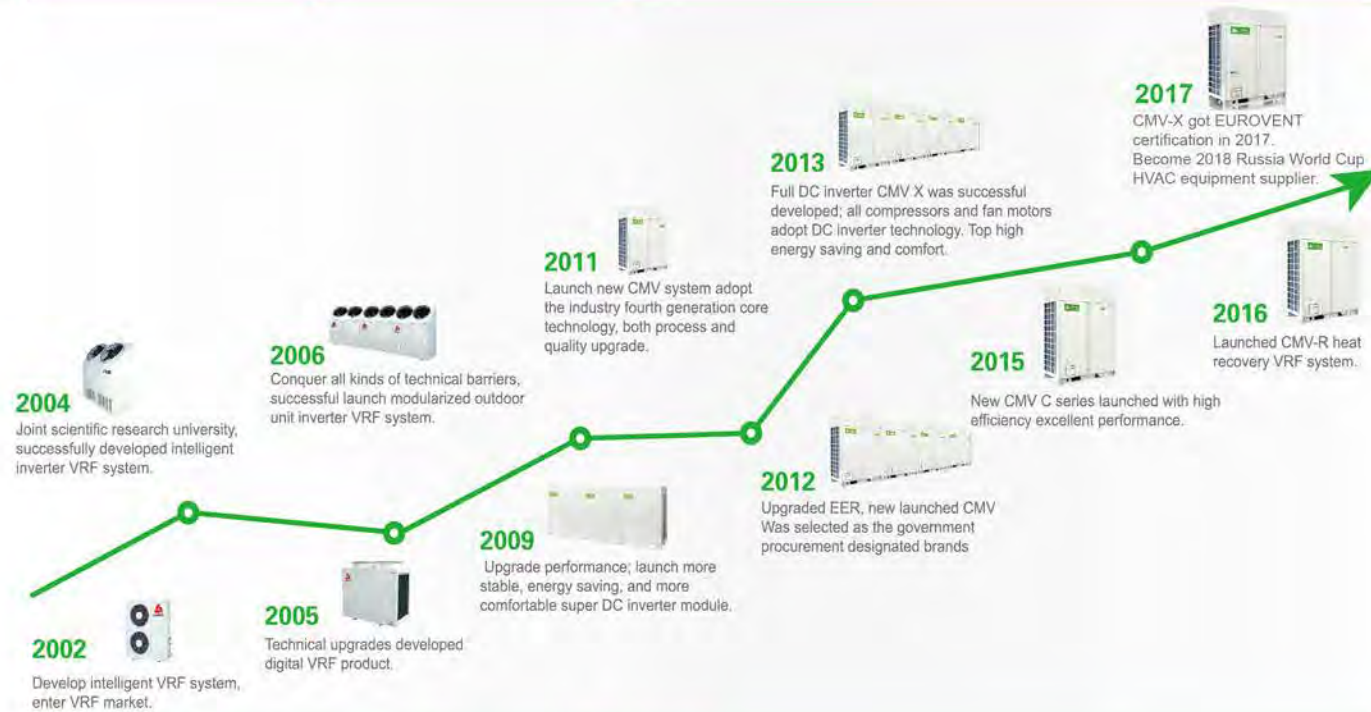
15 Engineers, all had got professional training before commencement.

## Directory

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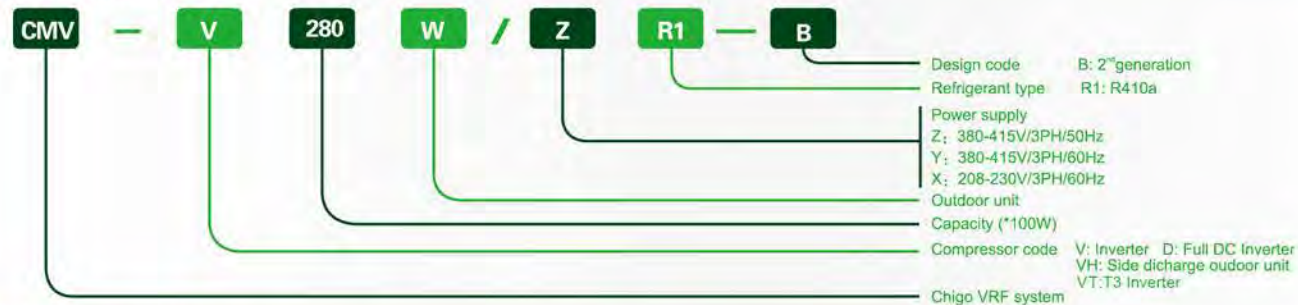


## CMV Development History

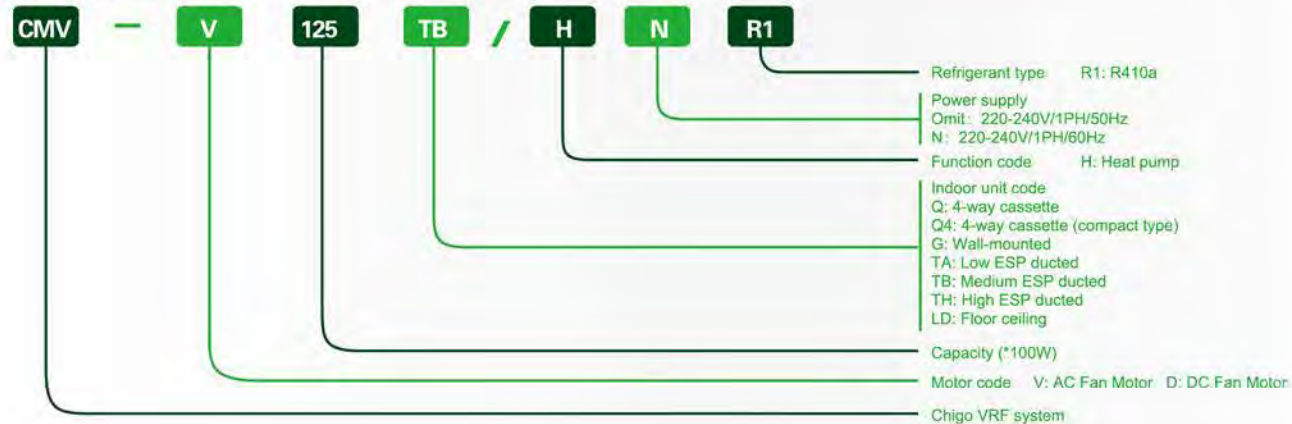


## How To Read The Model Name

### Outdoor unit



### Indoor unit



## CMV-X 380V - 415V / 50Hz & 60Hz FULL DC INVERTER VRF SYSTEM

## Basic Modules

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



8/10HP



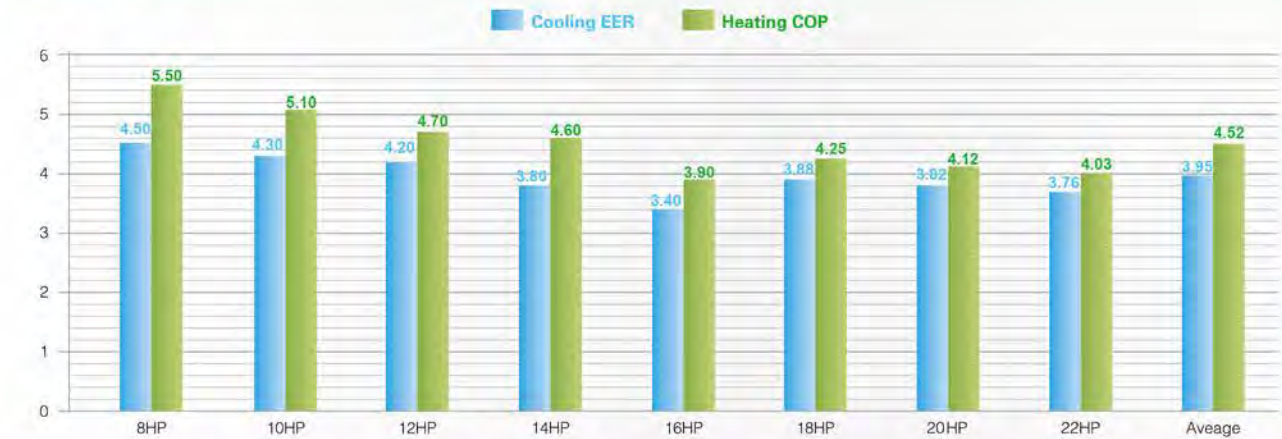
12/14/16HP



18/20/22HP

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	DC+DC
Fan motor	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

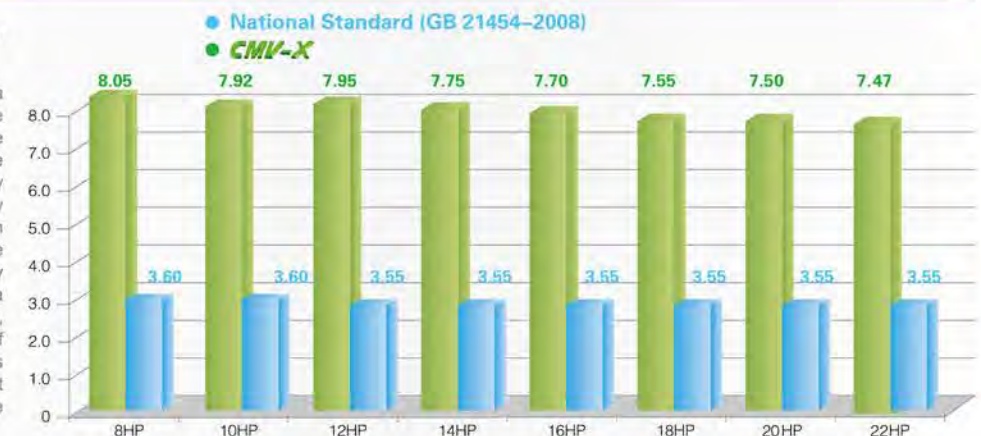
## EER & COP



## 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 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.



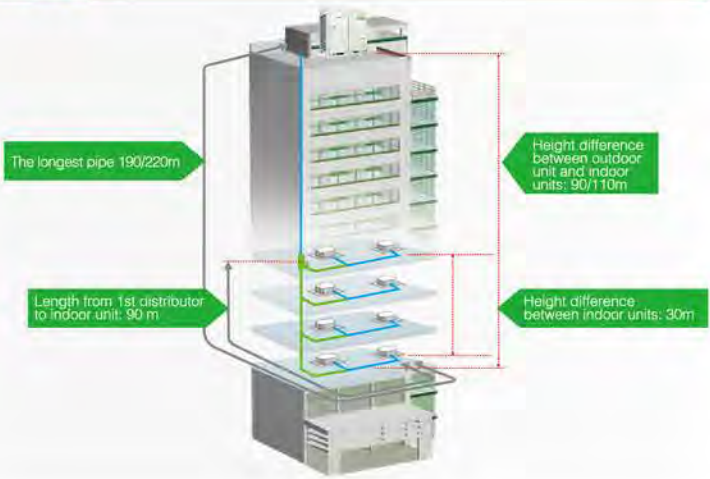


# Combination Table

Cooling Capacity										Max. Connected Indoor Unit Quantity
HP	Cooling Capacity(KW)	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	
8	25.2	●								13
10	28		●							16
12	33.5			●						16
14	40				●					20
16	45					●				20
18	50						●			20
20	56							●		24
22	61.5								●	24
24	67			●●						28
26	73		●			●				28
28	78		●				●			28
30	84		●					●		32
32	89.5		●						●	32
34	95			●					●	36
36	101					●		●		36
38	106.5					●			●	36
40	112							●●		42
42	117.5							●	●	42
44	123								●●	42
46	129		●			●		●		48
48	134.5		●			●			●	48
50	140		●					●●		54
52	145.5		●					●	●	54
54	151		●						●●	54
56	156.5			●					●●	58
58	162.5					●		●	●●	58
60	168					●			●●	58
62	173						●		●●	64
64	179							●	●●	64
66	184.5								●●	64
68	190.5		●			●		●	●●	64
70	196		●			●			●●	64
72	201.5		●					●●	●	64
74	207		●					●	●●	64
76	212.5		●						●●	64
78	218			●					●●	64
80	224					●		●	●●	64
82	229.5					●			●●	64
84	234.5						●		●●	64
86	240.5							●	●●	64
88	246								●●	64

# Long Piping & Height Difference

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



# CMV-X 208V-230V / 60Hz FULL DC INVERTER VRF SYSTEM

## Basic Modules

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



8/10HP



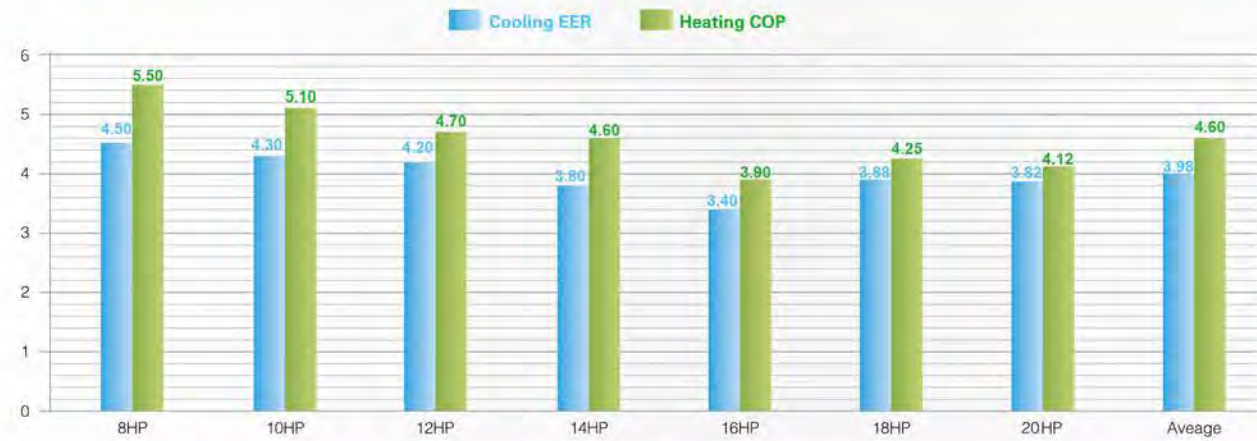
12/14/16HP



18/20HP

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

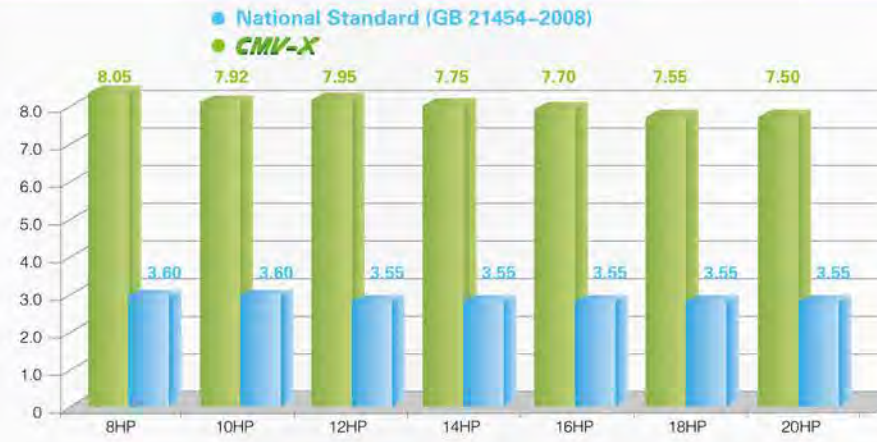
## EER & COP



## 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 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)	Cooling Capacity							Max. Connected Indoor Unit Quantity
		8HP	10HP	12HP	14HP	16HP	18HP	20HP	
8	25.2	●							13
10	28		●						16
12	33.5			●					16
14	40				●				20
16	45					●			20
18	50						●		20
20	56							●	24
22	61.5		●	●					24
24	68			●					28
26	73		●			●			28
28	78		●				●		28
30	84		●					●	32
32	89.5			●				●	32
34	95					●	●		36
36	101					●		●	36
38	106						●	●	36
40	112							●	42
42	117.5		●	●				●	42
44	123			●				●	42
46	129		●			●		●	48
48	134		●				●	●	48
50	140		●					●	54
52	145.5			●				●	54
54	152				●			●	54
56	157					●		●	58
58	162						●	●	58
60	168						●	●	58
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: 1000m
- The longest pipe :
  - Actual length 190m
  - Equivalent length 220m
- Equivalent length from first indoor distributor to last indoor unit: 90m
- Height difference between indoor and outdoor unit:
  - Outdoor unit above <90m
  - Outdoor unit below <110m
- Height difference between indoor units: 30m



## CMV-T 380V - 415V / 50Hz & 60Hz TROPICAL TYPE (T3 TYPE) FULL DC INVERTER VRF SYSTEM

### Basic Modules

CMV-T is CHIGO's latest generation VRF product, it has wide operation range, cooling operating temperature is up to 55°C.



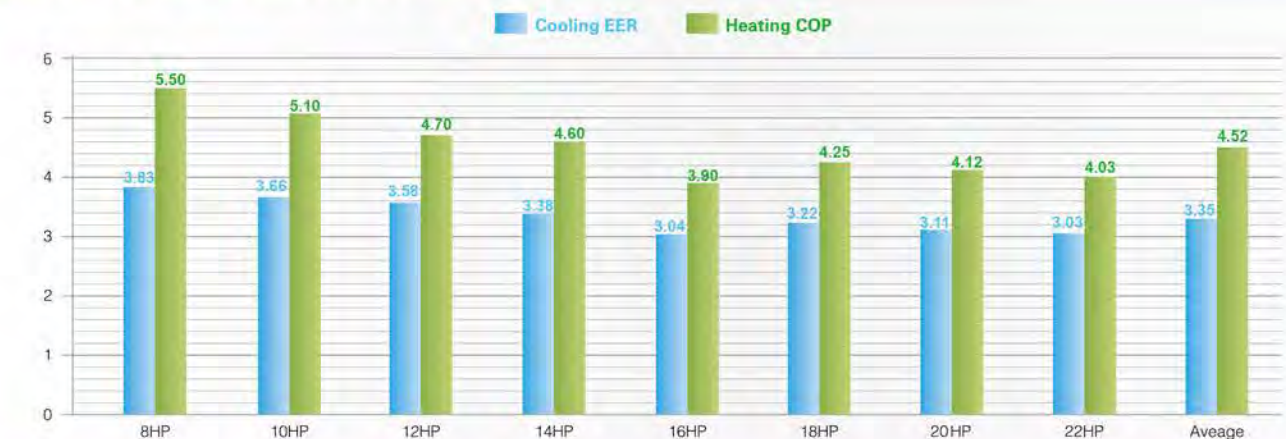
8/10HP



12/14/16/18/20/22HP

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	DC+DC
Fan motor	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

### EER (T3 CONDITION) & 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 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)	Cooling Capacity								Max. Connected Indoor Unit Quantity
		8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	
8	25.2	●								13
10	28		●							16
12	33.5			●						16
14	40				●					20
16	45					●				20
18	50						●			20
20	56							●		24
22	61.5								●	24
24	67			●	●					28
26	73		●			●				28
28	78		●				●			28
30	84		●					●		32
32	89.5		●						●	32
34	95			●					●	36
36	101					●		●		36
38	106.5					●			●	36
40	112						●	●		42
42	117.5							●	●	42
44	123								●	42
46	129		●			●		●		48
48	134.5		●			●			●	48
50	140		●				●	●		54
52	145.5		●					●	●	54
54	151		●						●	54
56	156.5			●					●	58
58	162.5					●		●	●	58
60	168					●			●	58
62	173						●		●	64
64	179							●	●	64
66	184.5								●	64
68	190.5		●			●		●	●	64
70	196		●			●			●	64
72	201.5		●				●	●	●	64
74	207		●					●	●	64
76	212.5		●						●	64
78	218			●					●	64
80	224					●		●	●	64
82	229.5					●			●	64
84	234.5						●		●	64
86	240.5							●	●	64
88	246								●	64

## Long Piping & Height Difference

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



## CMV-C 380V - 415V / 50Hz & 60Hz DC INVERTER VRF SYSTEM

### Basic Modules

CMV -C is a upgraded product base on CMV -II, it has higher energy saving efficiency by adopting high efficiency big displacement compressors.



8/10HP



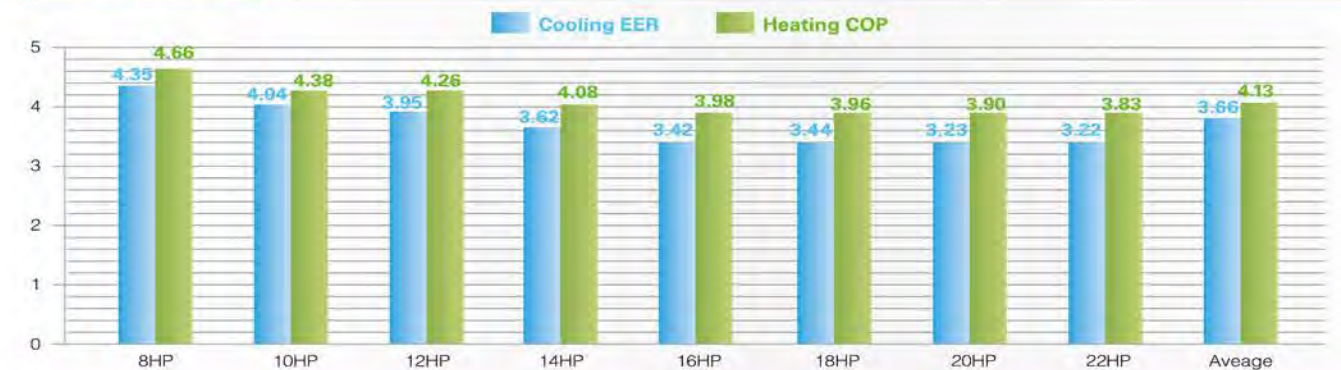
12/14/16HP



18/20/22HP

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+FIX	DC+FIX	DC+FIX	DC+FIX+FIX	DC+FIX+FIX
Fan motor	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

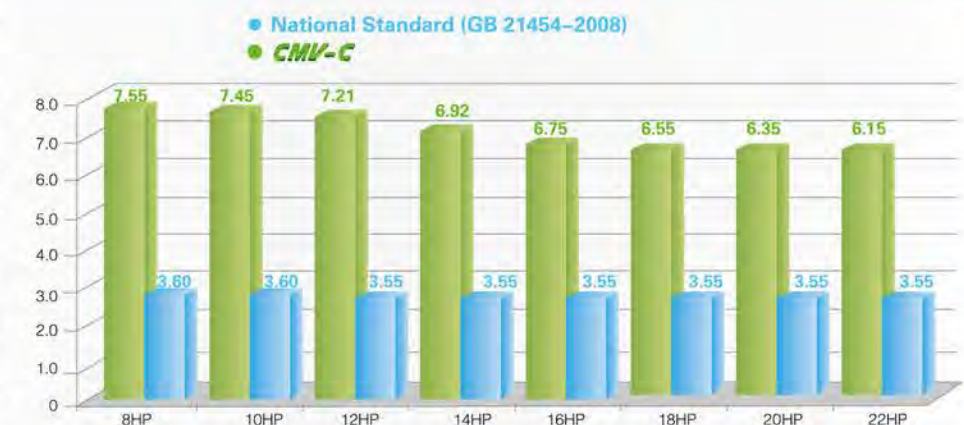
### EER & COP



### IPLV(C)

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

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# Combination Table

Cooling Capacity										
HP	Cooling Capacity(KW)	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	Max. Connected Indoor Unit Quantity
8	25.2	●								13
10	28		●							16
12	33.5			●						16
14	40				●					20
16	45					●				20
18	50						●			20
20	56							●		24
22	61.5								●	24
24	67			●●						28
26	73		●			●				28
28	78		●				●			28
30	84		●					●		32
32	89.5		●						●	32
34	95			●					●	36
36	101					●		●		36
38	106.5					●			●	36
40	112							●●		42
42	117.5							●	●	42
44	123								●●	42
46	129		●			●		●		48
48	134.5		●			●			●	48
50	140		●					●●		54
52	145.5		●					●	●	54
54	151		●						●●	54
56	156.5			●					●●	58
58	162.5					●		●	●	58
60	168					●			●●	58
62	173						●		●●	64
64	179							●	●●	64
66	184.5								●●●	64
68	190.5		●			●		●	●	64
70	196		●			●			●●	64
72	201.5		●					●●	●	64
74	207		●					●	●●	64
76	212.5		●						●●●	64
78	218			●					●●●	64
80	223					●		●	●●	64
82	229.5					●			●●●	64
84	234.5						●		●●●	64
86	240.5							●	●●●	64
88	246								●●●●	64

# Long Piping & Height Difference

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



380V - 415V / 50Hz  
INDIVIDUAL TYPE VRF SYSTEM

# 8 Models

CMV -i is not a modular product, it is individual type which is developed for those projects need high cost-performance ratio AC equipments.



18/20/22/24HP



26/28/30/32HP

Capacity	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
	53kW	56kW	60W	67kW	73kW	80kW	85kW	90kW
Compressor	DC+FIX+FIX				DC+FIX+FIX+FIX			
Fan motor	DC+AC				DC+AC+AC+AC			

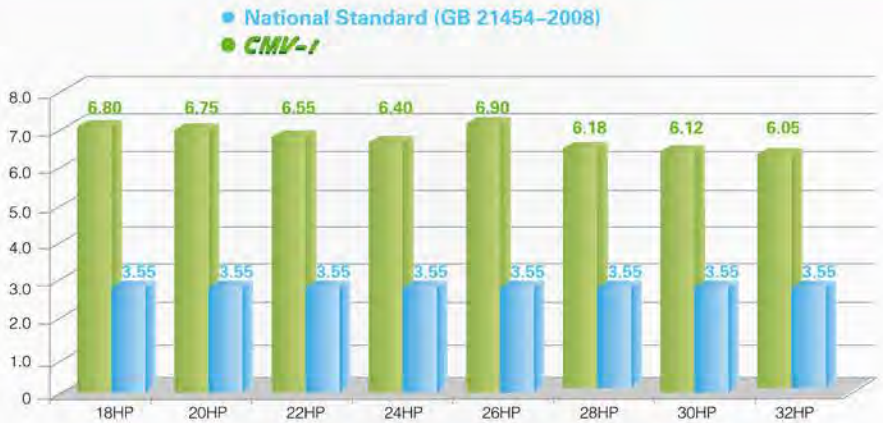
# EER & COP



# IPLV(C)

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

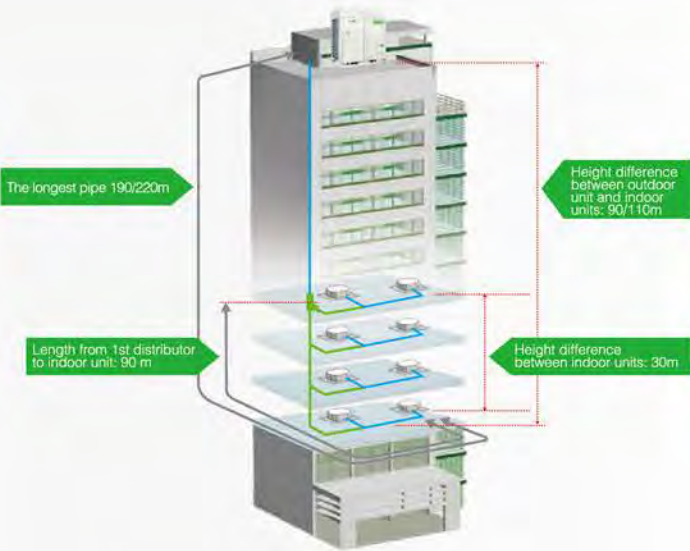
The Integrated Part Load Value (IPLV) is a performance characteristic developed by the Air-Conditioning, Heating and Refrigeration Institute (AHRI). It is most commonly used to describe the performance of a AC system capable of capacity modulation. Unlike an EER (Energy Efficiency Ratio) or COP (coefficient 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 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.





Long Piping & Height Difference

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- The longest pipe :
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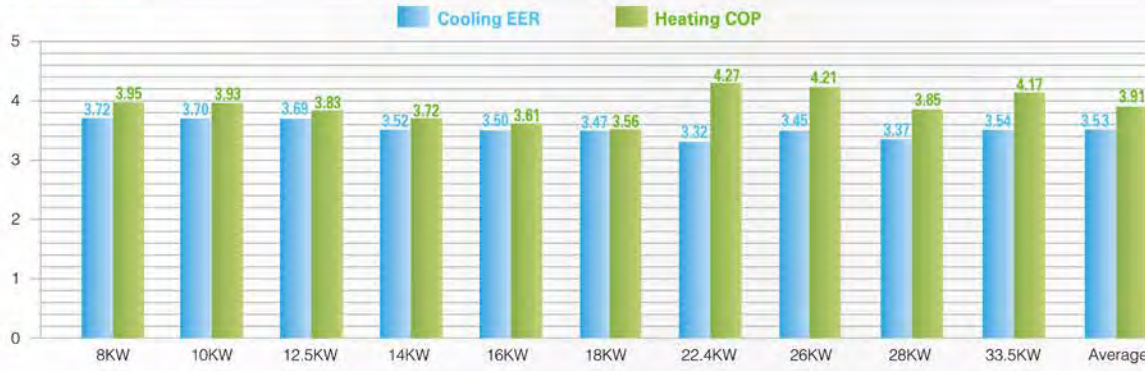
10 Models



Capacity	8kW	10kW	12.5kW	14kW	16kW	18kW	22.4kW	26kW	28kW	33.5kW
Compressor	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

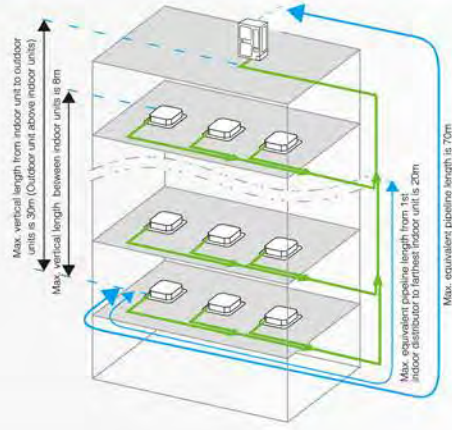
Power type		208-230V	380-415V
50HZ	1 phase	8/10/12.5/14/16kW	
	3 phase		12.5/14/16/18/22.4/26/28/33.5kW
60HZ	1 phase	8/10/12.5/14/16kW	
	3 phase		12.5/14/16/18/22.4/26/28/33.5kW

EER & COP



Long Piping & Height Difference

- The total pipe length: 100m (8-18kW), 120m (22.4-33.5kW)
- The longest pipe :
  - 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





# CMV-X CMV-T CMV-C CMV-I



- High Efficiency
- Benefits For Users
- Benefits For Installers

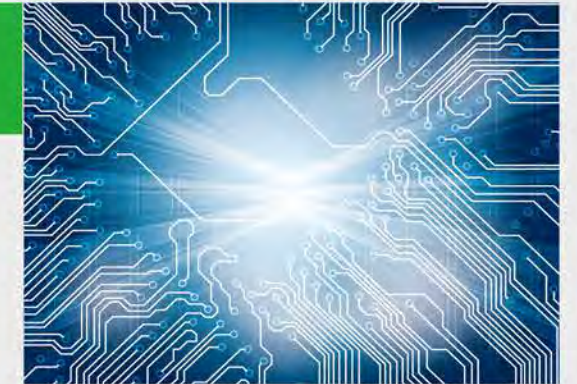


## Advantages

### High Efficiency

#### Low carbon life advocate

Chigo CAC 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

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●





# High Efficiency DC Inverter Compressor



CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- From Hitachi, famous inverter compressor manufacture.
- R410a ECO friendly refrigerant.
- Small torque fluctuation, low vibration and quiet operation.
- High efficiency due to its patent internal structure design.
- Internal oil circulation structure.
- High Reliability.
- Wide rotation speed range.
- Neodymium permanent magnet rotor, has powerful magnetic force, large torque and high efficiency.
- Concentrated winding, improving low frequency efficiency.



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

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- 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.



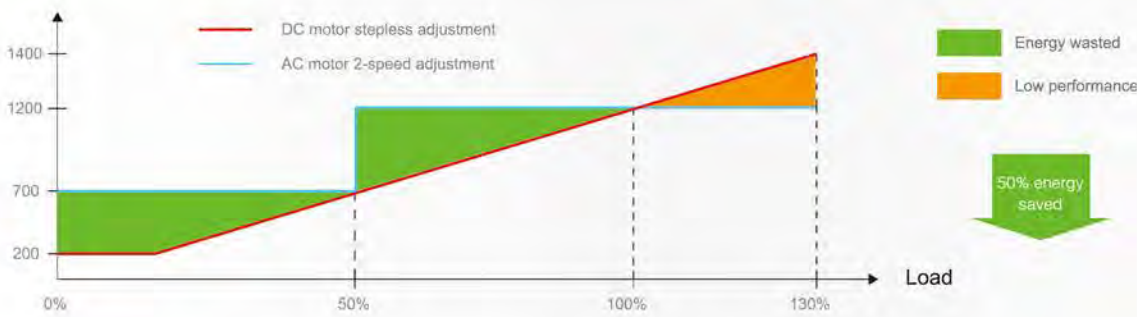
DC fan motor

# Stepless Control

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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

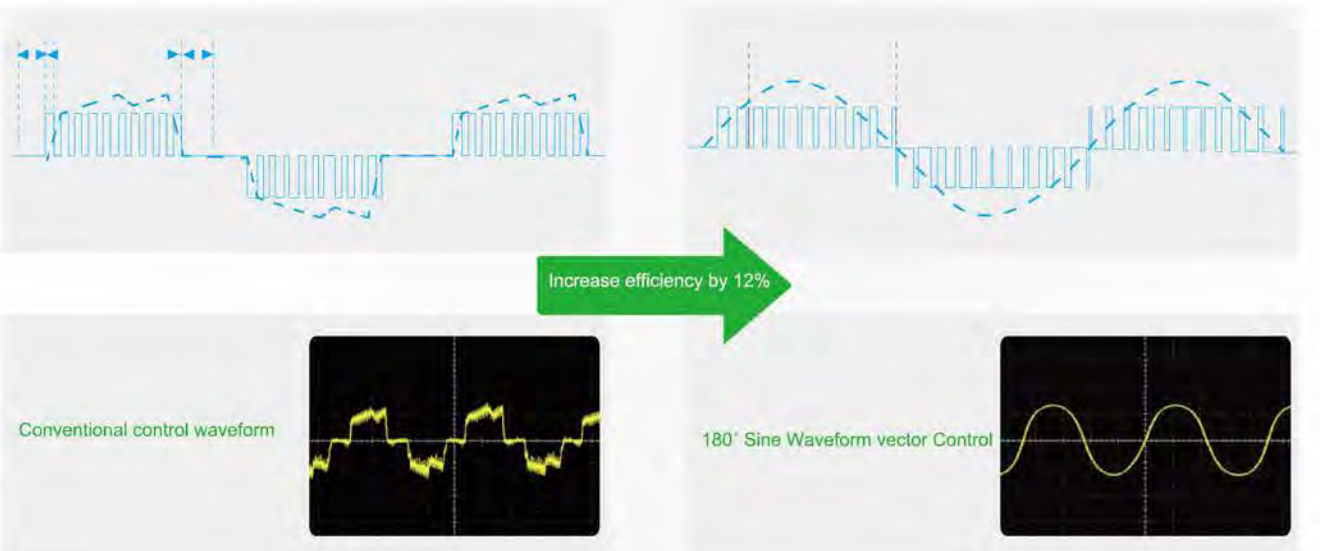
Load-Revolution curve



# 180° Sine Waveform Control

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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%.

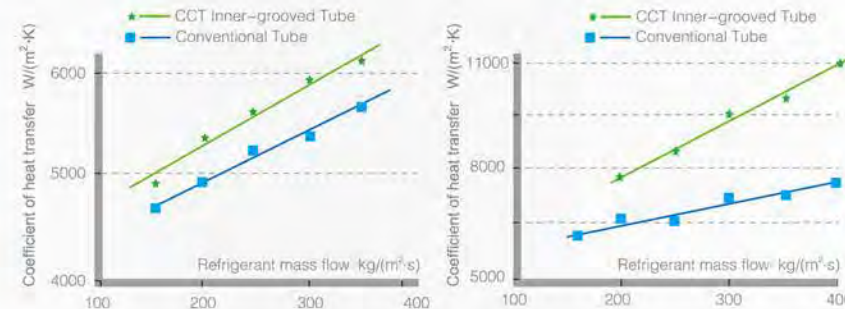
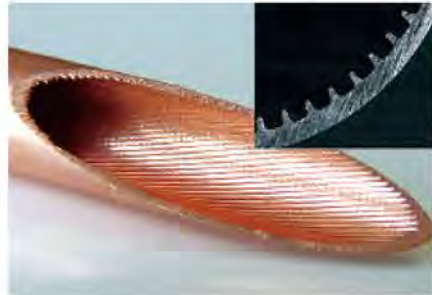




## CCT Inner-grooved Tube

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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



## Supercooling Flow Path Design

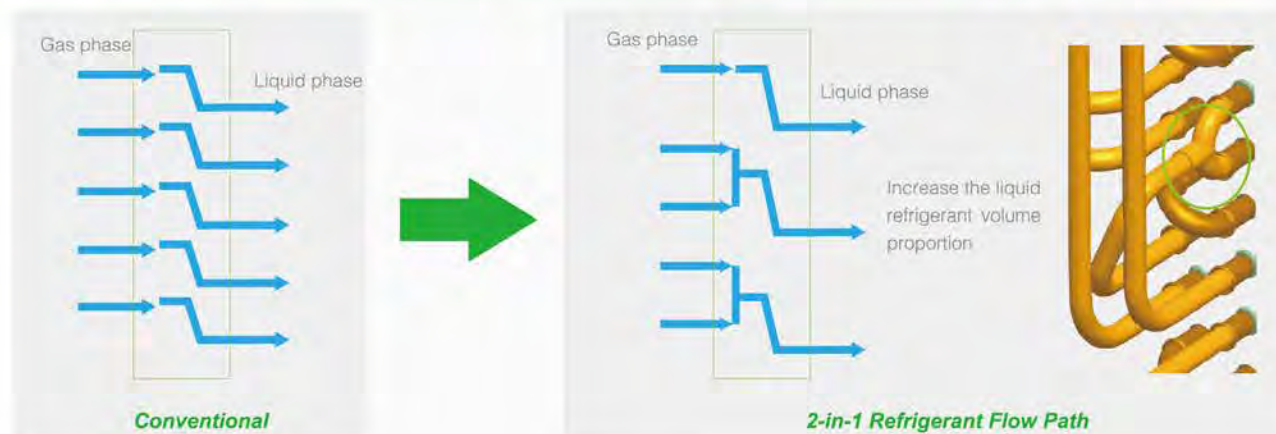
CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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.



## 2-in-1 Refrigerant Flow Path Design

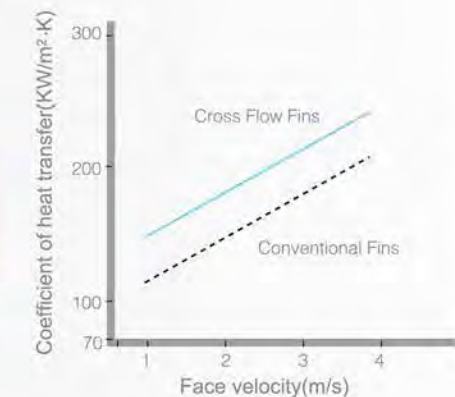
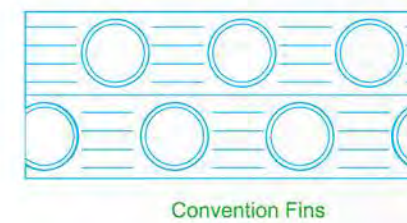
CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●



## Cross Flow Fins

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

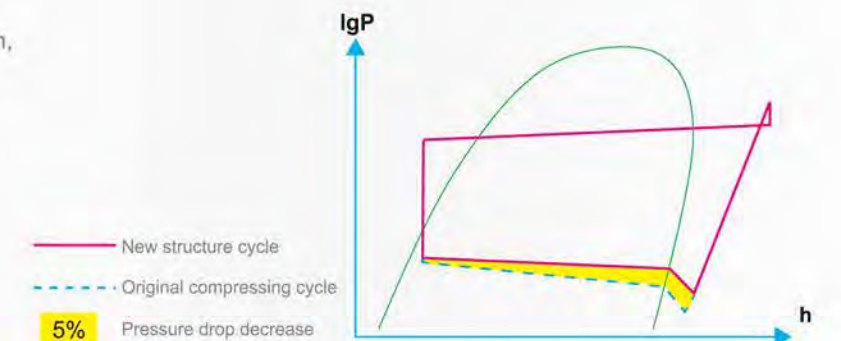
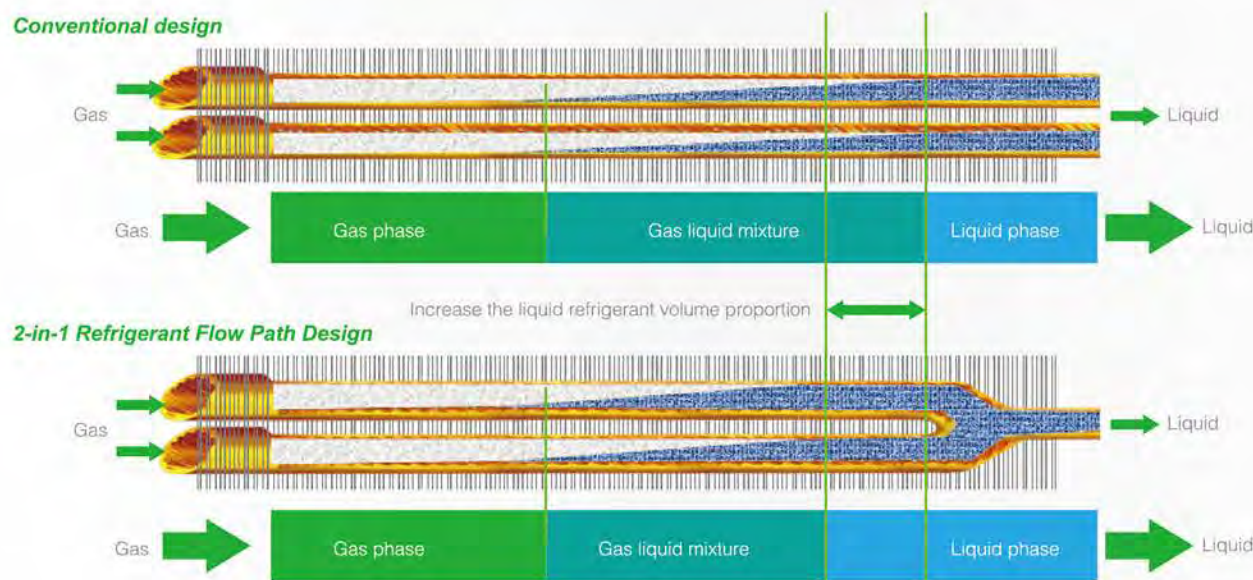
- Has low air resistance and great heat transfer coefficient.
- Frosting improved, frost on the heat-exchanger will be well-distributed, easy for defrosting.



## Low Resistance Internal piping

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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





# Benefits For Users

## Livable environment creator

Chigo focuses on starting point of AC system: create a friendly, comfortable and pleasant living environment as always. New CMV DC 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.....

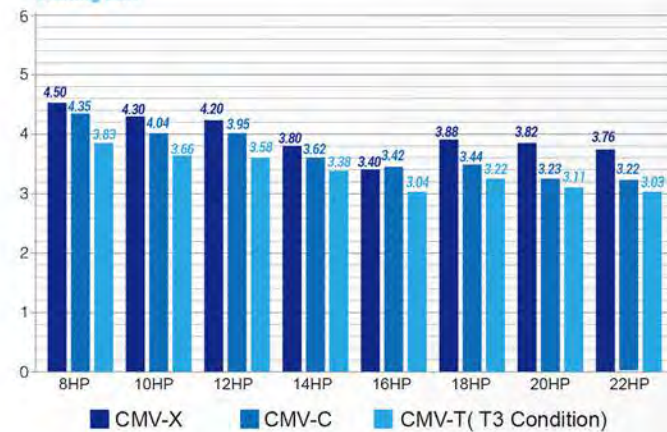


## Excellent in EER and COP

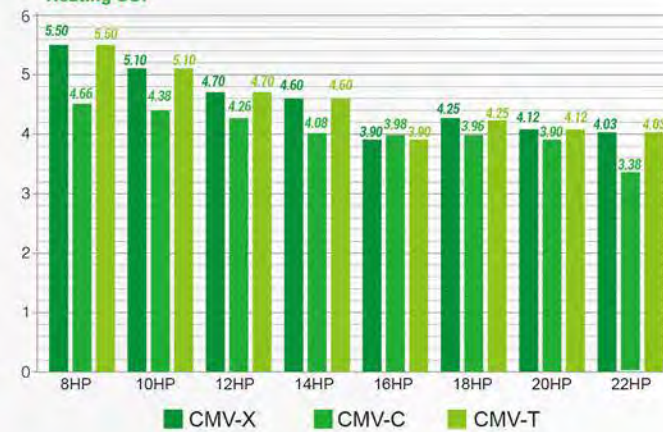
CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

Thanks to DC devices(compressor and motor), piping optimization design and new refrigerant control logic, system's EER and COP are significantly increase.

Cooling EER



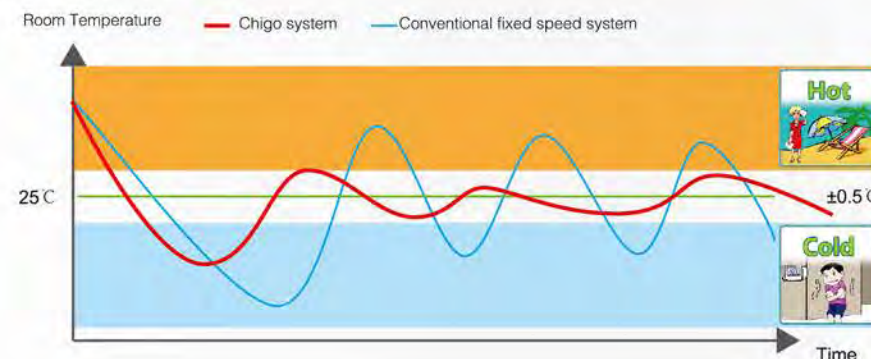
Heating COP



## Outstanding Comfort Ability

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

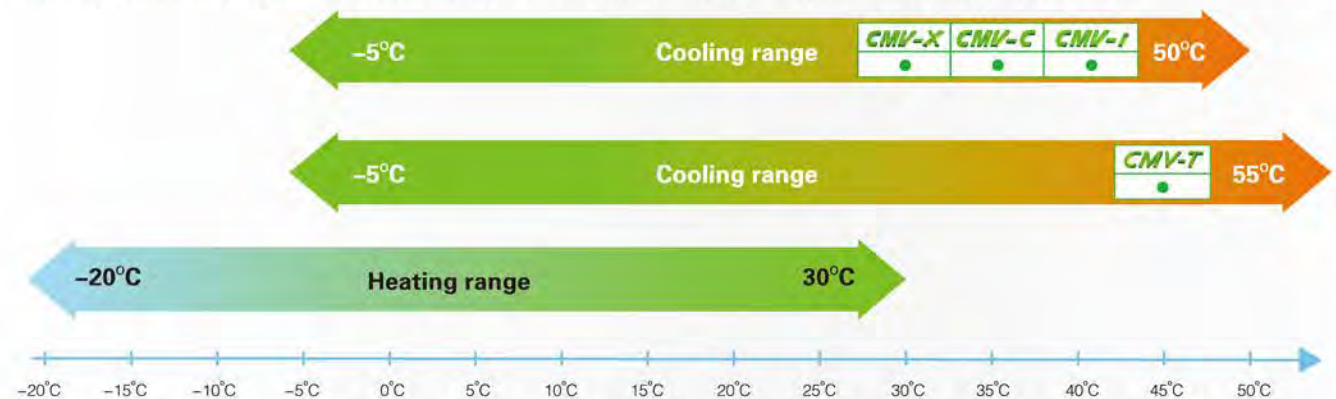
- Chigo CMV system have excellent cooling & heating performance, thanks to the high efficiency DC fan motor, DC compressor and optimized refrigerant flow control logic.
- Precisely room temperature control by adopting 2000 pulse EXV. Indoor temperature fluctuation can be maintain within 0.5 °C, offers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



## Wide Operation Range

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- Cooling operating temperature is up to 50°C, suitable for the hot region. For T3 VRF units, the cooling operating temperature is up to 55°C.
- Heating operating temperature is down to -20°C. In the cold winter, CMV system can stably produce heat.



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

## 7 Improvements To Reduce Noise

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

Maximum 10dB(A) of operating sound decrease.



## Low Noise Fan Blade

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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

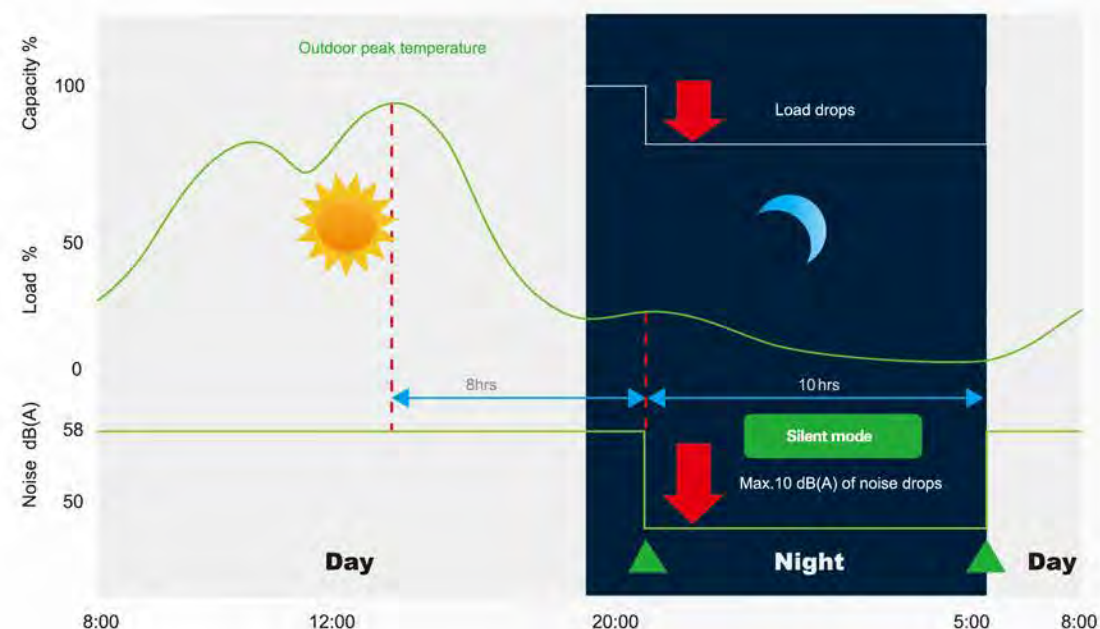




## Silent Mode, Night Time Noise Control

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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



## Snow-proof Function

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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



## The PHE Economizer

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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



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.

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●



- Compressor back up function.
- When one compressor is failure, the other one can keep running by simply settings.

CMV-X	CMV-T
●	●



- Fan motor back up function.
- When one fan motor is failure, the other one can keep running by simply settings.

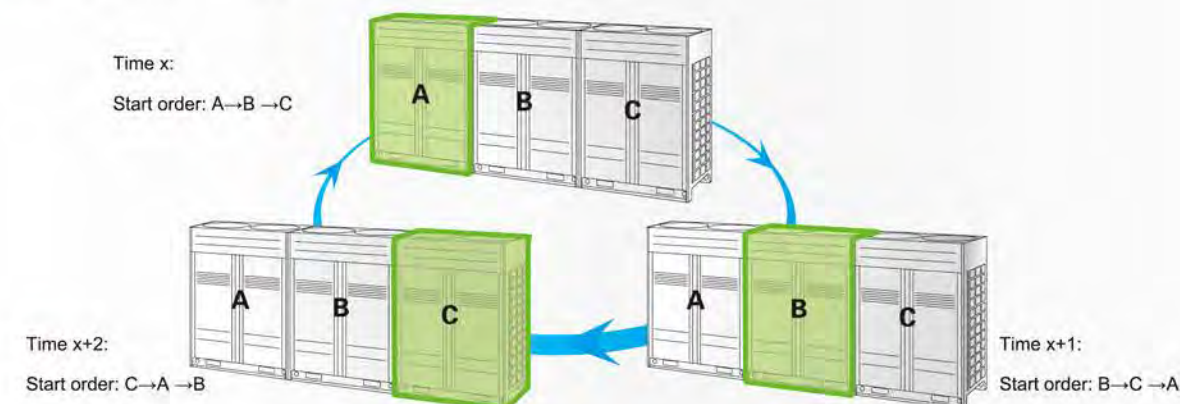
CMV-X	CMV-T
●	●



## All Outdoor Units Cycle Operation

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

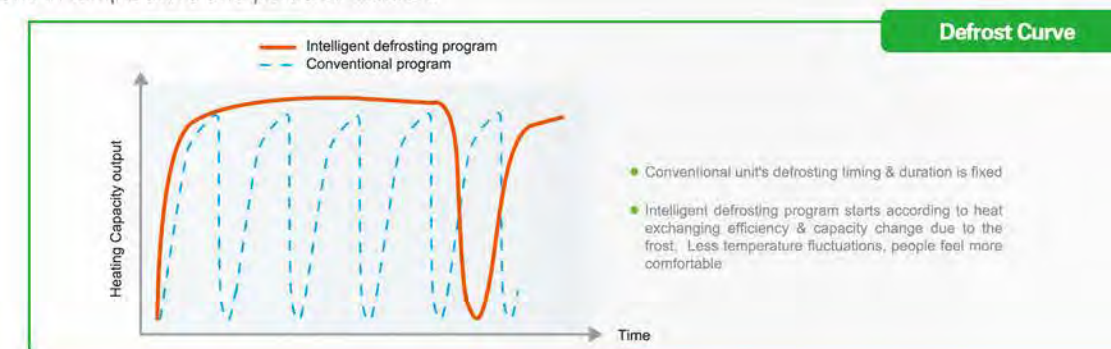
- In one combination system, any outdoor unit can run as master unit.
- Balance the lifespan among outdoor units in one system.



## Intelligent Defrosting Program

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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



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



## Remote ON/OFF Control Function

CMV-X	CMV-T	CMV-C	CMV-I
•	•	•	•

- 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 pervious running state.



## Emergency Stop Operation Function

CMV-X	CMV-T	CMV-C	CMV-I
•	•	•	•

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

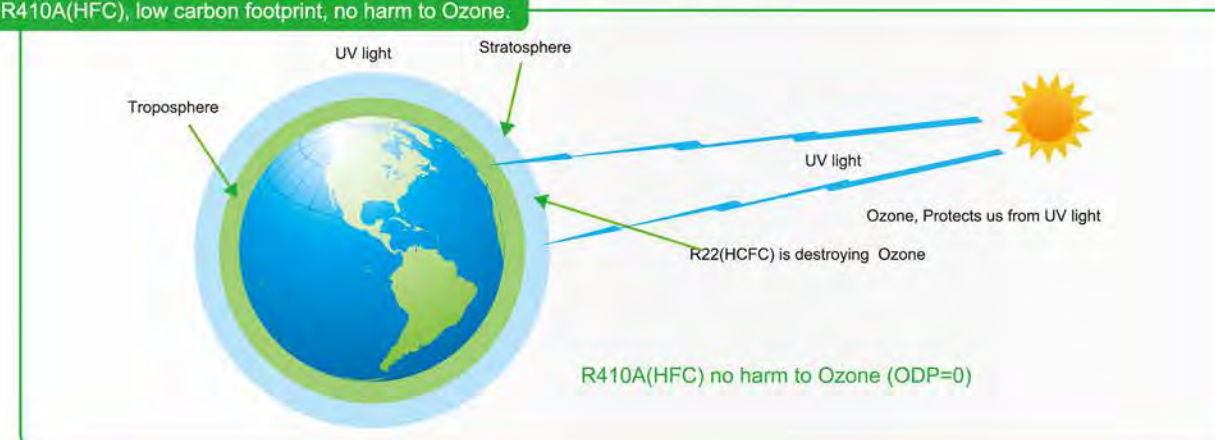


## Environment Friendly

CMV-X	CMV-T	CMV-C	CMV-I
•	•	•	•

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

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



## 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 occupied to meet the demand of designer and installer. Some unique technologies are used for our installers to reduce their working load, installation is becoming easier and easier!

## 4 Units Combination, Capacity Up To 88HP

CMV-X	CMV-T	CMV-C	CMV-I
•	•	•	•

Max. outdoor units can be combined into a bigger system, capacity can be up to 88HP.



## Individual Type, Saving Installation Work

CMV-X	CMV-T	CMV-C	CMV-I
•	•	•	•

Individual type outdoor unit is already combined in chigo factory, installer can save outdoor unit combination work.





## Adjustable Outdoor Fan Static Pressure

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

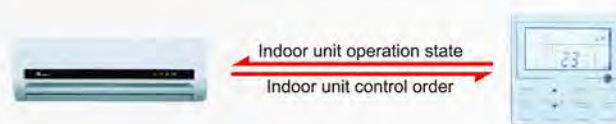
- Thanks to DC fan motor, the external static pressure of outdoor fan is adjustable.
- Outdoor units can be installed in the service floor or facility room.
- Maximum ESP 85Pa.



## Bidirectional Communication Wired Controller

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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



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



## Touch Screen Wired Controller

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- APP remote control by WIFI.
- 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.



## Automatic Addressing

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- 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.



## Addressing Methods

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- 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.



## LED Display On The PCB

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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



## Service Window

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

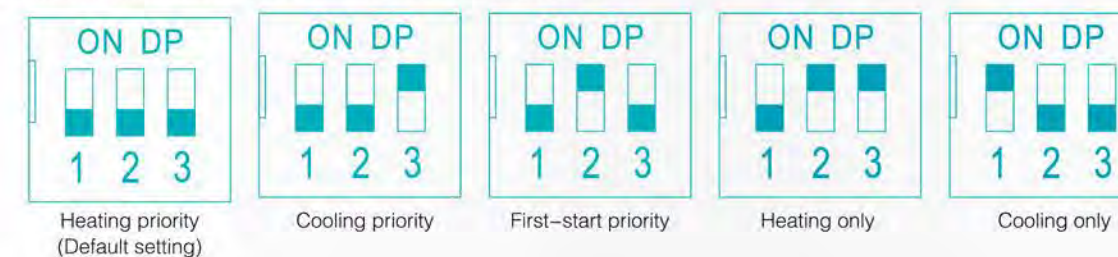
Thanks to the service window, checking outdoor unit's status and setting is now easy, no need to remove the electric control box cover.



## Mode Restriction

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- 5 kinds of mode restriction
  - First start indoor units priority mode.
  - Cooling(or heating)priority mode.
  - Cooling only(or heating only)mode.
- Mode restriction function can be selected on the outdoor PCB.





## Humanized Internal Structure

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- 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.



## 6-Stage Oil Control

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

1st stage: Compressor internal oil separation



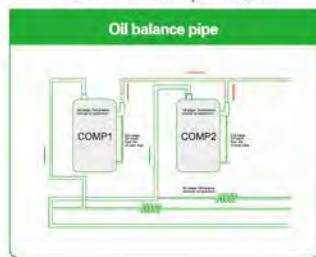
2nd stage: Oil return from the oil even pipe



3rd stage: Oil return from the system oil separator



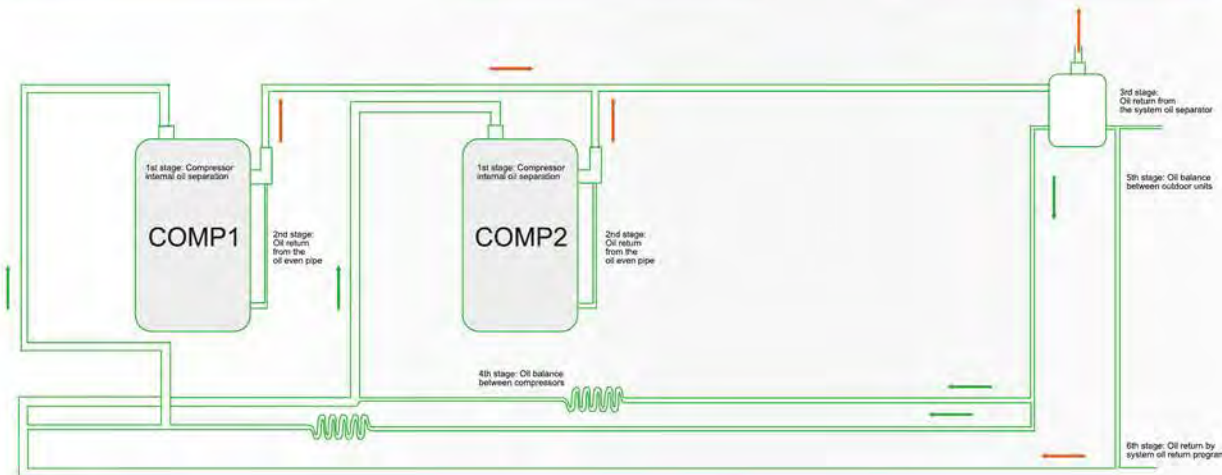
4th stage: Oil balance between compressors



5th stage: Oil balance between outdoor units



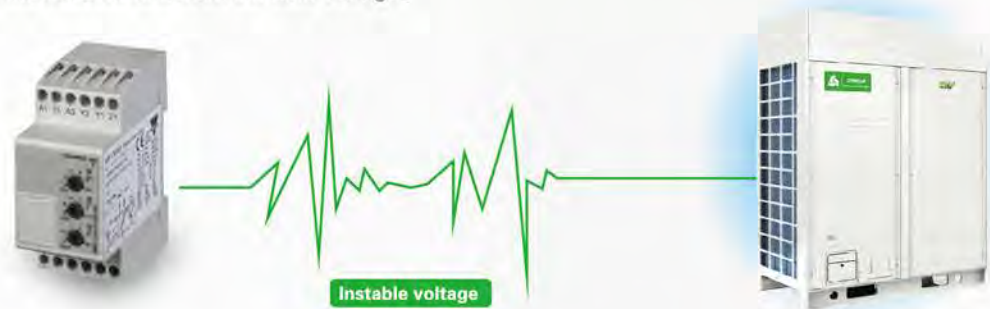
6th stage: Oil return by system oil return program



## 3-Phase Power Protector (Optional)

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

Protect the outdoor unit from instable voltage.



## Easy Installation

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

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



## Use 2-Core Shielded Wire As Signal Wire

CMV-X	CMV-T	CMV-C	CMV-I
●	●	●	●

- Save installation cost.
- Reduce manual works.





**CMV-X** 380V - 415V / 50Hz & 60Hz  
FULL DC INVERTER VRF SYSTEM

			Basic modules										2 modules combination										
HP			08	10	12	14	16	18	20	22		24	26	28	30	32	34	36	38	40	42	44	
Model Name	380~415V/3PH/50Hz		CMV-D252W/ZR1	CMV-D280W/ZR1	CMV-D335W/ZR1	CMV-D400W/ZR1	CMV-D450W/ZR1	CMV-D500W/ZR1	CMV-D560W/ZR1	CMV-D615W/ZR1		CMV-D670W/ZR1	CMV-D730W/ZR1	CMV-D780W/ZR1	CMV-D840W/ZR1	CMV-D895W/ZR1	CMV-D950W/ZR1	CMV-D1010W/ZR1	CMV-D1065W/ZR1	CMV-D1120W/ZR1	CMV-D1175W/ZR1	CMV-D1230W/ZR1	
	380~415V/3PH/60Hz		CMV-D252W/YR1	CMV-D280W/YR1	CMV-D335W/YR1	CMV-D400W/YR1	CMV-D450W/YR1	CMV-D500W/YR1	CMV-D560W/YR1	CMV-D615W/YR1		CMV-D670W/YR1	CMV-D730W/YR1	CMV-D780W/YR1	CMV-D840W/YR1	CMV-D895W/YR1	CMV-D950W/YR1	CMV-D1010W/YR1	CMV-D1065W/YR1	CMV-D1120W/YR1	CMV-D1175W/YR1	CMV-D1230W/YR1	
Max. Connected indoor units quantity			13	16	16	20	20	20	24	24		28	28	28	32	32	36	36	36	42	42	42	
Performance data																							
Cooling	Capacity	KW	25.2	28.0	33.5	40.0	45.0	50.0	56.0	61.5		67.0	73.0	78.0	84.0	89.5	95.0	101.0	106.5	112.0	117.5	123.0	
		Btu/h	85000	95000	114000	136000	153000	170000	191000	209000		228000	249000	266000	286000	305000	324000	344000	363000	382000	400000	419000	
		RT	7.1	7.9	9.5	11.3	12.7	14.2	15.9	17.4		19.0	20.7	22.1	23.8	25.4	27.0	28.7	30.2	31.8	33.4	34.9	
	Power input	KW	5.60	6.51	7.98	10.53	13.24	12.89	14.66	16.36		15.95	19.75	19.33	21.02	22.96	24.42	27.74	29.68	29.02	30.95	32.89	
Heating	Power input	W/W	4.50	4.30	4.20	3.80	3.40	3.88	3.82	3.76		4.20	3.70	4.03	4.00	3.90	3.89	3.64	3.59	3.86	3.80	3.74	
		EER																					
		Capacity	KW	27.4	31.5	37.5	45.0	50.0	56.0	63.0	69.0		75.0	81.5	87.5	94.5	100.5	106.5	113.0	119.0	126.0	132.0	138.0
	Power input	Btu/h	93000	107000	127000	153000	170000	191000	214000	235000		255000	278000	298000	322000	342000	363000	385000	406000	429000	450000	470000	
Physical data	COP	kW	4.98	6.18	7.98	9.78	12.82	13.18	15.29	17.12		15.96	19.00	19.35	21.47	23.30	25.10	28.11	29.94	30.58	32.41	34.24	
		W/W	5.50	5.10	4.70	4.60	3.90	4.25	4.12	4.03		4.70	4.29	4.52	4.40	4.31	4.24	4.02	3.97	4.12	4.07	4.03	
	Compressor	Quantity		1DC			2DC						1DC+1DC	1DC+2DC			2DC+2DC						
Refrigerant	Type					Hermatic scroll									Hermatic scroll								
	Type					R410A									R410A								
	Throttle type					EXV									EXV								
Motor	Volume	Kg	10			12			16			16.5			17								
	Type					DC motor									DC motor								
	Quantity					2DC						2DC+2DC	1DC+2DC			2DC+2DC							
Dimension (W×D×H)	ESP	Pa				85									85								
	Net	mm	970×765×1620			1260×765×1620			1349×765×1620						/								
	Packing	mm	1030×825×1750			1315×825×1750			1405×825×1780						/								
Net weight		Kg	208			242			286			295			312			323			/		
Sound pressure level		dB(A)	208			58			60			60			63			/					
Piping data																							
Total equivalent pipeline length < 90m	Liquid	mm	Ø9.52	Ø12.7			Ø15.88						Ø15.88	Ø19.05			Ø19.05						
	Gas	mm	Ø22.2	Ø25.4			Ø28.6			Ø31.80			Ø31.80			Ø34.90			Ø38.10				
Total equivalent pipeline length ≥ 90m	Liquid	mm	Ø12.7			Ø15.88			Ø19.05			Ø19.05			Ø22.20			Ø22.20					
	Gas	mm	Ø25.4			Ø28.6			Ø31.8			Ø34.90			Ø38.10			Ø41.30					
Oil balance pipe		mm				/									Ø6.35								

- Notes: 1. Cooling operating temperature range is from -5°C to 50°C. Heating operating temperature range is from -20°C to 30°C  
2. The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)WB outdoor side 35°C(95°F) DB  
3. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB outdoor side 7°C(42.8°F)DB  
4. Sound level: measured at a point 1 m in front of the unit at a height of 1.3 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.

			3 modules combination										3 modules combination			4 modules combination											
HP			46	48	50	52	54	56	58	60	62		64	66	68	70	72	74	76	78	80	82	84	86	88		
Model Name	380~415V/3PH/50Hz		CMV-D1290W/ZR1	CMV-D1345W/ZR1	CMV-D1400W/ZR1	CMV-D1455W/ZR1	CMV-D1510W/ZR1	CMV-D1565W/ZR1	CMV-D1625W/ZR1	CMV-D1680W/ZR1	CMV-D1730W/ZR1		CMV-D1790W/ZR1	CMV-D1845W/ZR1	CMV-D1905W/ZR1	CMV-D1960W/ZR1	CMV-D2015W/ZR1	CMV-D2070W/ZR1	CMV-D2125W/ZR1	CMV-D2180W/ZR1	CMV-D2240W/ZR1	CMV-D2295W/ZR1	CMV-D2345W/ZR1	CMV-D2405W/ZR1	CMV-D2460W/ZR1		
	380~415V/3PH/60Hz		CMV-D1290W/YR1	CMV-D1345W/YR1	CMV-D1400W/YR1	CMV-D1455W/YR1	CMV-D1510W/YR1	CMV-D1565W/YR1	CMV-D1625W/YR1	CMV-D1680W/YR1	CMV-D1730W/YR1		CMV-D1790W/YR1	CMV-D1845W/YR1	CMV-D1905W/YR1	CMV-D1960W/YR1	CMV-D2015W/YR1	CMV-D2070W/YR1	CMV-D2125W/YR1	CMV-D2180W/YR1	CMV-D2240W/YR1	CMV-D2295W/YR1	CMV-D2345W/YR1	CMV-D2405W/YR1	CMV-D2460W/YR1		
Max. Connected indoor units quantity			48	48	54	54	54	58	58	58	64		64	64	64	64	64	64	64	64	64	64	64	64	64		
Performance data																											
Cooling	Capacity	KW	129.0	134.5	140.0	145.5	151.0	156.5	162.5	168.0	173.0		179.0	184.5	190.5	196.0	201.5	207.0	212.5	218.0	224.0	229.5	234.5	240.5	246.0		
		Btu/h	440000	458000	477000	496000	515000	533000	554000	573000	590000		610000	629000	649000	668000	687000	706000	725000	743000	764000	783000	800000	820000	839000		
	Power input	RT	36.6	38.2	39.8	41.3	42.9	44.4	46.2	47.7	49.1		50.8	52.4	54.1	55.7	57.2	58.8	60.4	61.9	63.6	65.2	66.6	68.3	69.9		
		EER	3.77	3.72	3.94	3.88	3.83	3.68	3.94	3.83	3.78		3.78	3.74	3.76	3.72	3.88	3.84	3.81	3.80	3.69	3.67	3.77	3.77	3.74		
Heating	Capacity	KW	144.5	150.5	157.5	163.5	169.5	175.5	182.0	188.0	194.0		201.0	207.0	213.5	218.0	226.5	232.5	238.5	244.5	251.0	257.0	263.0	270.0	276.0		
		Btu/h	493000	513000	537000	557000	578000	598000	620000	641000	661000		685000	706000	728000	743000	772000	793000	813000	834000	856000	876000	897000	921000	941000		
	Power input	kW	34.29	36.12	36.76	38.59	40.42	42.22	45.23	47.06	47.42		49.53	51.36	51.41	53.24	53.88	55.71	57.54	59.34	62.35	64.19	64.54	66.66	68.49		
		COP	4.21	4.17	4.28	4.24	4.19	4.16	4.02	3.99	4.09		4.06	4.03	4.15	4.09	4.20	4.17	4.14	4.12	4.03	4.00	4.07	4.05	4.03		
Physical data																											
Compressor	Quantity		1DC+2DC+2DC						2DC+2DC+2DC						1DC+2DC+2DC+2DC						2DC+2DC+2DC+2DC						
	Type		Hermatic scroll												Hermatic scroll												
Refrigerant	Type		R410A												R410A												
	Throttle type		EXV												EXV												
	Volume	Kg	/												/												
Motor	Type		DC motor												DC motor												
	Quantity		1DC+2DC+2DC						2DC+2DC+2DC						1DC+2DC+2DC+2DC						2DC+2DC+2DC+2DC						
	ESP	Pa	85												85												
Dimension (W×D×H)	Net	mm	/												/												
	Packing	mm	/												/												
Net weight		Kg	/												/												
Sound pressure level		dB(A)	/												/												
Piping data																											
Total equivalent pipeline length < 90m	Liquid	mm	Ø19.05						Ø22.2						Ø25.4						Ø25.4						
	Gas	mm	Ø38.10						Ø44.5						Ø44.5						Ø44.5						
Total equivalent pipeline length ≥ 90m	Liquid	mm	Ø22.20						Ø25.4						Ø25.4						Ø25.4						
	Gas	mm	Ø41.30						Ø44.5						Ø54.0						Ø54.0						
Oil balance pipe		mm	Ø6.35												Ø54.0						Ø6.35						





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

			Basic modules										2 modules combination											
HP			08	10	12	14	16	18	20	22		24	26	28	30	32	34	36	38	40	42	44		
Model Name	380~415V/3PH/50Hz	CMVT-D252W/ZR1	CMVT-D280W/ZR1	CMVT-D335W/ZR1	CMVT-D400W/ZR1	CMVT-D450W/ZR1	CMVT-D500W/ZR1	CMVT-D560W/ZR1	CMVT-D615W/ZR1			CMVT-D670W/ZR1	CMVT-D730W/ZR1	CMVT-D780W/ZR1	CMVT-D840W/ZR1	CMVT-D895W/ZR1	CMVT-D950W/ZR1	CMVT-D1010W/ZR1	CMVT-D1065W/ZR1	CMVT-D1120W/ZR1	CMVT-D1175W/ZR1	CMVT-D1230W/ZR1		
	380~415V/3PH/60Hz	CMVT-D252W/YR1	CMVT-D280W/YR1	CMVT-D335W/YR1	CMVT-D400W/YR1	CMVT-D450W/YR1	CMVT-D500W/YR1	CMVT-D560W/YR1	CMVT-D615W/YR1			CMVT-D670W/YR1	CMVT-D730W/YR1	CMVT-D780W/YR1	CMVT-D840W/YR1	CMVT-D895W/YR1	CMVT-D950W/YR1	CMVT-D1010W/YR1	CMVT-D1065W/YR1	CMVT-D1120W/YR1	CMVT-D1175W/YR1	CMVT-D1230W/YR1		
Max. Connected indoor units quantity			13	16	16	20	20	20	24	24		28	28	28	32	32	36	36	36	42	42	42		
Performance data																								
Cooling (T1/T3)	Capacity	KW	25.2/22.9	28/25.4	33.5/30.35	40/36.3	45/40.85	50/45.4	56/50.85	61.5/55.75		67/60.7	73/66.25	78/70.8	84/76.25	89.5/81.15	95.0/86.1	101.0/91.7	106.5/96.6	112.0/101.7	117.5/106.6	123.0/111.5		
		Btu/h	85000/78000	95000/86400	114000/103200	136000/123400	153000/138900	170500/154900	191000/173500	209800/190200		228000/206400	249000/225300	266000/241300	286000/259900	305000/276600	324000/293400	344000/312400	363000/329100	382000/347000	400000/363700	419000/380400		
	RT	7.1/6.5	7.9/7.21	9.5/8.62	11.3/10.3	12.7/11.6	14.2/12.9	15.9/14.5	17.5/15.9		19/17.24	20.7/18.81	22.1/20.11	23.8/21.71	25.4/23.11	27/24.52	28.7/26.1	30.2/27.5	31.8/29	33.4/30.4	34.9/31.8			
	Power input	KW	5.6/5.98	6.51/6.94	7.98/8.48	10.53/10.74	13.24/13.44	12.89/14.1	14.66/16.35	16.36/18.4		15.95/16.96	19.75/20.38	19.33/21.04	21.02/23.29	22.96/25.34	24.42/26.88	27.74/29.79	29.68/31.84	29.02/32.7	30.95/34.75	32.89/36.8		
	EER	W/W	4.5/3.83	4.3/3.66	4.2/3.58	3.8/3.38	3.4/3.04	3.88/3.22	3.82/3.11	3.76/3.03		4.20/3.57	3.70/3.25	4.03/3.37	4/3.27	3.90/3.20	3.89/3.20	3.64/3.07	3.59/3.03	3.86/3.11	3.80/3.05	3.74/3.03		
Heating	Capacity	KW	27.4	31.5	37.5	45.0	50.0	56.0	63.0	69.0		75.0	81.5	87.5	94.5	100.5	105.5	113.0	119.0	126.0	132.0	138.0		
		Btu/h	93000	107000	127000	153000	170000	191000	214000	235000		255000	278000	298000	322000	342000	363000	385000	406000	429000	450000	470000		
	Power input	kW	4.98	6.18	7.98	9.78	12.82	13.18	15.29	17.12		15.96	19.00	19.35	21.47	23.30	25.10	28.11	29.94	30.58	32.41	34.24		
	COP	W/W	5.50	5.10	4.70	4.60	3.90	4.25	4.03		4.70	4.29	4.52	4.40	4.31	4.24	4.02	3.97	4.12	4.07	4.03			
Physical data																								
Compressor	Quantity		1DC				2DC					1DC+1DC	1DC+2DC				2DC+2DC							
	Type						Hermatic scroll									Hermatic scroll								
Refrigerant	Type						R410A									R410A								
	Throttle type						EXV									EXV								
	Volume	Kg	10				12				14		16		16.5		17							
Motor	Type						DC motor									DC motor								
	Quantity						2DC					2DC+2DC	1DC+2DC				2DC+2DC							
	ESP	Pa					85									85								
Dimension (W×D×H)	Net	mm	970×765×1620				1349×765×1620				1349×765×1620								/					
	Packing	mm	1030×825×1750				1405×825×1780				1405×825×1780								/					
Net weight		Kg	208				242				286		295		312		323						/	
Sound pressure level		dB(A)	208				58				60		60		63						/			
Piping data																								
Total equivalent pipeline length < 90m	Liquid	mm	Ø9.52		Ø12.7		Ø15.88				Ø15.88		Ø19.05				Ø19.05							
	Gas	mm	Ø22.2		Ø25.4		Ø28.6				Ø31.80		Ø34.90				Ø38.10							
Total equivalent pipeline length ≥ 90m	Liquid	mm	Ø12.7		Ø15.88		Ø19.05				Ø19.05		Ø22.20				Ø22.20							
	Gas	mm	Ø25.4		Ø28.6		Ø31.8				Ø34.90		Ø38.10				Ø41.30							
Oil balance pipe		mm					/								Ø6.35									

Notes:1. Cooling operating temperature range is from -5°C to 55°C. Heating operating temperature range is from -20°C to 30°C  
2. The cooling conditions: T1 condition: indoor side 27°C(80.6°F) DB, 19°C(60°F) WB, outdoor side 35°C(95°F) DB; T3 condition: indoor side 27°C(80.6°F) DB, 19°C(60°F) WB, outdoor side 46°C(114.8°F) DB.  
3. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB outdoor side 7°C(42.8°F)DB  
4. Sound level: measured at a point 1 m in front of the unit at a height of 1.3 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.

			3 modules combination										3 modules combination		4 modules combination														
HP			46	48	50	52	54	56	58	60	62		64	66	68	70	72	74	76	78	80	82	84	86	88				
Model Name	380~415V/3PH/50Hz		CMVT-D1290W/ZR1	CMVT-D1345W/ZR1	CMVT-D1400W/ZR1	CMVT-D1455W/ZR1	CMVT-D1510W/ZR1	CMVT-D1565W/ZR1	CMVT-D1625W/ZR1	CMVT-D1680W/ZR1	CMVT-D1730W/ZR1		CMVT-D1790W/ZR1	CMVT-D1845W/ZR1	CMVT-D1905W/ZR1	CMVT-D1960W/ZR1	CMVT-D2015W/ZR1	CMVT-D2070W/ZR1	CMVT-D2125W/ZR1	CMVT-D2180W/ZR1	CMVT-D2240W/ZR1	CMVT-D2295W/ZR1	CMVT-D2345W/ZR1	CMVT-D2405W/ZR1	CMVT-D2460W/ZR1				
	380~415V/3PH/60Hz		CMVT-D1290W/YR1	CMVT-D1345W/YR1	CMVT-D1400W/YR1	CMVT-D1455W/YR1	CMVT-D1510W/YR1	CMVT-D1565W/YR1	CMVT-D1625W/YR1	CMVT-D1680W/YR1	CMVT-D1730W/YR1		CMVT-D1790W/YR1	CMVT-D1845W/YR1	CMVT-D1905W/YR1	CMVT-D1960W/YR1	CMVT-D2015W/YR1	CMVT-D2070W/YR1	CMVT-D2125W/YR1	CMVT-D2180W/YR1	CMVT-D2240W/YR1	CMVT-D2295W/YR1	CMVT-D2345W/YR1	CMVT-D2405W/YR1	CMVT-D2460W/YR1				
Max. Connected indoor units quantity			48	48	54	54	54	58	58	58	64		64	64	64	64	64	64	64	64	64	64	64	64	64				
Performance data																													
Cooling (T1/T3)	Capacity	KW	129.0/117.1	134.5/122	140.0/127.1	144.5/132	151.0/136.9	156.5/141.85	162.5/147.45	168.0/152.35	173.0/156.9		179.0/162.35	184.5/167.25	190.5/172.85	196.0/177.75	201.5/182.85	207.0187.75	212.5/192.65	218/197.6	224/203.55	229.5/208.1	234.5/212.65	240.5/218.1	246/223				
		Btu/h	440900/398800	458000/415500	477000/433400	496000/450100	515000/466800	533000/483600	554000/502600	573000/519300	590000/535300		61000/553900	629000/570600	649000/589000	668000/605700	687000/623600	706000/640300	725000/657000	743000/673800	764000/694000	783000/709500	800000/725500	820000/744100	839000/760800				
	Power input	RT	36.6/33.31	38.2/34.71	39.8/36.21	41.3/37.61	42.9/39.01	44.4/40.42	46.2/42	47.7/43.4	49.1/44.7		50.8/46.3	52.4/47.7	54.1/49.21	55.7/50.61	57.2/52.11	58.8/53.51	60.4/54.91	61.9/56.32	63.6/58	65.2/59.3	66.6/60.6	68.3/62.2	69.9/63.6				
		KW	34.25/36.73	36.19/38.78	35.53/39.64	37.46/41.69	39.40/43.74	40.86/45.28	44.19/48.19	46.12/50.24	45.7/50.9		47.40/53.15	49.33/55.2	50.70/55.13	52.63/57.18	51.97/58.04	53.91/60.09	55.84/62.14	57.31/63.68	60.63/65.94	62.57/68.64	62.15/69.3	63.84/71.55	65.78/73.6				
Heating	EER	W/W	3.77/3.19	3.72/3.15	3.94/3.21	3.88/3.17	3.83/3.13	3.83/3.13	3.68/3.06	3.64/3.03	3.78/3.08		3.78/3.05	3.74/3.03	3.76/3.14	3.72/3.11	3.88/3.15	3.84/3.12	3.81/3.10	3.80/3.1	3.69/3.09	3.67/3.03	3.77/3.07	3.77/3.05	3.74/3.03				
		KW	144.5	150.5	157.5	163.5	169.5	175.5	182.0	188.0	194.0		201.0	207.0	213.5	218.0	226.5	232.5	238.5	244.5	251.0	257.0	263.0	270.0	276.0				
	Power input	Btu/h	493000	513000	537000	557000	578000	598000	620000	641000	661000		685000	706000	728000	743000	772000	793000	813000	834000	856000	876000	897000	921000	941000				
		kW	34.29	36.12	36.76	38.59	40.42	42.22	45.23	47.06	47.42		49.53	51.36	51.41	53.24	53.88	55.71	57.54	59.34	62.35	64.19	64.54	66.66	68.49				
COP			W/W	4.21	4.17	4.24	4.16	4.16	4.02	3.99	4.09		4.06	4.03	4.15	4.09	4.20	4.14	4.12	4.03	4.00	4.07	4.05	4.03					
Physical data																													
Compressor	Quantity		1DC+2DC+2DC							2DC+2DC+2DC							1DC+2DC+2DC+2DC							2DC+2DC+2DC+2DC					
	Type		Hermatic scroll														Hermatic scroll												
Refrigerant	Type		R410A														R410A												
	Throttle type		EXV														EXV												
Motor	Volume	Kg	/														/												
	Type		DC motor														DC motor												
	Quantity		1DC+2DC+2DC							2DC+2DC+2DC							1DC+2DC+2DC+2DC							2DC+2DC+2DC+2DC					
	ESP	Pa	85																					85					
Dimension (W×D×H)	Net	mm	/														/												
	Packing	mm	/														/												
Net weight		Kg	/														/												
Sound pressure level		dB(A)	/														/												
Piping data																													
Total equivalent pipeline length < 90m	Liquid	mm	Ø19.05							Ø22.2							Ø25.4							Ø25.4					
	Gas	mm	Ø38.10							Ø44.5							Ø44.5							Ø44.5					
Total equivalent pipeline length ≥ 90m	Liquid	mm	Ø22.20							Ø25.4							Ø25.4							Ø25.4					
	Gas	mm	Ø41.30							Ø44.5							Ø54.0							Ø54.0					
Oil balance pipe		mm	Ø6.35																					Ø6.35					



CMV-X 208V-230V / 60Hz  
FULL DC INVERTER VRF SYSTEM

HP			Basic module								2 modules combination																																
Model Name			208~230V/3PH/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	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																					
Max. Connected indoor units quantity				13	16	16	20	20	20	24	24	28	28	28	32	32	36	36	42	42	42																						
Performance data																																											
Cooling	Capacity	KW	25.2	28	33.5	40.0	45.0	50.0	56.0	61.5	67.0	73.0	78.0	84.0	89.5	95.0	101.0	106.0	112.0	117.5	123.0																						
		BTU/h	85000	95000	114000	136000	153000	170500	191000	209000	228000	249000	266000	286000	305000	324000	344000	361000	382000	400000	419000																						
		RT	7.1	7.9	9.5	11.3	12.7	14.3	15.9	17.4	19.0	20.7	22.1	23.8	25.4	27.0	28.7	30.1	31.8	33.4	34.9																						
	Power input	KW	5.79	6.94	8.49	10.59	12.72	14.48	16.68	18.43	19.98	19.86	21.40	23.62	25.17	27.18	29.40	31.14	33.36	32.11	33.66																						
Heating	EER	W/W	4.34	4.03	3.94	3.77	3.54	3.45	3.35	3.99	3.98	3.71	3.64	3.56	3.56	3.50	3.44	3.40	3.36	3.66	3.65																						
		KW	27.4	31.5	37.5	45.0	50.0	56.0	63.0	69.0	75.0	81.5	87.5	94.5	100.5	106.0	113.0	119.0	126.0	132.0	138.0																						
		Capacity	BTU/h	93000	107000	127000	153000	170000	190980	214000	235000	255000	278000	298000	322000	342000	361000	385000	406000	429000	450000	470000																					
	Power input	KW	5.89	7.2	8.82	10.99	12.45	14.14	16.02	16.02	17.84	19.65	21.34	23.22	25.17	26.59	28.47	30.16	32.04	33.04	33.66																						
Physical data	COP	W/W	4.65	4.39	4.25	4.00	4.02	3.96	3.93	4.31	4.30	4.15	4.10	4.07	3.99	3.99	3.97	3.95	3.93	4.00	4.10																						
	Compressor	Quantity		1				2				1+1		1+1		1+2				2+2				1+1+2																			
Refrigerant	Type		Hermetic scroll																																								
	Type		R410A																																								
	Throttle type		EXV																																								
	Volume	Kg	10				12				16		16		15				16.5		10+12		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
Motor	Type		DC motor																																								
	Quantity		1				2				1+2		2+2		1+2				DC motor				2+2		2+2		1+2+2		2+2+2														
Dimension (W×D×H)	ESP	Pa	85																																								
	Net	mm	970×765×1620				1280×765×1620				1349×765×1620		1405×825×1780		/		85		2+2		85		/		/		/		/		/		/										
	Packing	mm	1030×825×1750				1315×825×1750				1405×825×1780		/		/		/		/		/		/		/		/		/		/												
		mm	/				/				/		/		/		/		/		/		/		/		/		/		/												
Net weight			Kg	208				242				286		305		320		/		/		/																					
Sound pressure level			dB(A)	58				60				63		/		/		/		/		/																					
Piping data																																											
Total equivalent pipeline length < 90m	Liquid	mm	Ø 9.52				Ø 12.7				Ø 15.88		Ø 15.88		Ø 19.05		Ø 19.05		Ø 19.05																								
		mm	Ø 22.2				Ø 25.4				Ø 28.6		Ø 31.8		Ø 34.9		Ø 38.1		Ø 38.1																								
Total equivalent pipeline length ≥ 90m	Liquid	mm	Ø 12.7				Ø 15.88				Ø 19.05		Ø 19.05		Ø 22.2		Ø 22.2		Ø 25.4																								
		mm	Ø 25.4				Ø 28.6				Ø 31.8		Ø 31.8		Ø 34.9		Ø 38.1		Ø 41.3																								
Oil balance pipe			mm	/																																							

Notes:  
1. Cooling operating temperature range is from -5°C to 50°C. Heating operating temperature range is from -20°C to 30°C.  
2. The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)WB outdoor side 35°C(95°F) DB  
3. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB outdoor side 7°C(42.8°F)DB  
4. Sound level: measured at a point 1 m in front of the unit at a height of 1.3 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.

HP			3 modules combination								4 modules combination												
Model Name			208~230V/3PH/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	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		
Max. Connected indoor units quantity			48	48	54	54	54	58	58	58	64	64	64	64	64	64	64	64	64	64	64		
Performance data																							
Cooling	Capacity	KW	129.0	134.0	140.0	145.5	152.0	157.0	162.0	168.0	175.2	179.0	185.0	190.0	196.0	201.5	207.0	213.0	218.0	224.0			
		Btu/h	440000	457000	477000	496000	518000	535000	552000	573000	597000	610000	631000	648000	668000	687000	706000	726000	743000	764000			
		RT	36.6	38.1	39.6	41.3	43.2	44.6	46.0	47.7	49.8	50.8	52.6	54.0	55.7	57.2	58.8	60.5	61.9	63.6			
		Power input	KW	36.34	38.08	40.30	41.85	43.95	46.08	47.82	50.04	49.17	50.34	53.02	54.76	56.98	58.53	60.54	62.76	64.50	66.72		
	EER	W/W	3.55	3.52	3.47	3.48	3.46	3.41	3.39	3.36	3.58	3.56	3.49	3.47	3.44	3.44	3.42	3.39	3.38	3.36			
Heating	Capacity	KW	144.5	150.5	157.5	163.5	169.0	176.0	182.0	189.0	195.4	201.0	207.5	213.5	220.5	224.0	232.0	239.0	245.0	252.0			
		Btu/h	493000	513000	537000	557000	576000	600000	620000	644000	668000	685000	707000	728000	752000	784000	791000	815000	835000	859000			
	Power input	KW	35.67	37.36	39.24	40.86	43.03	44.49	46.15	48.06	48.31	49.68	51.69	53.38	55.26	56.88	58.63	60.51	62.20	64.08			
COP	W/W	4.05	4.03	4.01	4.00	3.93	3.96	3.94	3.93	4.04	4.05	4.01	4.00	3.99	3.94	3.98	3.95	3.94	3.93				
Physical data																							
Compressor	Quantity		1+2+2				2+2+2				1+2+2+2		2+2+2+2		1+2+2+2				2+2+2+2				
	Type		Hermetic scroll												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	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		
	Type		DC motor																				
Motor	Quantity		1+2+2				2+2+2				1+2+2+2		2+2+2+2		1+2+2+2				2+2+2+2				
	ESP	Pa	1+2+2				85				2+2+2				85		1+2+2+2				2+2+2+2		
Dimension (W×D×H)	Net	mm	/																				
	Packing	mm	/																				
Net weight		Kg	/																				
Sound pressure level		dB(A)	/																				
Piping data																							
Total equivalent pipeline length < 90m	Liquid	mm	Ø19.05								Ø22.2								Ø25.4				
	Gas	mm	Ø38.1								Ø44.5		Ø44.5		Ø44.5				Ø54.0				
Total equivalent pipeline length ≥ 90m	Liquid	mm	Ø22.2		Ø25.4								Ø25.4		Ø25.4		Ø25.4				Ø25.4		
	Gas	mm	Ø41.3		Ø44.5								Ø44.5		Ø44.5		Ø54.0				Ø54.0		
Oil balance pipe		mm					Φ6.35				Φ6.35		Φ6.35						Φ6.35				



HP			Basic modules								2 modules combination																								
Model Name			380~415V/3PH/50Hz	CMV-V252W/ZR1-C	CMV-V280W/ZR1-C	CMV-V335W/ZR1-C	CMV-V400W/ZR1-C	CMV-V450W/ZR1-C	CMV-V500W/ZR1-C	CMV-V560W/ZR1-C	CMV-V615W/ZR1-C	CMV-V670W/ZR1-C	CMV-V730W/ZR1-C	CMV-V785W/ZR1-C	CMV-V835W/ZR1-C	CMV-V900W/ZR1-C	CMV-V950W/ZR1-C	CMV-V1000W/ZR1-C	CMV-V1065W/ZR1-C	CMV-V1115W/ZR1-C	CMV-V1175W/ZR1-C	CMV-V1230W/ZR1-C													
Max. Connected indoor units quantity			13	16	16	20	20	20	24	24		28	28	28	32	32	36	36	36	42	42	42													
Performance data																																			
Cooling	Capacity	KW	25.2	28.0	33.5	40.0	45.0	50.0	56.0	61.5		67.0	73.0	78.5	83.5	90.0	95.0	100.0	106.5	111.5	117.5	123.0													
		Btu/h	85000	95000	114000	136000	153000	170000	191000	209000		228000	249000	267000	284000	307000	324000	341000	363000	380000	400000	419000													
		RT	7.1	7.9	9.5	11.3	12.7	14.2	15.9	17.4		19.0	20.7	22.3	23.7	25.5	27.0	28.4	30.2	31.7	33.4	34.9													
	Power input	KW	5.79	6.95	8.48	11.05	13.16	14.53	17.34	19.10		16.96	20.11	21.64	23.02	26.32	27.69	29.07	32.26	33.63	36.44	38.20													
Heating	EER	WW	4.35	4.03	3.95	3.62	3.42	3.44	3.23	3.22		3.95	3.63	3.63	3.63	3.42	3.43	3.44	3.30	3.32	3.22	3.22													
		KW	27.4	31.5	37.5	45.0	50.0	56.0	63.0	69.0		75.0	81.5	87.5	93.5	100.0	106.0	112.0	119.0	125.0	132.0	138.0													
		Btu/h	93000	107000	127000	153000	170000	191000	214000	235000		255000	278000	298000	319000	341000	361000	382000	406000	426000	450000	470000													
	Power input	KW	5.88	7.21	8.80	11.03	12.56	14.14	16.15	18.02		17.61	19.77	21.37	22.94	25.13	26.70	28.28	30.58	32.16	34.17	36.03													
Physical data	COP	WW	4.66	4.37	4.26	4.08	3.98	3.96	3.90	3.83		4.26	4.12	4.10	4.08	3.98	3.97	3.96	3.89	3.89	3.86	3.83													
		Compressor	Quantity	1DC				1DC+1Fix				1DC+2Fix				1DC+1DC				2DC+1Fix				2DC+2Fix				2DC+3Fix				2DC+4Fix			
		Type					Hermatic scroll																Hermatic scroll												
	Refrigerant	Type					R410A																R410A												
Throttle type						EXV																EXV													
Motor	Volume	Kg	10				12				14				15				16.5				17												
		Type					DC motor																DC motor												
		Quantity	1DC								2DC								2DC+2DC				1DC+2DC				2DC+2DC								
	ESP	Pa					85																85												
Dimension (W×D×H)	Net	mm	970×765×1620				1260×765×1620								1349×765×1620												/								
	Packing	mm	1030×825×1750				1315×825×1750								1405×825×1780												/								
Net weight		Kg	206				242				298				295				345								/								
Sound pressure level		dB(A)	58				60				60				63												/								
Piping data																																			
Total equivalent pipeline length < 90m	Liquid	mm	Ø9.52		Ø12.7				Ø15.88				Ø15.88				Ø19.05				Ø19.05														
	Gas	mm	Ø22.2		Ø25.4				Ø28.6				Ø31.8				Ø34.9				Ø38.1														
Total equivalent pipeline length ≥ 90m	Liquid	mm	Ø12.7				Ø15.88				Ø19.05				Ø19.05				Ø22.2																
	Gas	mm	Ø25.4		Ø28.6				Ø31.8				Ø34.9				Ø38.1				Ø41.3														
Oil balance pipe		mm			Ø6.35												Ø6.35																		

Notes:

1. Cooling operating temperature range is from -5°C to 50°C. Heating operating temperature range is from -20°C to 30°C
2. The cooling conditions: indoor side 27°C(80.6°F) DB, 19°C(60°F)WB outdoor side 35°C(95°F) DB
3. The heating conditions: indoor side 20°C(68°F) DB, 15°C(44.6°F)WB outdoor side 7°C(42.8°F)DB
4. Sound level: measured at a point 1 m in front of the unit at a height of 1.3 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.

3 modules combination										3 modules combination									
HP			46	48	50	52	54	56	58	60	62	64	66						
Model Name	380~415V/3PH/50Hz		CMV-V1285W/ZR1-C	CMV-V1350W/ZR1-C	CMV-V1400W/ZR1-C	CMV-V1450W/ZR1-C	CMV-V1515W/ZR1-C	CMV-V1565W/ZR1-C	CMV-V1615W/ZR1-C	CMV-V1680W/ZR1-C	CMV-V1730W/ZR1-C	CMV-V1790W/ZR1-C	CMV-V1845W/ZR1-C						
Max. Connected indoor units quantity			48	48	54	54	54	58	58	58	64	64	64						
Performance data																			
Cooling	Capacity	KW	128.5	135.0	140.0	145.0	151.5	156.5	161.5	168.0	173.0	179.0	184.5						
		Btu/h	438000	460000	477000	494000	516000	533000	551000	573000	590000	610000	629000						
	Power input	RT	36.5	38.3	39.8	41.2	43.0	44.4	45.9	47.7	49.1	50.8	52.4						
		KW	36.17	39.47	40.74	42.23	45.42	46.79	48.17	51.36	52.7	55.54	57.30						
Heating	EER	W/W	3.55	3.42	3.44	3.43	3.34	3.34	3.35	3.27	3.28	3.22	3.22						
		KW	143.5	150.0	156.5	162.0	169.0	175.0	181.0	188.0	194.0	201.0	207.0						
	Capacity	Btu/h	489000	511000	533000	552000	576000	597000	617000	641000	661000	685000	706000						
		Power input	KW	35.51	37.69	39.38	40.85	43.14	44.72	46.30	48.59	50.17	52.19	54.05					
Physical data	COP	W/W	4.04	3.98	3.97	3.97	3.92	3.91	3.91	3.87	3.87	3.85	3.83						
	Compressor	Quantity	2DC+4Fix		3DC+3Fix			3DC+4Fix			3DC+5Fix			3DC+6Fix					
		Type			Hermatic scroll						Hermatic scroll								
Refrigerant	Type			R410A						R410A									
	Throttle type			EXV						EXV									
Motor	Volume	Kg			/						/								
		Type			DC motor						DC motor								
	Quantity				2DC+2DC+2DC+2DC						2DC+2DC+2DC+2DC								
		ESP	Pa			85						85							
Dimension (W×D×H)	Net	mm			/						/								
	Packing	mm			/						/								
Net weight		Kg			/						/								
Sound pressure level		dB(A)			/						/								
Piping data																			
Total equivalent pipeline length < 90m	Liquid	mm	Ø19.05								Ø22.2			Ø25.4					
	Gas	mm	Ø38.1								Ø44.5			Ø44.5					
Total equivalent pipeline length ≥ 90m	Liquid	mm	Ø22.2								Ø25.4			Ø25.4					
	Gas	mm	Ø41.3								Ø44.5			Ø44.5					
Oil balance pipe		mm	Ø6.35								Ø6.35			Ø6.35					



CMV-C

HP			4 modules combination					
68			70	72	74	76	78	
Model Name	380~415V/3PH/50Hz		CMV-V1900W/ZR1-C	CMV-V1950W/ZR1-C	CMV-V2000W/ZR1-C	CMV-V2065W/ZR1-C	CMV-V2130W/ZR1-C	CMV-V2180W/ZR1-C
Max. Connected indoor units quantity			64	64	64	64	64	64
Performance data								
Cooling	Capacity	KW	190.0	195.0	200.0	206.5	213.0	218.0
		Btu/h	648000	665000	682000	704000	726000	743000
	Power input	RT	54.0	55.4	56.8	58.7	60.5	61.9
		KW	55.39	56.76	58.14	61.21	64.51	65.89
Heating	EER	W/W	3.43	3.44	3.44	3.37	3.30	3.31
		KW	212.0	218.0	224.0	231.5	238.0	244.0
	Capacity	Btu/h	723000	743000	764000	788000	812000	832000
		KW	53.41	54.99	56.57	58.88	61.16	62.74
	Power input	COP	3.97	3.96	3.96	3.93	3.89	3.89
		W/W						
Physical data								
Compressor	Quantity		4DC+4Fix			4DC+5Fix		4DC+6Fix
	Type		Hermetic scroll					
Refrigerant	Type		R410A					
	Throttle type		EXV					
	Volume	Kg	/					
Motor	Type		DC motor					
	Quantity		2DC+2DC+2DC+2DC					
Dimension (WxDxH)	ESP	Pa	85					
	Net	mm	/					
	Packing	mm	/					
Net weight		Kg	/					
Sound pressure level		dB(A)	/					
Piping data								
Total equivalent pipeline length < 90m	Liquid	mm	Ø25.4			Ø25.4		
	Gas	mm	Ø44.5			Ø54.0		
Total equivalent pipeline length ≥ 90m	Liquid	mm				Ø25.4		
	Gas	mm				Ø54.0		
Oil balance pipe		mm	Ø6.35					

Notes:

1. Cooling operating temperature range is from -5°C to 50°C. Heating operating temperature range is from -20°C to 30°C

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

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

4. Sound level: measured at a point 1 m in front of the unit at a height of 1.3 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.

HP			4 modules combination					
			80	82	84	86	88	
Model Name			380~415V/3PH/50Hz	CMV-V2230W/ZR1-C	CMV-V2295W/ZR1-C	CMV-V2345W/ZR1-C	CMV-V2405W/ZR1-C	CMV-V2460W/ZR1-C
Max. Connected indoor units quantity			64	64	64	64	64	
Performance data								
Cooling	Capacity	KW	223.0	229.5	234.5	240.5	246.0	
		Btu/h	760000	783000	800000	820000	839000	
		RT	63.4	65.2	66.6	68.3	69.9	
	Power input	KW	67.27	70.46	71.83	74.64	76.40	
		EER	3.32	3.26	3.26	3.22	3.22	
Heating	Capacity	KW	250.0	257.0	263.0	270.0	276.0	
		Btu/h	852000	876000	897000	921000	941000	
		Power input	KW	64.32	66.61	68.19	70.20	72.06
	COP		3.89	3.86	3.86	3.85	3.83	
	Physical data							
Compressor	Quantity		4DC+6Fix		4DC+7Fix		4DC+8Fix	
	Type				Hermetic scroll			
Refrigerant	Type				R410A			
	Throttle type				EXV			
	Volume	Kg			/			
Motor	Type				DC motor			
	Quantity				2DC+2DC+2DC+2DC			
	ESP	Pa			85			
Dimension (W×D×H)	Net	mm			/			
	Packing	mm			/			
	Net weight	Kg			/			
Sound pressure level		dB(A)			/			
Piping data								
Total equivalent pipeline length < 90m	Liquid	mm			Ø25.4			
	Gas	mm			Ø54.0			
Total equivalent pipeline length ≥ 90m	Liquid	mm			Ø25.4			
	Gas	mm			Ø54.0			
Oil balance pipe		mm			Ø6.35			

Notes:

1. Cooling operating temperature range is from -5°C to 50°C. Heating operating temperature range is from -20°C to 30°C

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

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

4. Sound level: measured at a point 1 m in front of the unit at a height of 1.3 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.

CMV-I

HP			18	20	22	24
Model Name	380~415V/3PH/50Hz		CMV-V530W/ZR1-Bi	CMV-V560W/ZR1-Bi	CMV-V600W/ZR1-Bi	CMV-V670W/ZR1-Bi
Max.Connected indoor units quality			20	20	24	28
Performance data						
Cooling	Capacity	KW	53	56	60	67
		Btu/h	180000	190000	204000	228000
		RT	15.1	16.0	17.1	19.1
	Power input	KW	18.6	17.6	18.3	20.8
	EER	W/W	2.85	3.18	3.28	3.22
Heating	Capacity	KW	60	63	67	75
		Btu/h	204000	215000	228000	255000
	Power input	KW	17	17	17.8	19.8
	COP	W/W	3.53	3.71	3.76	3.79
Physical data						
Compressor	Quantity		3	3	3	3
	Type		Hermetic scroll			
Refrigerant	Type		R410A			
	Throttle type		EXV			
	Volume	Kg	17	17	17	17
Motor	Type		DC+AC	DC+AC	DC+AC	DC+AC
	Quantity		2	2	2	2
	ESP	Pa	85			
Dimension (WxHxD)	Net	mm	1970×1620×765	1970×1620×765	1970×1620×765	1970×1620×765
	Packing	mm	2030×1750×825	2030×1750×825	2030×1750×825	2030×1750×825
Net weight		Kg	390	390	390	390
Sound pressure level		dB(A)	≤63	≤63	≤63	≤63
Piping data						
Total equivalent pipeline length<90m	Liquid	mm	Φ15.88	Φ15.88	Φ15.88	Φ15.88
	Gas	mm	Φ31.8	Φ31.8	Φ31.8	Φ34.9
Total equivalent pipeline length>=90m	Liquid	mm	Φ19.05	Φ19.05	Φ19.05	Φ22.2
	Gas	mm	Φ31.8	Φ31.8	Φ31.8	Φ34.9

Notes:1. Cooling operating temperature range is from -5°C to 50°C. Heating operating temperature range is from -20°C to 30°C

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

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

4. Sound level: measured at a point 1 m in front of the unit at a height of 1.3 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.

HP			26	28	30	32
Model Name		380~415V/3PH/50Hz	CMV-V730W/ZR1-Bi	CMV-V800W/ZR1-Bi	CMV-V850W/ZR1-Bi	CMV-V900W/ZR1-Bi
Max.Connected indoor units quality			28	28	32	32
Performance data						
Cooling	Capacity	KW	73	80	85	90
		Btu/h	249000	272000	290000	307000
		RT	20.9	22.9	24.3	25.7
	Power input	KW	22.3	26.6	27.3	28.2
		EER	W/W	3.27	3.01	3.11
Heating	Capacity	KW	81.5	88	95	100
		Btu/h	278000	300000	324000	341000
	Power input	KW	20.6	25.4	26	26.8
		COP	W/W	3.96	3.46	3.65
Physical data						
Compressor	Quantity		4	4	4	4
	Type		Hermetic scroll			
Refrigerant	Type		R410A			
	Throttle type		EXV			
	Volume	Kg	23	23	23	23
Motor	Type		DC+AC+AC+AC	DC+AC+AC+AC	DG+AC+AC+AC	DC+AC+AC+AC
	Quantity		4	4	4	4
	ESP	Pa	85			
Dimension (WxHxD)	Net	mm	2541×1620×765	2541×1620×765	2541×1620×765	2541×1620×765
	Packing	mm	2601×1750×825	2601×1750×825	2601×1750×825	2601×1750×825
Net weight		Kg	530	530	530	530
Sound pressure level		dB(A)	≤65	≤65	≤65	≤65
Piping data						
Total equivalent pipeline length<90m	Liquid	mm	Φ19.05	Φ19.05	Φ19.05	Φ19.05
	Gas	mm	Φ34.9	Φ34.9	Φ34.9	Φ34.9
Total equivalent pipeline length>=90m	Liquid	mm	Φ22.2	Φ22.2	Φ22.2	Φ22.2
	Gas	mm	Φ34.9	Φ34.9	Φ34.9	Φ34.9

Notes:1. Cooling operating temperature range is from -5°C to 50°C. Heating operating temperature range is from -20°C to 30°C

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

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

4. Sound level: measured at a point 1 m in front of the unit at a height of 1.3 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.



# CMV-mini



## CMV-mini

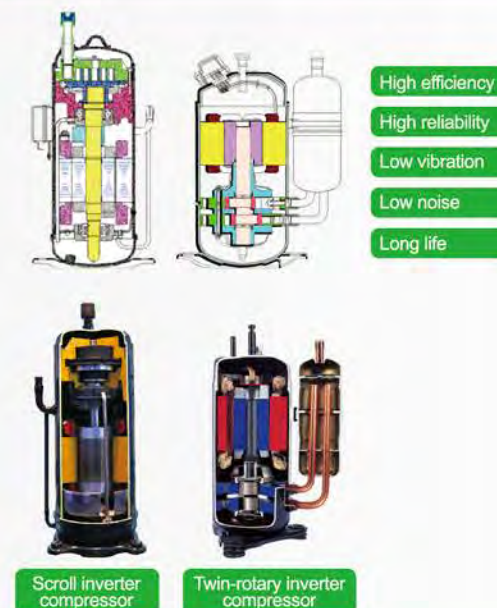
### High Efficiency DC Inverter Compressor

- Twin-rotary DC inverter compressor / Hermetic scroll inverter compressor
  - Use high efficiency and reliability compressor
  - Has very good efficiency in part load condition
- High Efficiency, Low Noise:
 

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

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

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



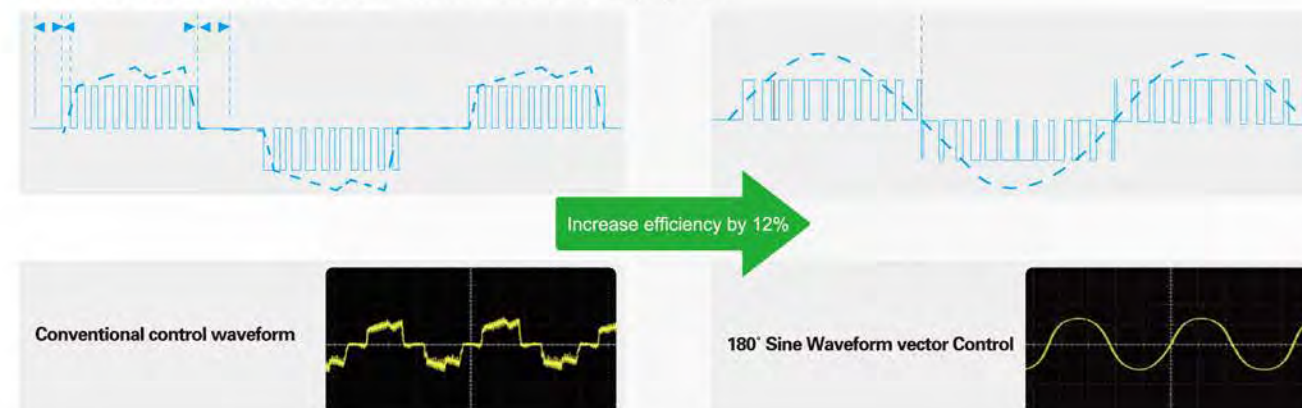
### High Efficiency DC Motor

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



### 180° Sine Wave Control

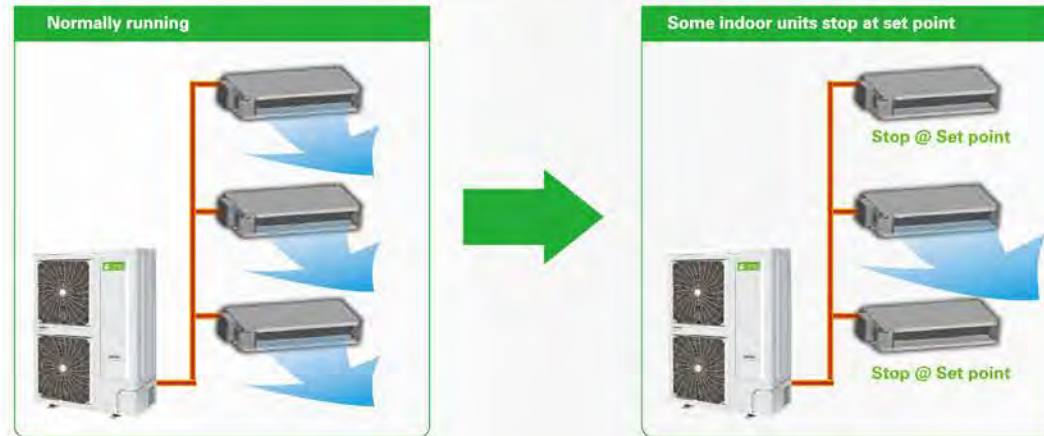
The perfect combination of 180° Sine wave rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.



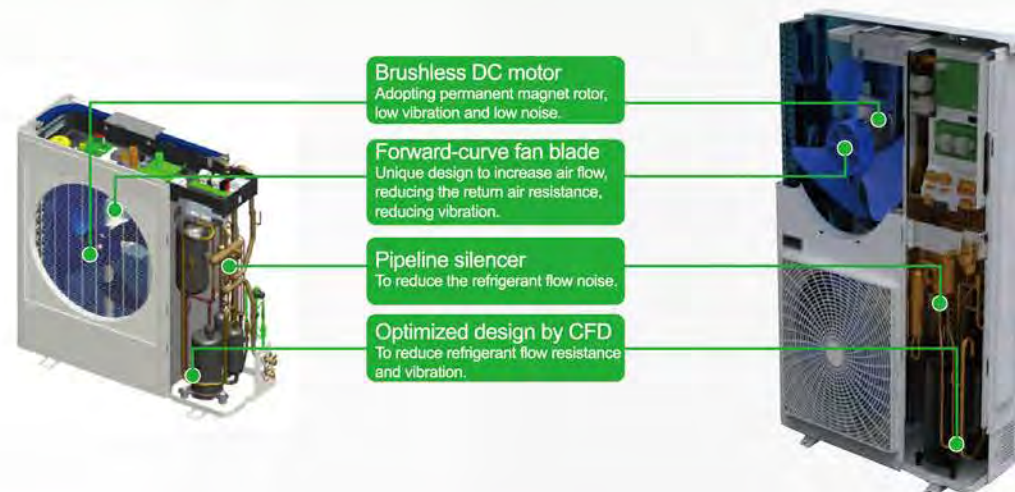


## Fast Cooling And Heating

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



## Silent Technology



## Wide Outdoor Operation Range

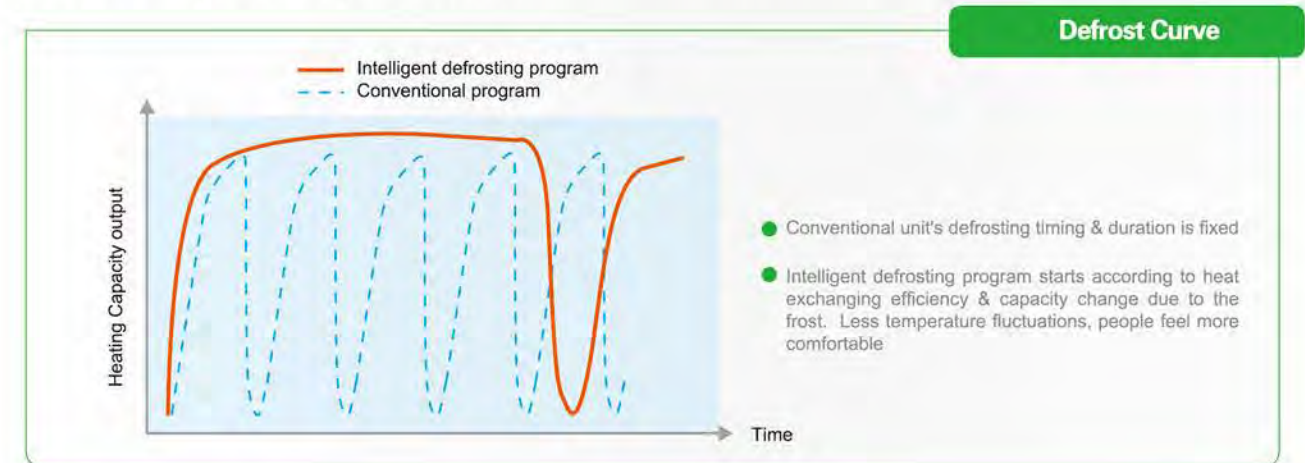
- Because global warming is getting worse, Max. cooling operating temperature is increased to 50°C.
- Heating operating temperature is down to -20°C. In the cold winter, system can heat the room continuously.



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

## Intelligent Defrosting Program

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



## 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.





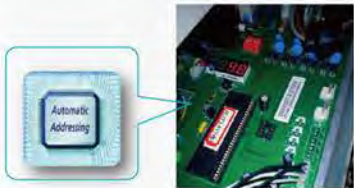
Active PFC Module

- 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.



CMV mini Specification

Model name	Power type	Cooling				Heating				Compressor		Motor		Refrigerant	Sound pressure Level dB(A)	Sound power Level dB(A)	Dimension(W×H×D)		Weight		Connecting		Max. Connected indoor units quantity				
		Capacity kW/Btu/h	Power input kW	Current A	EER	Capacity kW/Btu/h	Power input kW	Current A	COP	Type	Quantity	Type	Quantity				Packing mm	Body mm	Net kg	Gross kg	Gas mm	Liquid mm					
CMV-V080WIR1	220-240V-1ph-50Hz	8	27300	2.15	5.70	3.72	9	30700	2.28	6.04	3.95	DC/Twin-rotary	1	DC/fan motor	2	R410a	3	45-56	52-63	1145×1120×475	1054×994×399	80	92			4	
CMV-V100WIR1	220-240V-1ph-50Hz	10	34000	2.68	7.10	3.70	11.5	39000	2.90	7.69	3.93						3.1				80	92					5
CMV-V125WIR1	220-240V-1ph-50Hz	12.5	42000	3.38	8.96	3.69	14	47000	3.65	9.68	3.83						3.1				89	100					6
CMV-V125WZR1	380-415V-3ph-50Hz	12.5	42000	3.38	5.24	3.69	14	47000	3.66	5.67	3.83						3.1				93	104					6
CMV-V140WIR1	220-240V-1ph-50Hz	14	47000	3.96	10.50	3.52	16	54000	4.3	11.40	3.72						3.45				89	100	Φ15.9	Φ9.53			7
CMV-V140WZR1	380-415V-3ph-50Hz	14	47000	3.96	6.17	3.52	16	54000	4.3	6.67	3.72						3.45				93	104					7
CMV-V160WIR1	220-240V-1ph-50Hz	16	54000	4.57	12.11	3.50	18	61000	5.13	13.60	3.61						4.2				96	107					8
CMV-V160WZR1	380-415V-3ph-50Hz	16	54000	4.58	7.10	3.50	18	61000	5.13	7.95	3.61						4.2				100	111					8
CMV-V180WZR1	380-415V-3ph-50Hz	18	61000	5.19	8.05	3.47	20	63000	5.62	8.71	3.56						4.2				100	111	Φ19.1	Φ9.53			9
CMV-VH224WZR1	380-415V-3ph-50Hz	22.4	76500	6.74	10.5	3.32	25	85300	5.85	9.9	4.27	DC/Scroll					6.1	45-58	52-65					10			
CMV-VH260WZR1	380-415V-3ph-50Hz	26	88700	7.54	12.1	3.45	28.5	97300	6.77	11.1	4.21						6.1	46-60	55-66			Φ22.2	Φ9.53			12	
CMV-VH280WZR1	380-415V-3ph-50Hz	28	95500	8.32	13.6	3.37	30.5	104000	7.93	12.9	3.85						8	47-60	56-66			Φ25.4	Φ12.7			15	
CMV-VH335WZR1	380-415V-3ph-50Hz	33.5	114200	9.45	14.9	3.54	37.5	127900	9	14.2	4.17						8	48-62	57-68							18	
CMV-V080WXR1	220-240V-1ph-60Hz	8	27300	2.15	5.70	3.72	9	30700	2.28	6.04	3.95	DC/Twin-rotary	1	DC/fan motor	2	R410a	3	45-56	52-63	1145×1120×475	1054×994×399	80	92			4	
CMV-V100WXR1	220-240V-1ph-60Hz	10	34000	2.68	7.10	3.70	11.5	39000	2.90	7.69	3.93						3.1				80	92					5
CMV-V125WXR1	220-240V-1ph-60Hz	12.5	42000	3.38	8.96	3.69	14	47000	3.65	9.68	3.83						3.1				89	100					6
CMV-V125WYR1	380-415V-3ph-60Hz	12.5	42000	3.38	5.24	3.69	14	47000	3.66	5.67	3.83						3.1				93	104					6
CMV-V140WXR1	220-240V-1ph-60Hz	14	47000	3.96	10.50	3.52	16	54000	4.3	11.40	3.72						3.45				89	100	Φ15.9	Φ9.53			7
CMV-V140WYR1	380-415V-3ph-60Hz	14	47000	3.96	6.17	3.52	16	54000	4.3	6.67	3.72						3.45				93	104					7
CMV-V160WXR1	220-240V-1ph-60Hz	16	54000	4.57	12.11	3.50	18	61000	5.13	13.60	3.61						4.2				96	107					8
CMV-V160WYR1	380-415V-3ph-60Hz	16	54000	4.58	7.10	3.50	18	61000	5.13	7.95	3.61						4.2				100	111					8
CMV-V180WYR1	380-415V-3ph-60Hz	18	61000	5.19	8.05	3.47	20	63000	5.62	8.71	3.56						4.2				100	111	Φ19.1	Φ9.53			9
CMV-VH224WYR1	380-415V-3ph-60Hz	22.4	76500	6.74	10.5	3.32	25	85300	5.85	9.9	4.27	DC/Scroll					6.1	45-58	52-65					10			
CMV-VH260WYR1	380-415V-3ph-60Hz	26	88700	7.54	12.1	3.45	28.5	97300	6.77	11.1	4.21						6.1	46-60	55-66			Φ22.2	Φ9.53			12	
CMV-VH280WYR1	380-415V-3ph-60Hz	28	95500	8.32	13.6	3.37	30.5	104000	7.93	12.9	3.85						8	47-60	56-66			Φ25.4	Φ12.7			15	
CMV-VH335WYR1	380-415V-3ph-60Hz	33.5	114200	9.45	14.9	3.54	37.5	127900	9	14.2	4.17						8	48-62	57-68							18	

Notes:  
1. The cooling conditions: indoor temp.: 27°C DB (80.6°F), 19°C WB (66°F) outdoor temp.: 35°C DB (95°F) equivalent pipe length: 5m drop length: 0m.  
2. The heating conditions: indoor temp.: 20°C DB (68°F), 15°C WB (44.8°F) outdoor temp.: 7°C DB (42.8°F) equivalent pipe length: 5m drop length: 0m.  
3. Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.2 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.  
4. The above data may be changed without notice for future improvement on quality and performance.





# Indoor Units Line Up

Capacity (KW)	1-way cassette	2-way cassette	4-way cassette	ROUND-FLOW cassette	4-way cassette (compact type)	Floor standing unit	Floor standing type
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)	Concealed type	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



Controller			
Standard	Optional		
Wireless	Wireless	Wired	Centralized

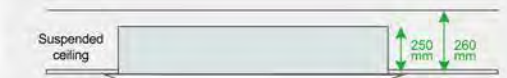
## Features

### Accessories

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

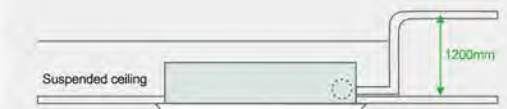
### Slim body, easy to install

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 kW	Air flow		Sound Level dB(A)	ESP Pa	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller
		Cooling kW	kBtu/h	Heating kW	kBtu/h		m³/h	CFM			Packing mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm	
CMV-V22Q1/HR1-B	50Hz	2.2	7.5	2.5	8.5	0.04	520	306	32~36	/	1160×275×655	994×250×532	1090×65×540	1070×50×520	24/3.6	30/5.0	Φ9.53	Φ6.35 OD Φ25	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		1160×315×655	994×290×532	1090×85×540	1070×50×520	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		1470×305×690	1304×290×572	1390×70×560	1380×50×520	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											

Notes:  
1. Power supply: 220~240V/1PH for 50Hz;  
2. Cooling test condition: indoor side 27°C DB, 18°C WB outdoor side 35°C DB, Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB;  
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions;  
4. The above data may be changed without notice for future improvement on quality and performance.



# 2-way Cassette



Controller				
Standard	Optional			
Wireless	Wireless	Wired	Centralized	

# 4-way Cassette / Round-flow Cassette



Controller				
Standard	Optional			
Wireless	Wireless	Wired	Centralized	

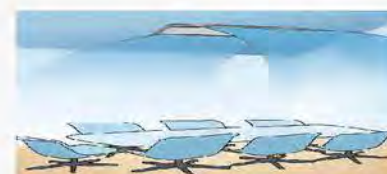
## Features

### Accessories

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

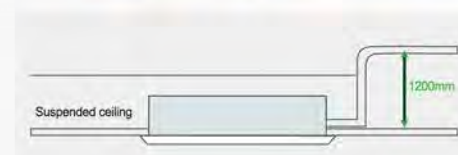
### 2 way air direction

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 (W×H×D)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	packing	Panel	Net	Gross	Gas	Liquid	Drain	
		kW	kBtu/h	kW	kBtu/h															
CMV-V45Q2/HR1-B	50Hz	4.5	15.3	5.0	17	0.07	800	470	36~42		1215×365×630	1068×310×517	1235×70×655	1205×50×630	33/6.5	36/8.5	Φ12.7	Φ6.35	OD Φ25	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															
CMV-V80Q2/HR1-B	50Hz	8.0	27.2	9.0	30.7	0.10	1120	650	40~46	/	1455×365×630	1308×310×517	1475×70×655	1445×50×630	40/7.5	47/10.0	Φ15.9	Φ9.53		

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

## Features

### Accessories

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

### 4 ways 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

Model name	Power type	Capacity				Motor input kW	Air flow		Sound Level dB(A)	ESP	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller							
		Cooling		Heating			m³/h	CFM			Packing mm	Body mm	packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm								
		kW	kBtu/h	kW	kBtu/h																						
CMV-V56Q/HR1-C	50Hz	5.6	19.1	6.3	21.4	0.054	810	470	35~39	/	920×265×985	833×232×900			24	30	Φ12.7	Φ6.35	OD Φ25 Remote controller								
CMV-V56Q/HNR1-C	60Hz																										
CMV-V71Q/HR1-C	50Hz	7.1	24.2	8.0	27.2	0.093	1200	700	36~39											24	30						
CMV-V71Q/HNR1-C	60Hz																										
CMV-V80Q/HR1-C	50Hz	8	27.2	8.8	30							1030×105×1030	950×50×950			24	30										
CMV-V80Q/HNR1-C	60Hz																										
CMV-V90Q/HR1-C	50Hz	9	30.7	10.0	34.1															28.5	35						
CMV-V90Q/HNR1-C	60Hz																			28.5	35						
CMV-V100Q/HR1-C	50Hz	10	34.1	11.0	37.5															28.5	35						
CMV-V100Q/HNR1-C	60Hz																			28.5	35						
CMV-V112Q/HR1-C	50Hz	11.2	38.2	12.5	42.6										28.5	35											
CMV-V112Q/HNR1-C	60Hz														28.5	35											
CMV-V125Q/HR1-C	50Hz	12.5	42.6	14.0	47.7	0.16	1600	940	37~41			920×310×985	833×286×900			28.5	35										
CMV-V125Q/HNR1-C	60Hz																							28.5	35		
CMV-V140Q/HR1-C	50Hz	14.0	47.7	15.0	51.1																			28.5	35		
CMV-V140Q/HNR1-C	60Hz																							28.5	35		
CMV-V160Q/HR1-C	50Hz	16.0	54.5	17.0	58																			28.5	35		
CMV-V160Q/HNR1-C	60Hz																							28.5	35		

4-way Cassette Unit (Compact type)

Model name	Power type	Capacity				Motor input kW	Air flow		Sound Level dB(A)	ESP Pa	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating			m³/h	CFM			Packing mm	Body mm	packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm	
		kW	kBtu/h	kW	kBtu/h															
CMV-V22Q4/HR1-C	50Hz	2.2	7.5	2.5	8.5	0.038	447	263	22~34	/	745×375×675	653×267×585	750×95×750	650×30×650	17.5	25	Φ9.53	Φ6.35	OD Φ25	Remote controller
CMV-V22Q4/HNR1-C	60Hz														17.5	25				
CMV-V28Q4/HR1-C	50Hz	2.8	9.5	3.2	10.9	0.038	447	263	22~34						17.5	25	Φ12.7			
CMV-V28Q4/HNR1-C	60Hz														17.5	25				
CMV-V36Q4/HR1-C	50Hz	3.6	12.2	4.0	13.6	0.040	515	303	27~38						17.5	25				
CMV-V36Q4/HNR1-C	60Hz														17.5	25				
CMV-V45Q4/HR1-C	50Hz	4.5	15.3	5.0	17	0.040	515	303	27~38						17.5	25				
CMV-V45Q4/HNR1-C	60Hz														17.5	25				

Round-flow Cassette

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating							Packing	Body	packing	Panel	Net	Gross	Gas	Liquid	Drain	
		kW	kBTU/h	kW	kBTU/h		kW	m³/h												
CMV-V56QR/HR1	50Hz	5.6	19.1	6.3	21.4	0.09	860	500	32~39	/	920×265×985	833×232×900			24	30	Ø12.7	Ø6.5		Remote controller
CMV-V71QR/HR1	50Hz	7.1	24.2	8.0	27.2	0.18	1200	700	35~39						24	30				
CMV-V80QR/HR1	50Hz	8.0	27.2	8.8	30										24	30				
CMV-V90QR/HR1	50Hz	9.0	30.7	10	34.1										28.5	35				
CMV-V100QR/HR1	50Hz	10	34.1	11	37.5						28.5	35								
CMV-V112QR/HR1	50Hz	11.2	38.2	12.5	42.6	0.27	1400	820	37~41		920×310×985	833×286×900			28.5	35	Ø15.9	Ø9.52	Ø25	
CMV-V125QR/HR1	50Hz	12.5	42.6	14	47.7										28.5	35				
CMV-V140QR/HR1	50Hz	14	47.7	15	51.1										28.5	35				
CMV-V160QR/HR1	50Hz	16	54.5	17	58										28.5	35				

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

Floor standing unit



Controller				
Standard	Optional			
Wireless	Wireless	Wired		Centralized

Features

Accessories

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

Anti-dust design

When unit is off, the louvers will close automatically .



3 dimensional air supply

Two step motor are built in, the air can be easily delivered to every corner .

Specification

Floor Standing Unit

Model name	Power type	Capacity				Motor input kW	Air flow m³/h	Sound Level dB(A)	ESP Pa	Dimension (W×H×D)		Weight		Connecting pipe			Standard controller
		Cooling		Heating						Body mm	packing mm	Body kg	packing kg	Gas mm	Liquid mm	Drain mm	
		kW	kBtu/h	kW	kBtu/h												
CMV-V45F/HR1	50Hz	4.5	15.3	5	17.0	0.1	920	48	/	528×1760×271	645×1940×380	38.5	49.5	Φ12.7	Φ6.35	Φ20	Remote controller
CMV-V56F/HR1	50Hz	5.6	19	6.3	21.4		950	53				39.5	50.5	Φ15.9	Φ9.53	Φ25	
CMV-V71F/HR1	50Hz	7.1	24	8	27.2												
CMV-V80F/HR1	50Hz	8	27.2	9	30.6												
CMV-V90F/HR1	50Hz	9	30.7	10	34.0												
CMV-V100F/HR1	50Hz	10	34.1	11	37.4	0.2	1620	53	613×1929×379	745×2080×510	56	72.5	Φ15.9	Φ9.53	Φ25		
CMV-V112F/HR1	50Hz	11.2	38	12.4	42.2												
CMV-V125F/HR1	50Hz	12.5	42.5	13.9	47.3												
CMV-V140F/HR1	50Hz	14	47.6	15.5	52.7												
CMV-V160F/HR1	50Hz	16	54.4	17.8	60.5												



# Floor standing unit



## Features

### Accessories

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

### Tow type for option



Floor standing type  
(Installed on the floor)



Concealed type  
(concealed in perimeter wall)

- Excellent solution for installing beneath the window and provide comfortable environment.
- Convenient maintenance and efficiently eliminate noise because of special installation.

## Specification

### Floor Standing Type

Model name	Power type	Capacity				Motor input W	Air flow (H/M/L) m³/h	Sound Level dB(A)	ESP Pa	Dimension (W×H×D)		Weight		Connecting pipe			Standard controller
		Cooling kW	kBTU/h	Heating kW	kBTU/h					Body mm	packing mm	Net kg	Gross kg	Liquid mm	Gas mm	Drain mm	
CMV-V22TE/HR1	50Hz	2.2	7.5	2.4	8.2	51	505/465/393	36/34/30	/	970×491×230	1070×570×300	23	26	Φ9.52	Φ20	Wired controller	
CMV-V28TE/HR1	50Hz	2.8	9.6	3.2	10.9	51	505/465/393	36/34/30		970×491×230	1070×570×300	23	26				
CMV-V36TE/HR1	50Hz	3.6	12.3	4.0	13.6	62	683/482/314	38/32/27		1170×491×230	1270×570×300	27	30				
CMV-V45TE/HR1	50Hz	4.5	15.4	5.0	17.1	71	851/640/428	43/38/27		1170×491×230	1270×570×300	27	30	Φ9.52	Φ20		
CMV-V56TE/HR1	50Hz	5.6	19.1	6.3	21.5	94	1020/891/795	38/37/31		1720×491×230	1820×570×320	38	42				
CMV-V71TE/HR1	50Hz	7.1	24.2	8.0	27.3	124	1018/882/793	40/36/33		1720×491×230	1820×570×320	38	42	Φ9.53	Φ15.88		
CMV-V80TE/HR1	50Hz	8.0	27.2	9.0	30.7	124	1018/882/793	40/36/33		1720×491×230	1820×570×320	38	42				

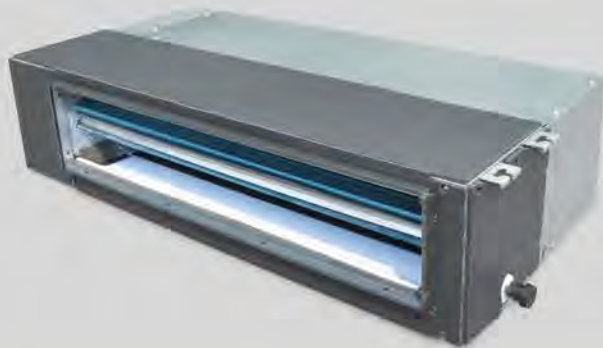
### Concealed Type

Model name	Power type	Capacity				Motor input W	Air flow (H/M/L) m³/h	Sound Level dB(A)	ESP Pa	Dimension (W×H×D)		Weight		Connecting pipe			Standard controller	
		Cooling kW	Cooling kBTU/h	Heating kW	Heating kBTU/h					Body mm	packing mm	Net kg	Gross kg	Liquid mm	Gas mm	Drain mm		
CMV-V22TC/HR1	50Hz	2.2	7.5	2.4	8.2	35	415/359/259	36/33/30	/	730×600×230	835×705×325	20	23	Φ6.35	Φ9.52	Φ20	Wired controller	
CMV-V28TC/HR1	50Hz	2.8	9.6	3.2	10.9	35	415/359/259	36/33/30		730×600×230	835×705×325	20	23					
CMV-V36TC/HR1	50Hz	3.6	12.3	4.0	13.6	48	664/580/520	37/34/31		980×600×230	1085×705×325	24	28					
CMV-V45TC/HR1	50Hz	4.5	15.4	5.0	17.1	48	664/580/520	37/34/31		980×600×230	1085×705×325	24	28	Φ9.52				
CMV-V56TC/HR1	50Hz	5.6	19.1	6.3	21.5	66	972/850/753	37/34/31		1330×600×230	1435×705×325	31	36					
CMV-V71TC/HR1	50Hz	7.1	24.2	8.0	27.3	67	1005/868/769	38/35/33		1330×600×230	1435×705×325	32	37	Φ9.53	Φ15.88			
CMV-V80TC/HR1	50Hz	8.0	27.2	9.0	30.7	67	1005/868/769	38/35/33		1330×600×230	1435×705×325	32	37					

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



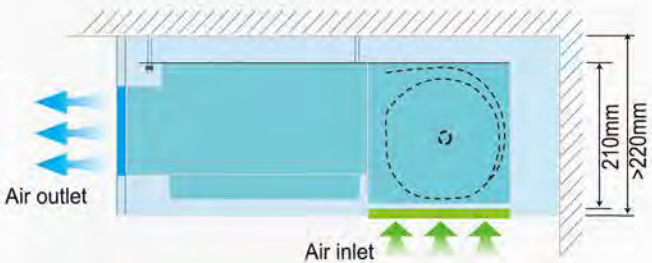
# Short Ceiling Concealed Ducted Unit



Controller			
Standard	Optional		
Wired	Wired	Wireless	Centralized

## • Slim body, easy to install

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



## Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller
		Cooling		Heating			Packing	Body			Packing	Panel	Net	Gross	Gas	Liquid	Drain			
		kW	kBtu/h	kW	kBtu/h	kW			m³/h	CFM								dB(A)	Pa	
CMV-V22TA/HR1-C	50Hz	2.2	7.5	2.5	8.5	0.05	450	260	24~29	30	910×240×510	814×210×467			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				
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	Φ12.7							
CMV-V45TA/HNR1-C	60Hz																			
CMV-V56TA/HR1-C	50Hz	5.6	19.1	6.3	21.4	0.09	800	520	28~38		1110×240×510	1010×210×467	21	24						
CMV-V56TA/HNR1-C	60Hz																			
CMV-V71TA/HR1-C	50Hz	7.1	24.2	8	27.2	0.11	1000	640	30~39		1310×240×510	1214×210×467	25.5	28.5	Φ15.9	Φ9.53				
CMV-V71TA/HNR1-C	60Hz																			

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

## 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.

### • DC fan motor is optional

### • 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.

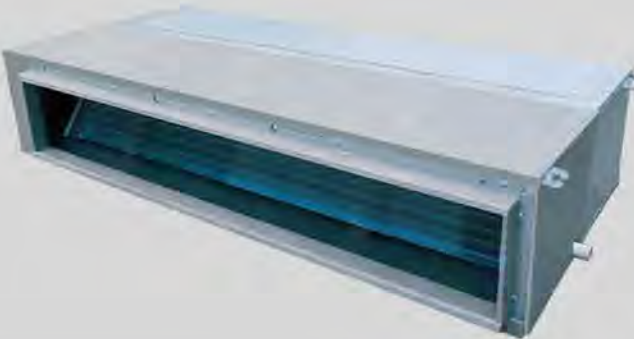


• Air inlet of fan wheel casing is arch curved design; it can reduce air flow's disturbance, make it flow smoother to reduce noise.





# Medium Static Pressure Ducted Unit



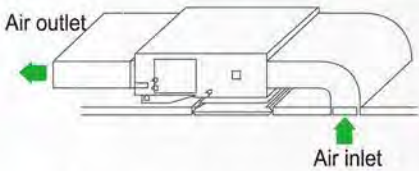
Controller			
Standard	Optional		
Wired	Wired	Wireless	Centralized

## Features

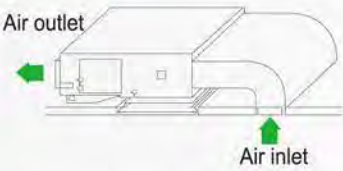
### Accessories

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.



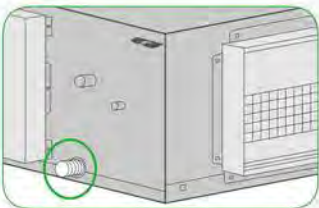
70Pa ESP, suitable for long distance air supply



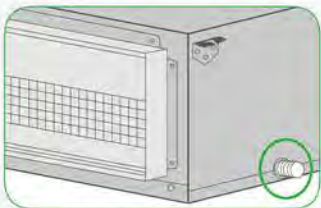
30Pa (can be set on site), suitable for low noise requirement rooms

### Convenient in drainage pipe installation

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



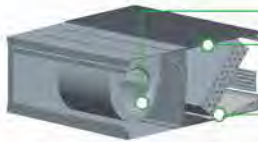
Left drainage hole



Right drainage hole

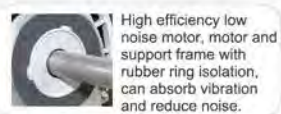
### Whole unit low noise design, silent operation

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.

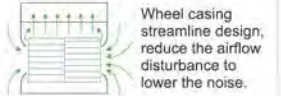


Aviation fan wheel, designed by the industry's top design software.

High quality insulation materials, effectively reducing noise diffusion



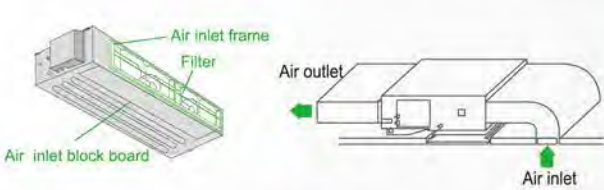
High efficiency low noise motor, motor and support frame with rubber ring isolation, can absorb vibration and reduce noise.



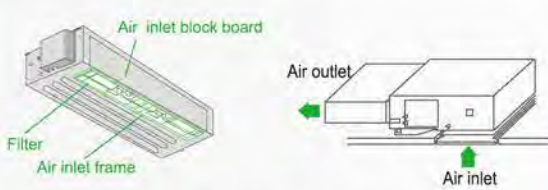
Wheel casing streamline design, reduce the airflow disturbance to lower the noise.

### Two air return installation methods

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



Air inlet from rear



Air inlet from bottom

### DC fan motor is optional

## Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller			
		Cooling		Heating			m³/h	CFM			Pa	Packing	Body	packing	Panel	Net	Gross	Gas	Liquid		Drain		
		kW	kBtu/h	kW	kBtu/h	kW			mm	mm												mm	mm
CMV-V71TB/HNR1-B	50Hz	7.1	24.2	8.0	27.2	0.30	1220	710	36~41	70	1255x325x720	1209×260×680			33	37	Φ15.9	Φ9.53	OD Φ25	Wired controller			
CMV-V71TB/HNR1-B	60Hz														33	37							
CMV-V80TB/HNR1-B	50Hz	8.0	27.2	9.0	30.7											33					37		
CMV-V80TB/HNR1-B	60Hz															46					50		
CMV-V90TB/HNR1-B	50Hz	9.0	30.7	10.0	34.1	0.34	1850	1080	38~43							46					50		
CMV-V90TB/HNR1-B	60Hz																						46
CMV-V100TB/HNR1-B	50Hz	10.0	34.1	11.0	37.5						1490x325x720	1445×260×680				46					50		
CMV-V100TB/HNR1-B	60Hz																						
CMV-V120TB/HNR1-B	50Hz	12.0	40.9	13.0	44.3		2000	1170	40~44							46					50		
CMV-V120TB/HNR1-B	60Hz																					46	50
CMV-V150TB/HNR1-B	50Hz	15.0	51.1	17.0	58																	46	50
CMV-V150TB/HNR1-B	60Hz																						

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



# High Static Pressure Ducted Unit



Controller			
Standard	Optional		
Wired	Wired	Wireless	Centralized

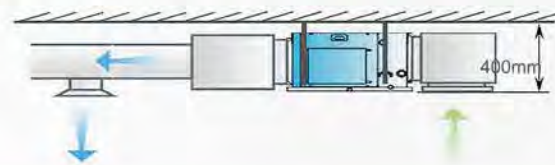
## Features

### 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

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



Round diffuser



Spiral diffuser



Square diffuser



Linear diffuser

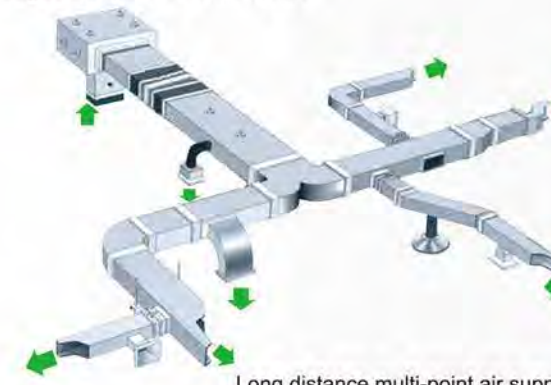


Rectangular diffuser

### 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



Oblong shape room



Large room

L shape room

## Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller													
		Cooling		Heating			Packing	Body			Packing	Panel	Net	Gross	Gas	Liquid	Drain																
		kW	kBtu/h	kW	kBtu/h																												
CMV-V71TH-HR1-B	50Hz					0.34	1500	880	40~42	150	1490×325×720	1445×260×680			46	50	Φ15.9	Φ9.53			Wired controller												
CMV-V71TH-HNR1-B	60Hz	7.1	24.2	7.8	26.6										46	50																	
CMV-V80TH-HR1-B	50Hz														0.45	2300						1350	44~52	150	1245×445×655	1190×370×620	/	/	46	50			OD Φ25
CMV-V80TH-HNR1-B	60Hz	8.0	27.2	8.8	30																								46	50			
CMV-V90TH-HR1-B	50Hz					0.45	2300	1350	44~52	150	1245×445×655	1190×370×620	/	/			46	50															
CMV-V90TH-HNR1-B	60Hz	9.0	30.7	10.0	34.1												46	50															
CMV-V100TH-HNR1-B	50Hz														0.45	2300	1350	44~52				150	1245×445×655	1190×370×620	/	/	47	51					
CMV-V100TH-HNR1-B	60Hz	10.0	34.1	11.0	37.5																						47	51					
CMV-V120TH-HR1-B	50Hz					0.45	2300	1350	44~52	150	1245×445×655	1190×370×620	/	/					47	51													
CMV-V120TH-HNR1-B	60Hz	12.0	40.9	13.0	44.3														47	51													
CMV-V150TH-HR1-B	50Hz														0.45	2300	1350	44~52	150	1245×445×655		1190×370×620	/	/	47	51							
CMV-V150TH-HNR1-B	60Hz	15.0	51.1	17.0	58.0																				47	51							
CMV-V200TH-HR1-B	50Hz					1.2	4000	2350	45~53	200	1510×580×870	1465×448×811									102				113								
CMV-V200TH-HNR1-B	60Hz	20.0	68.2	22.0	75.0																102				113								
CMV-V250TH-HR1-B	50Hz														1.2	4200	2470	45~54	200	1510×580×870	1465×448×811			102	113								
CMV-V250TH-HNR1-B	60Hz	25.0	85.3	27.5	93.8																			102	113								
CMV-V280TH-HR1-B	50Hz					1.2	4400	2580	45~55	200	1510×580×870	1465×448×811												102	113								
CMV-V280TH-HNR1-B	60Hz	28.0	95.5	30.8	105.0																			102	113								
CMV-V450TH-HZR1-B	50Hz														1.6	6000	3520	60	200	2267×840×1050	2165×676×916			222	260								
CMV-V450TH-HNR1-B	60Hz	45.0	153.5	50.0	170.6																			222	260								
CMV-V560TH-HZR1-B	50Hz					2.5	8000	4700	64	200	2267×840×1050	2165×676×916												222	260								
CMV-V560TH-HNR1-B	60Hz	56.0	191.0	63.0	214.9																			222	260								

Notes: 1. 45kW & 56kW units' power supply are 380~415V/3PH for 50Hz and 208~230V/3PH for 60Hz, the others' power supply is 220~240V/1PH for 50Hz and 208~230V/1PH for 60Hz.  
2. Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB.  
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.  
4. The above data may be changed without notice for future improvement on quality and performance.



# Wall Mounted Unit



## Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller		
		Cooling		Heating							Packing	Body	packing	Panel	Net	Gross	Gas	Liquid	Drain			
		kW	kBtu/h	kW	kBtu/h																kW	m³/h
CMV-V22GHR1-B2	50Hz	2.2	7.5	2.5	8.5	0.033	540	320	24~33	/	983×377×300	900×296×216	/	/	12	14	Φ9.53	OD Φ20	Remote controller			
CMV-V22GHR1-B2	60Hz																					
CMV-V28GHR1-B2	50Hz	2.8	9.5	3.2	10.9	0.033	540	320	24~33		983×377×300	900×296×216			12	14						
CMV-V28GHR1-B2	60Hz																					
CMV-V36GHR1-B2	50Hz	3.6	12.2	4.0	13.6	0.041	600	360	24~33		983×377×300	900×296×216			12	14	Φ6.35					
CMV-V36GHR1-B2	60Hz																					
CMV-V45GHR1-B2	50Hz	4.5	15.3	5.0	17	0.041	600	360	33~40		983×377×300	900×296×216			12	14				Φ12.7		
CMV-V45GHR1-B2	60Hz																					
CMV-V56GHR1-B2	50Hz	5.6	19.1	6.2	21.1	0.052	920	540	35~43		1145×392×318	1080×304×221			16	18						
CMV-V56GHR1-B2	60Hz																					
CMV-V71GHR1-B2	50Hz	7.1	24.2	7.8	26.6	0.052	920	540	35~43		1145×392×318	1080×304×221			16	18	Φ15.9			Φ9.53		
CMV-V71GHR1-B2	60Hz																					

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

## 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.

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

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

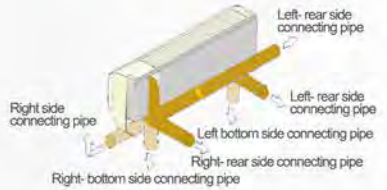


### Flexible in installation

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.



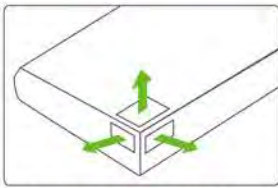


# Floor Ceiling Unit

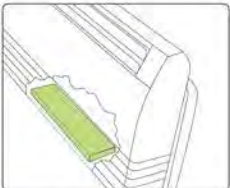


Controller			
Standard	Optional		
Wireless	Wireless	Wired	Centralized

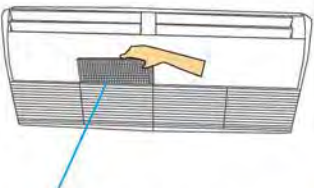
## Easy for installation



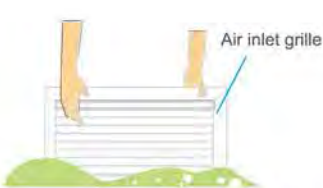
Refrigerant pipe can be connected from 3 directions.



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

## Specification

Model name	Power type	Capacity				Motor input kW	Air flow		Sound Level dB(A)	ESP Pa	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller	
		Cooling kW kBTU/h		Heating kW kBTU/h			m³/h	CFM			Packing mm	Body mm	packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm		
CMV-V4SLD/HR1-B	50Hz	4.5	15.3	5.0	17	0.06			950	550										37~46	/
CMV-V4SLD/HNR1-B	60Hz																				
CMV-V56LD/HR1-B	50Hz	5.6	19.1	6.3	21.4		37~46	36			42										
CMV-V56LD/HNR1-B	60Hz																				
CMV-V71LD/HR1-B	50Hz	7.1	24.2	8.0	27.2	0.15	1300	760	39~48	36	42										
CMV-V71LD/HNR1-B	60Hz																				
CMV-V80LD/HR1-B	50Hz	8.0	27.2	8.8	30				39~48	36	42										
CMV-V80LD/HNR1-B	60Hz																				
CMV-V90LD/HR1-B	50Hz	9.0	30.7	10.0	34.1	0.375	1500	880	44~50	38	44	Φ15.9	Φ9.53	OD Φ25							
CMV-V90LD/HNR1-B	60Hz																				
CMV-V112LD/HR1-B	50Hz	11.2	38.2	12.5	42.6	0.26	2300	1350	45~52	1750×770×330	1670×680×240							51	58		
CMV-V112LD/HNR1-B	60Hz																				
CMV-V140LD/HR1-B	50Hz	14.0	47.7	15	51.1				45~52									51	58		
CMV-V140LD/HNR1-B	60Hz																				
CMV-V160LD/HR1-B	50Hz	16.0	54.5	17	58	0.26	2300	1350	45~52									51	58		
CMV-V160LD/HNR1-B	60Hz																				

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



## 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

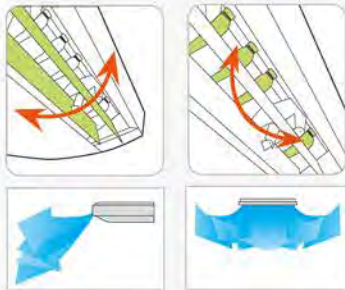
- The use of ark effect: need to take up valuable floor position.
- The use of a hanging type indoor machine effect: Due to the adoption of a suspended installation, without occupying the ground position, will be valuable floor space to save up to add a set of dining table.



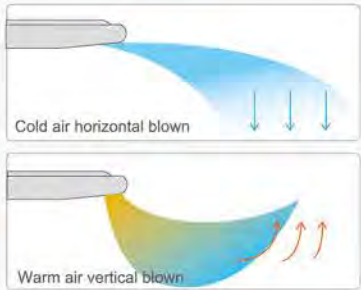
### Wide angle air supply



- 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.



# Fresh Air Processor



Controller			
Standard	Optional		
Wired	Wired	Wireless	Centralized

## 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.

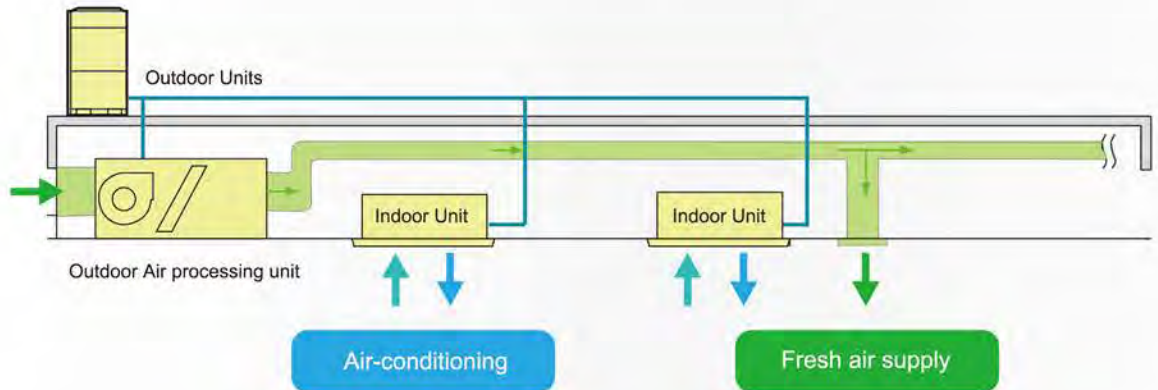
### High external static pressure

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.

### 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 not bigger than 30% of total indoor units capacity.

## Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension (W×H×D)				Body Weight		Connecting pipe			Standard controller		
		Cooling		Heating			m³/h	CFM			dB(A)	Pa	Packing mm	Body mm	packing mm	Panel mm	Net kg	Gross kg	Gas mm		Liquid mm	Drain mm
		kW	kBtu/h	kW	kBtu/h																	
CMV-V140TF/HR1-B	50Hz	14.0	47.7	9.0	30.7	0.45	1400	820	42-48	220	1245×445×655	1190×370×620			47	51	Φ15.9	Φ9.53	OD Φ25  Wired controller			
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	1510×580×870	1465×448×811			100	111						
CMV-V224TF/HNR1-B	60Hz																Φ22.2	Φ12.7				
CMV-V280TF/HR1-B	50Hz	28.0	95.5	20.0	68.2	1.2	2800	1640	45-52	220	1510×580×870	1465×448×811	/	/	100	111						
CMV-V280TF/HNR1-B	60Hz																					
CMV-V450TF/HZR1-B	50Hz	45.0	153.5	31.4	107.1	1.6	4000	3520	58	300	2267×840×1050	2165×676×916			222	260			OD Φ32			
CMV-V450TF/HXR1-B	60Hz																Φ28.6	Φ15.9				
CMV-V560TF/HZR1-B	50Hz	56.0	191.0	39.0	133.0	2.5	6000	4700	62	300	2267×840×1050	2165×676×916			222	260						
CMV-V560TF/HXR1-B	60Hz																					

Notes: 1. 45kW & 56kW units' power supply are 380~415V/3PH for 50Hz and 208~230V/3PH for 60Hz, the others' power supply is 220~240V/1PH for 50Hz and 208~230V/1PH for 60Hz  
2. Cooling test condition: Indoor and outdoor side 33°C DB, 28°C WB. Heating test condition: Indoor and outdoor side 0°C DB, -2.9°C WB  
3. 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.  
4. The above data may be changed without notice for future improvement on quality and performance.





# Heat Recovery Ventilator



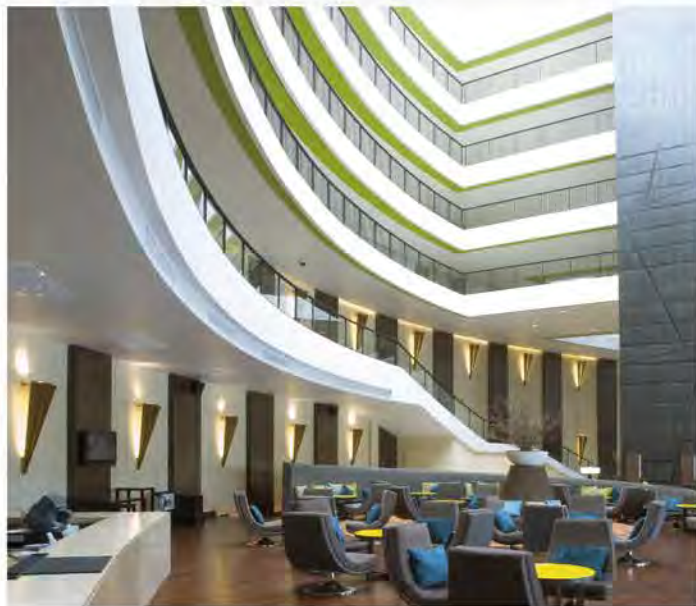
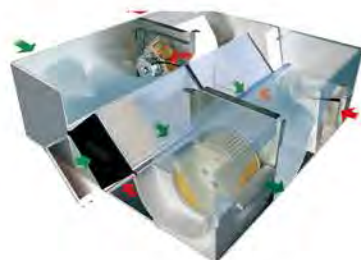
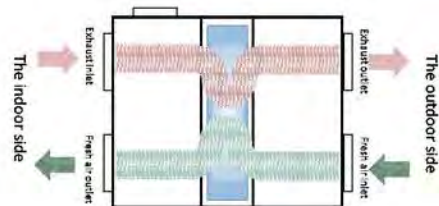
## Features

### How it works

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

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

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



## Specification

### Suspended type specification

Model	Air flow	ESP	Power input	Power supply	Temperature exchanging efficiency (%)		Enthalpy exchanging efficiency (%)		Noise dB(A)	Body dimension (WxDxH) mm	Weight kg
	m³/h	Pa	W		Cooling	Heating	Cooling	Heating			
QR-X02D	200	75	65	220V/1PH/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	380V/3PH/50Hz	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		60.0	65.0	50.0	55.0	51	1600x1200x540	200
QR-X20DS	2000	170	1200		60.0	65.0	50.0	55.0	53	1650x1400x540	225
QR-X25DS	2500	180	2000		60.0	65.0	50.0	55.0	55	1430x1610x600	240
QR-X30DS	3000	200	2100		60.0	65.0	50.0	55.0	57	1600x1700x640	270
QR-X40DS	4000	220	2400		60.0	65.0	50.0	55.0	60	1330x1725x1050	265
QR-X50DS	5000	240	3000		60.0	65.0	50.0	55.0	61	1660x1820x1050	280
QR-X60WS	6000	290	3600		60.0	65.0	50.0	55.0	70	1660x1820x1050	310
QR-X70WS	7000	310	4200		60.0	65.0	50.0	55.0	73	2060x1660x1168	360
QR-X80WS	8000	320	6000		60.0	65.0	50.0	55.0	74	2060x1660x1168	382
QR-X90WS	9000	340	7500		60.0	65.0	50.0	55.0	77	2310x1900x1200	500
QR-X100WS	10000	400	8000		60.0	65.0	50.0	55.0	78	2310x1900x1200	534

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





# CONTROLLERS AND SOFTWARE

## Wireless Remote Controllers

### Wireless remote controllers

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



## Wired Controllers

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



## Touch Screen Wired Controller

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



## Simple Centralized Controller

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



Indoor unit operation state  
Indoor unit control order



## CMV-SMART (Smart centralized control App)

- Available on iOS and Android
- Single unit controller or group control
- Weekly schedule management
- 64 indoor unit can be controlled
- Operation parameter enquiry
- Remote control via cloud server





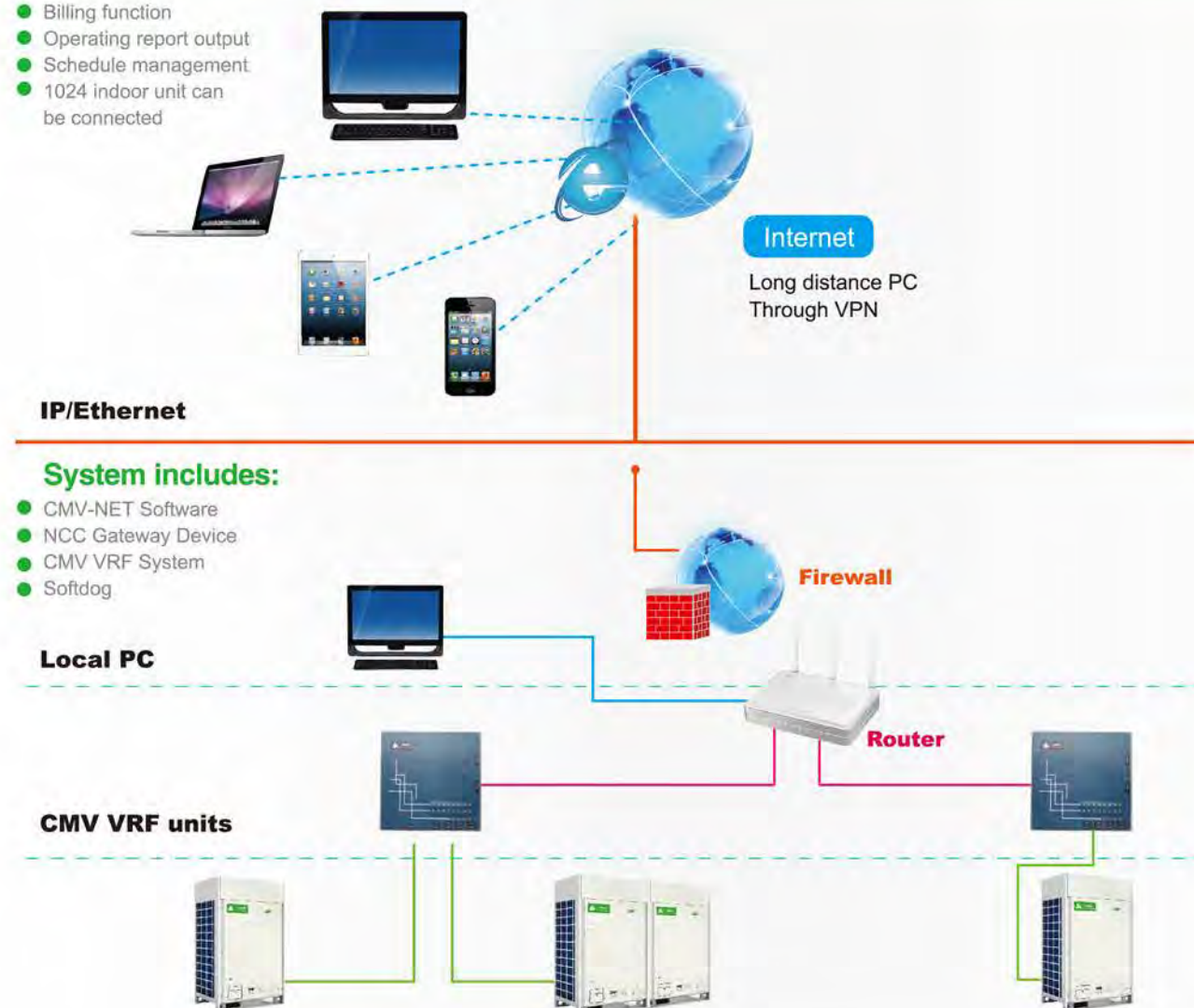
## Touch screen centralized controller

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



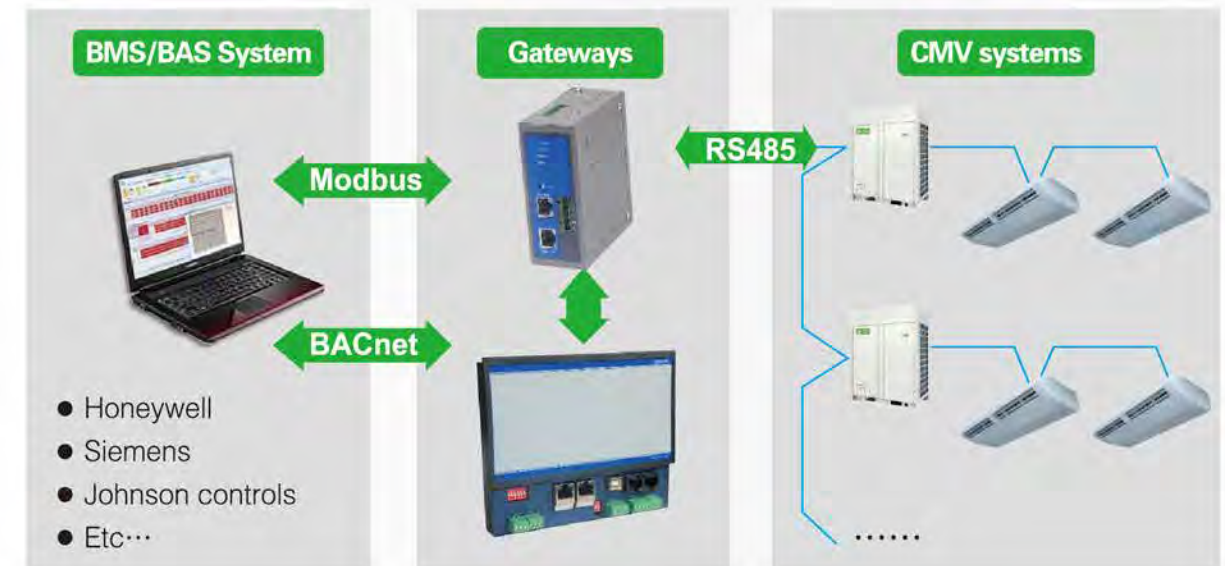
## CMV-NET Control Software

- Billing function
- Operating report output
- Schedule management
- 1024 indoor unit can be connected



## BMS Gateway

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



## Doctor Kit Pro

- Operating status, error codes inquiry.
- Compressors, sensors, valves operating parameter. real-time monitored and display.
- Commissioning results can be reported.
- Built-in with troubleshooting instruction.





## 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.



CMV outdoor unit



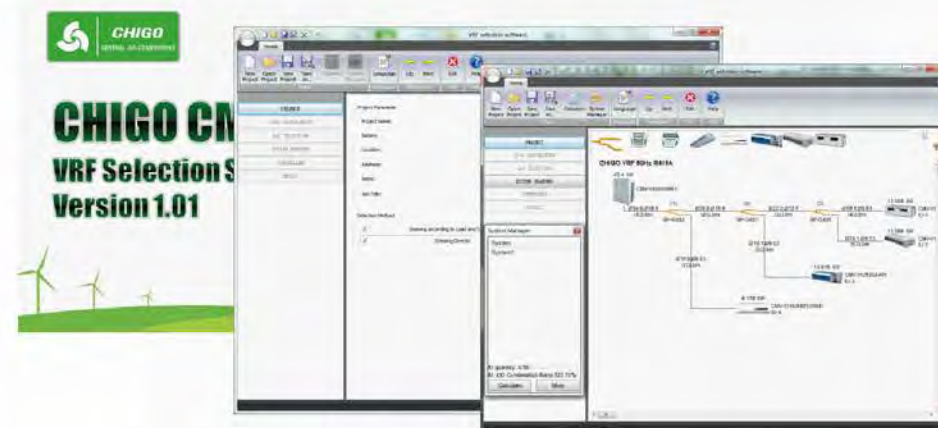
AHU kit



- DX type AHU
- Other supplier's indoor units



## VRF Selection Software Pro



# PROJECTS



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



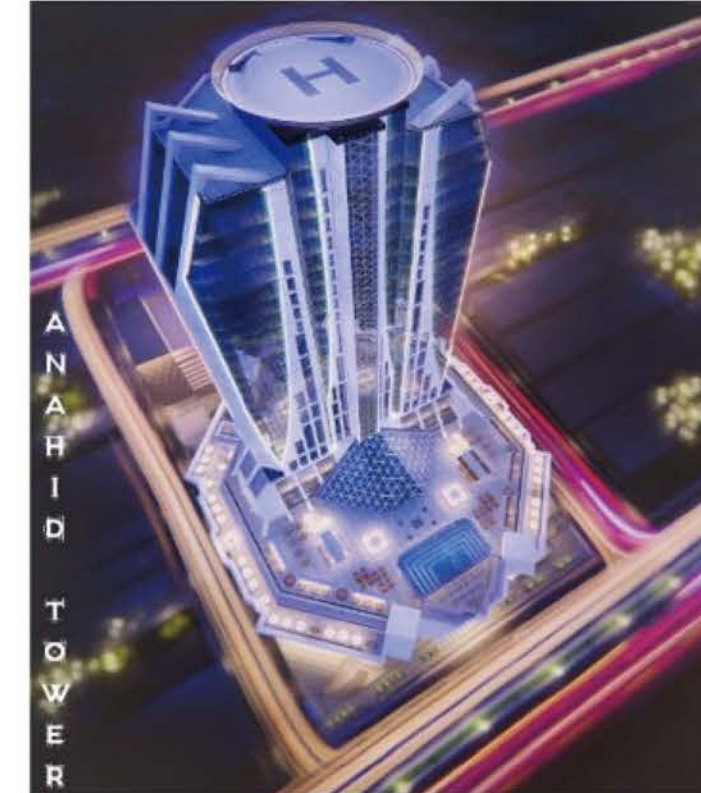
Nizhny Novgorod Stadium, Important venue of the 2018 Russian World Cup, total VRF capacity 1600KW.



# PROJECTS



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



Tehran, Iran Cooling capacity 2000KW; with CMV-DC inverter VRF system.



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



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