Carrier

XPOWER
FULL DC INVERTER

VRF

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CARE
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COMMITMENT

Carrier

February 2023

Products Lineup

VX Series

Capacity Range	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34
	KW	25.2	28.0	33.5	40.0	45.0	50.0	56.0	61.5	67	73	78.5	85	90	95
	Btu/h	86,000	95,500	114,300	136,500	153,500	170,600	191,100	209,800	228,600	249,100	267,800	290,000	307,100	324,100
Appearance															

VXi Series

Capacity Range	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34
	KW	25.2	28.0	33.5	40.0	45.0	50.0	56.0	61.5	67	73	78.5	85	90	95
	Btu/h	86,000	95,500	114,300	136,500	153,500	170,600	191,100	209,800	228,600	249,100	267,800	290,000	307,100	324,100
Appearance															

VC Pro Series

Capacity Range	HP	8	10	12	14	16	18	20	22	24	26	28	30	32
	kW	22.4	28.0	33.5	40.0	45.0	50.0	56.0	61.5	67.0	73.0	78.5	85.0	90
	kBtu/h	76.5	95.6	114.4	136.6	153.7	170.8	191.3	210.0	228.8	249.3	268.1	290.3	307.4
Appearance														

Side Discharge Series

| Capacity Range	HP	4	5	6	7	8	10	12
	KW	12	14	16	20	22.4	26	33.5
	Btu/h	40,950	47,770	54,600	68,240	76,430	88,700	105,190
Appearance								

CONTENTS

VX Series
Heat Pump VRF

3 Unique Innovations

Energy Management System (EMS)

● Floating refrigerant temperature to balance comfort and efficiency

The evaporating temperature (in cooling) and condensing temperature (in heating) are automatically adjusted according to both indoor and outdoor temperature to maximize the comfort and energy efficiency.

Output limitation during electricity supply restrictions

● With the integration of EMS, for projects with temporary electricity supply restrictions, X/Xi Series can be set to output 40-100% capacity.

Floating evaporating temperature °C

Evaporating temperature °C

15
10
5

17   32
Temperature °C

100%
90%
80%
70%
60%
50%
40%
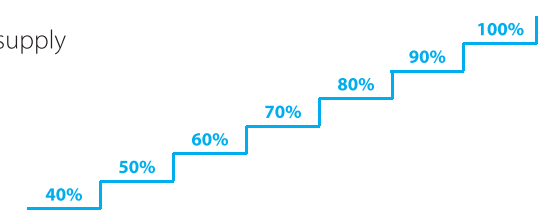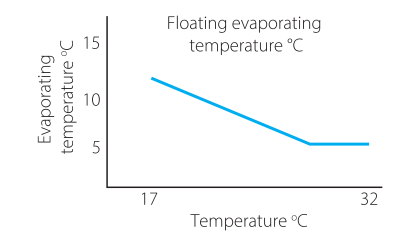
Enhanced Vapor Injection (EVI) Compressor

Thanks to the vapor injection DC inverter compressor, the VX VRF can run heating mode stably down to -23°C, and the heating capacity can be improved greatly.

EVI compressor

P

m+Δm Refrigerant circulation increased

Δm

m

Outdoor evaporation capacity increased

h
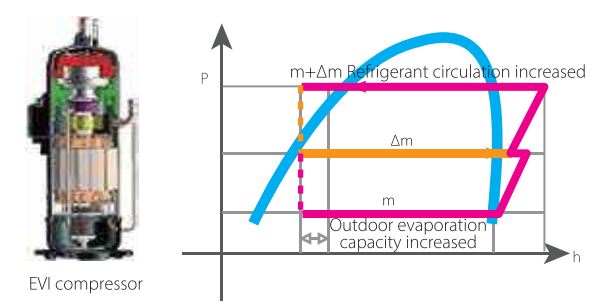
Triple Configurations

Triple (local/remote/network) configurations greatly simplified installation, commissioning and servicing.

● Field local configuration achieves quick and easy on-site settings, simplifies installation and commissioning.

● System checking and settings also can be easily achieved via wired and centralized controller, making the configuration more flexible and convenient.

● A desktop or laptop PC can be used for browser-based access to achieve system configurations through IMM Pro gateway via a LAN connection.

High Efficiency

Plate Heat Exchanger (PHE) Subcooling

Plate Heat Exchanger as a secondary intercooler boosts up refrigerant subcooling and improves 10% energy efficiency.

1st stage

2nd stage
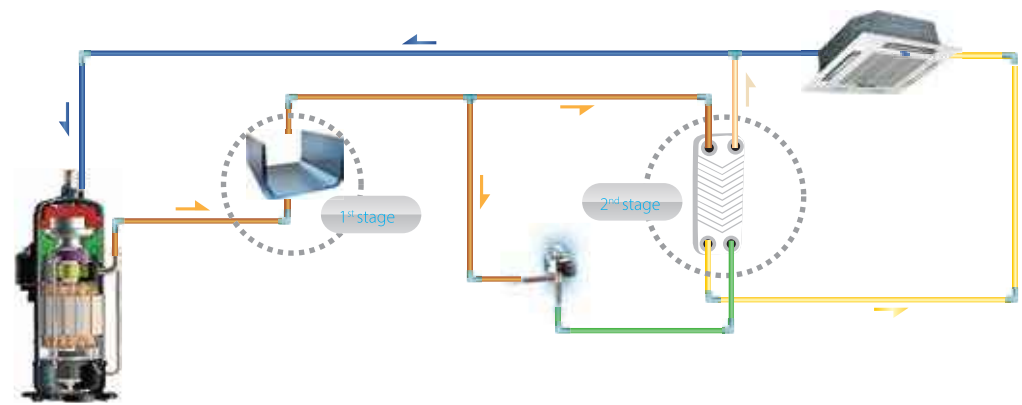
High Efficiency G-Type Heat Exchanger

26-34HP units use a high efficiency 3-row G-type heat exchanger with a heat exchange area 1.5 times that of the 24HP unit. The 26-34HP units also use super big size fan which diameter is up to 750mm.

3-rows G-type heat exchanger

Super big size fan

Wide Application Range

Wide Capacity Range

Starting at 8HP, capacity increases in 2HP increments up to102HP, which is the world's largest single-system VRF capacity.

8/10/12/14HP (with single fan)

16/18HP (With single fans)

20/22/24HP (with dual fans)

26/28/30/32/34HP (with dual fans)

16-68HP

24-102HP

Wide Operation Range

The VX VRF can operate stably in a wide ambient temperature range: from -5°C to 54°C in cooling mode and from -25°C to 24°C in heating mode.
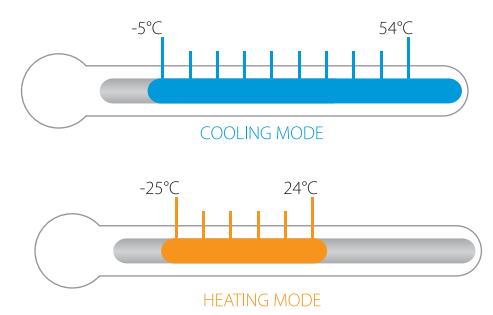
-5°C   54°C

COOLING MODE

-25°C   24°C

HEATING MODE

Long Piping Capability

- Total piping length: 1000m
- Longest piping length – actual (equivalent): 175m (200m)
- Longest piping length after first branch: 90m
- Level difference between IDUs and ODU – ODU above (below): 90m (110m)
- Level difference between IDUs: 30m

Longest actual piping length 175m

90m

Level difference between IDU–ODU 110m

Level difference between IDU–IDU 30m
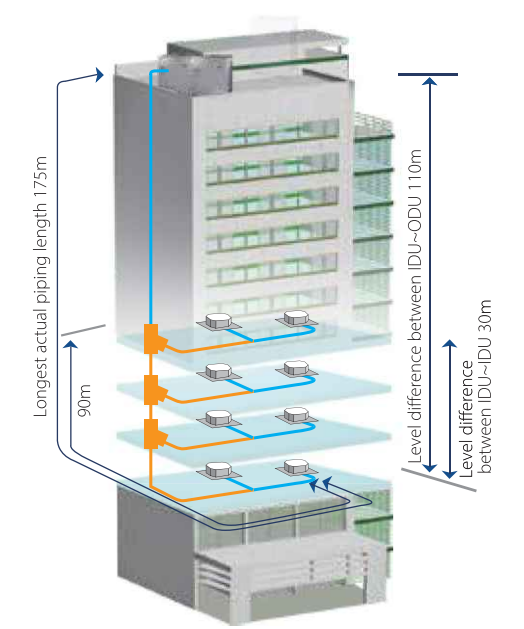
High Reliability

Duty Cycling

Duty cycling equalizes the running time of the outdoor units in a multiple-unit system and of the compressors in each unit, significantly extending compressor lifespan.

1st cycle   2nd cycle   3rd cycle

Precise Oil Control Technology

Four stages of oil control technology ensure all outdoor compressor oil is always kept at a safe level, eliminating any compressor oil shortage problems.

- Compressor internal oil separation.

- High-efficiency centrifugal oil separator (with separation efficiency of up to 99%) ensures that oil is separated from the discharge gas and returned to the compressors in a timely fashion.

- Oil balance pipes between compressors ensure even oil distribution to keep compressors running normally.

- Auto oil return program monitors the running time and system status to ensure reliable oil return.
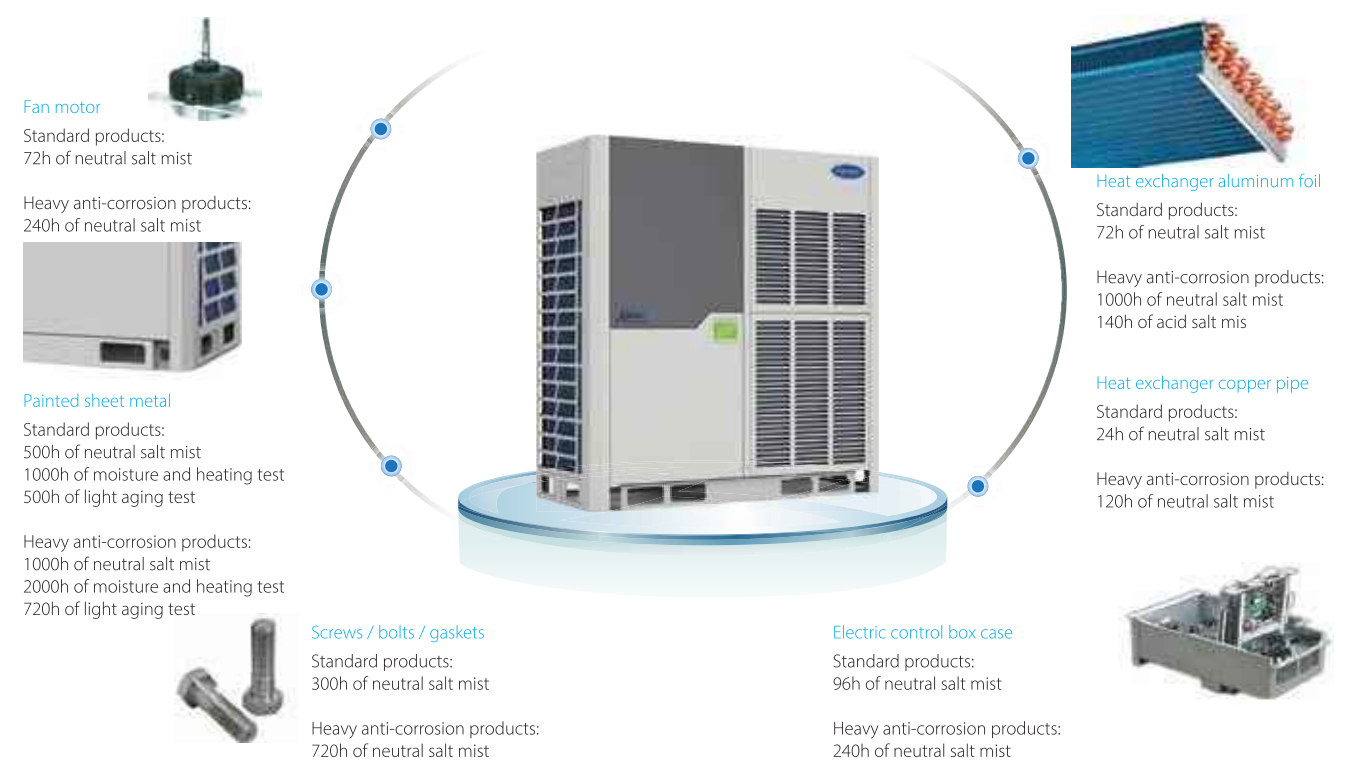

1st stage
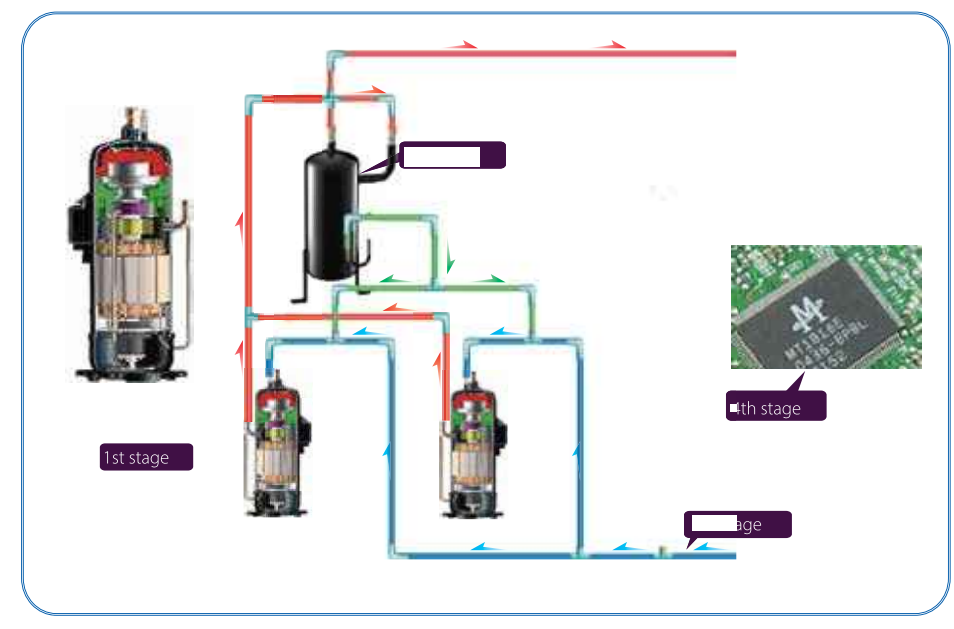
High Reliability

Backup Operation

In units with two compressors, if one compressor fails, the other compressor can run on its own for up to 4 days, allowing time for maintenance or repair whilst maintaining comfort.

Operation compressor

Standby compressor

Failed compressor

Compressor backup
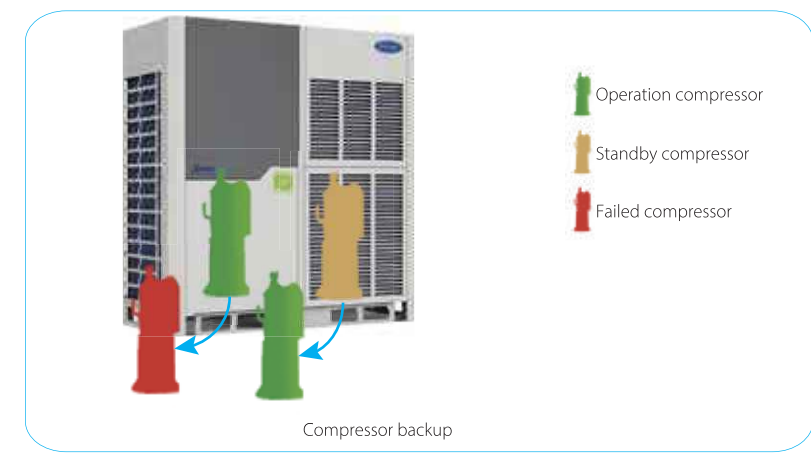
Anti-corrosion Protection

Outdoor units are given anti-corrosion treatment for non-extreme conditions as standard and can also be customized with heavy anti-corrosion treatment on main components for surface protection against corrosive air, acid rain and saline air (for installations in coastal regions) to extend overall useful life. The integrity of the anti-corrosion treatment is ensured by subjecting major components and parts to salt mist testing, moisture and heating testing and light aging testing.

Fan motor
Standard products:
72h of neutral salt mist

Heavy anti-corrosion products:
240h of neutral salt mist

Painted sheet metal
Standard products:
500h of neutral salt mist
1000h of moisture and heating test
500h of light aging test

Heavy anti-corrosion products:
1000h of neutral salt mist
2000h of moisture and heating test
720h of light aging test

Screws / bolts / gaskets
Standard products:
300h of neutral salt mist

Heavy anti-corrosion products:
720h of neutral salt mist

Heat exchanger aluminum foil
Standard products:
72h of neutral salt mist

Heavy anti-corrosion products:
1000h of neutral salt mist
140h of acid salt mis

Heat exchanger copper pipe
Standard products:
24h of neutral salt mist

Heavy anti-corrosion products:
120h of neutral salt mist

Electric control box case
Standard products:
96h of neutral salt mist

Heavy anti-corrosion products:
240h of neutral salt mist

High Reliability

Refrigerant Cooling PCB

The VX VRF uses refrigerant cooling technology to cool the electric control box. It decreases the average temperature of electrical control components by about 8 degrees, guaranteeing the stable and safe running of the control system.
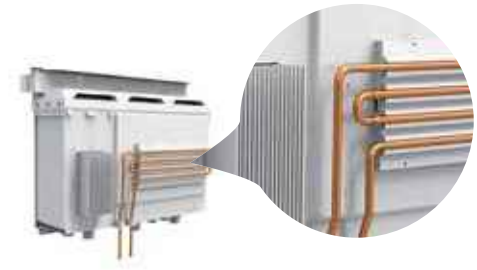
Real-time Refrigerant Amount Monitoring

The temperature and pressure of refrigerant can be real-time monitored by the outdoor unit. When the level of refrigerant is too low or too high, this can cause damage to the unit and poor performance. The VX outdoor unit can detect excessive or insufficient amounts of refrigerant, to ensure consistent performance.

Detects excessive refrigerant

Detects normal refrigerant

Detects insufficient refrigerant

110%

90%

R410A
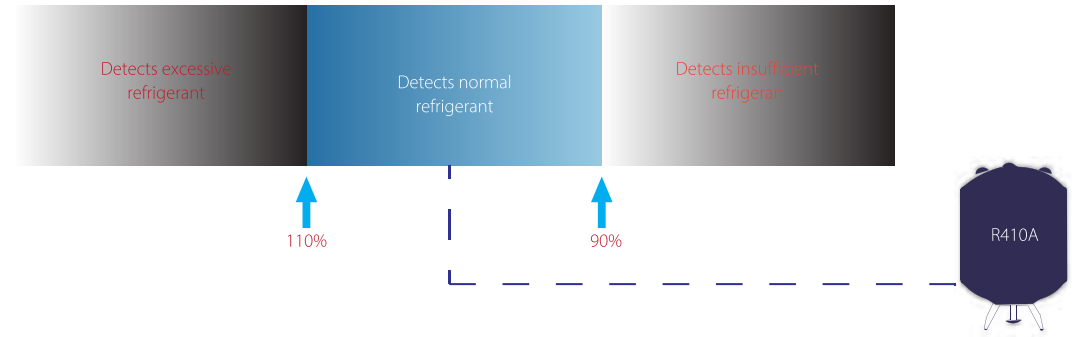
Auto Snow-blowing Function*

The innovatively designed auto snow-blowing function enables the outdoor unit to prevent the accumulation of snow by itself.

*This function is available as a customization option.

Dust-clean function*

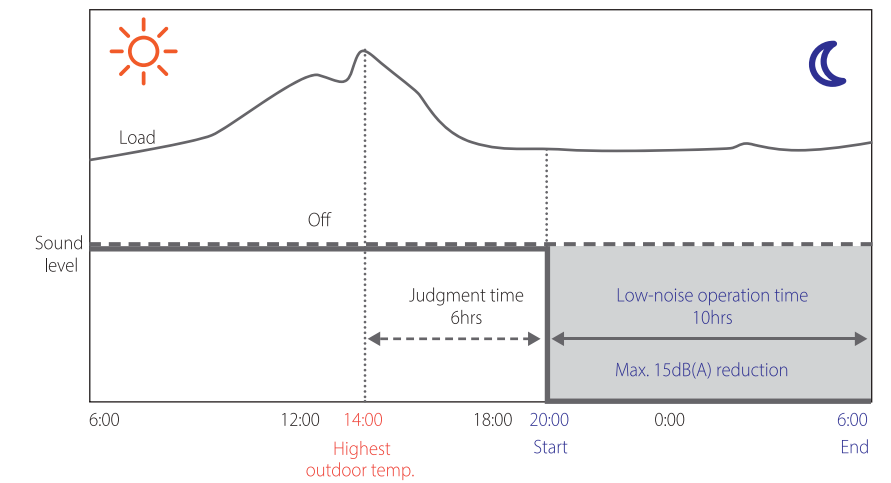The innovatively designed dust-clean function enables the outdoor unit to prevent the dust by itself.

*This function is available as a customization option.

Self-clean

Enhanced Comfort

Night Silent Mode

The night silent mode feature, which is easily configured on the outdoor unit's PCB, includes various scheduling options that can be used to reduce noise levels at times when low noise operation is required.

Load

Off

Sound level

Judgment time 6hrs

Low-noise operation time 10hrs

Max. 15dB(A) reduction

6:00   12:00   14:00   18:00   20:00   0:00   6:00
                  Highest   Start   End
                  outdoor temp.

Enhanced Heating Capacity

Heating capacity is 100% of rated capacity at ambient temperatures as low as -5°C and 90% of rated capacity at -15°C.

120%
100%
80%
60%
40%
20%
0%
-20   -15   -10   -5   0   5
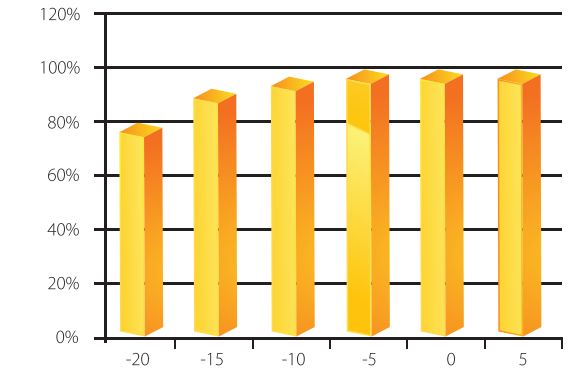
Intelligent Defrosting Technology

The intelligent defrosting program calculates the time required for defrosting according to the actual system status, eliminating heat losses from unnecessary defrosting. A specialized defrosting valve reduces time required for defrosting to as little at four minutes.

Intelligent defrosting

Usual defrosting

Heating capacity

t min   Δt

Time
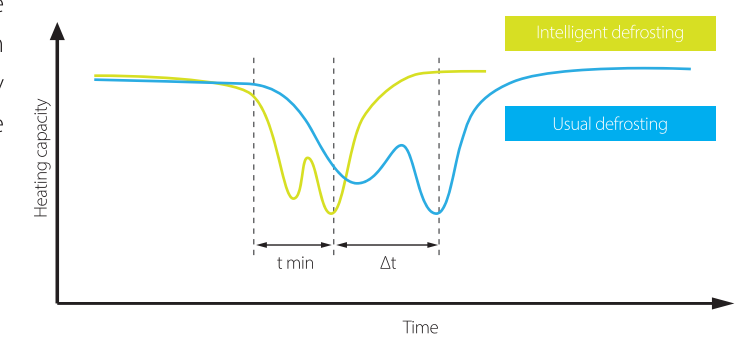
Easy Installation and Service

Non-polarized Communication Wiring*

Only one chain of 2-core non-polarized shielded communication wiring required for indoor and outdoor unit communication.

*In installations where relatively strong electromagnetic fields are present, 3-core shielded wiring should be used in order to prevent interference.
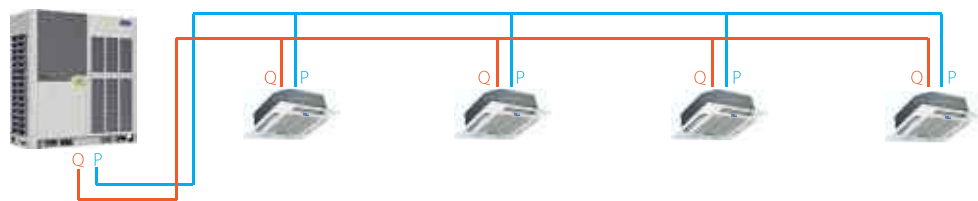
Auto Addressing

Outdoor units can distribute addresses to indoor units automatically. Remote and wired controllers can be used to query or modify each indoor unit's address.

Automatic Refrigerant Charging/Recycling Function*

Automatic refrigerant charging and recycling make installation and service easier and more efficient.

*This function is available as a customization option.
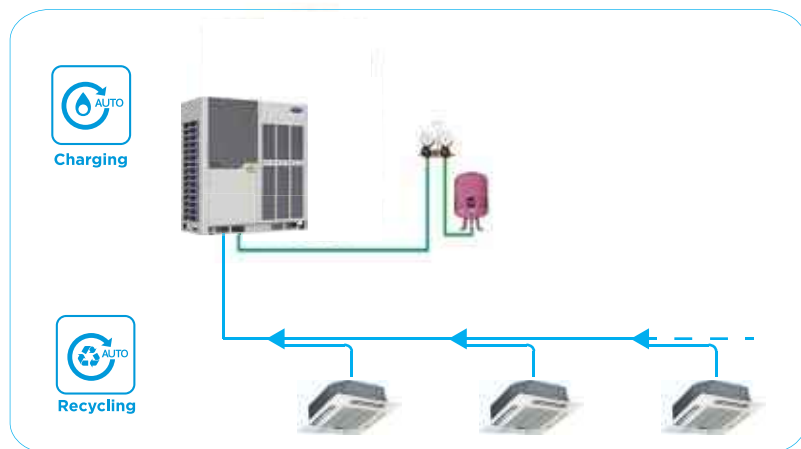
Optional Multifunctional PCB

An optional multifunctional small PCB can be installed on the unit's side columns, enabling installation and service engineers to activate Auto-commissioning or check the operating status without removing the front panel. It can also perform automatic data backup of the last 30 minutes' operating record.
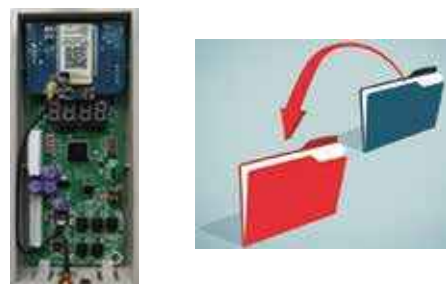
Specifications (VX Series)

Capacity		HP	8	10	12	14
Model			38VF008H11901X	38VF010H11901X	38VF012H11901X	38VF014H11901X
Power supply		V/Ph/Hz	380-415/3/50			
Cooling[1]	Capacity	kW	25.2	28.0	33.5	40.0
		kBtu/h	86.0	95.5	114.3	136.5
Heating[2]	Capacity	kW	27	31.5	37.5	45
		kBtu/h	92.1	107.5	128.0	153.5
Connectable Indoor Unit	Max. quantity		13	16	20	23
Compressors	Type		DC inverter			
	Quantity		1			
Fan motors	Type		DC			
	Quantity		1			
Refrigerant	Type		R410A			
	Factory charge	kg	11			13
Pipe connections[3]	Liquid pipe	mm	Φ12.7		Φ15.9	Φ15.9
	Gas pipe	mm	Φ25.4		Φ28.6	Φ31.8
Airflow rate		m³/h	11000			13000
Sound pressure level[4]		dB(A)	58		60	
Net dimensions (WxHxD)		mm	990x1635x790			
Net weight		kg	227			
Ambient temp.	Cooling	°C	-5 to 54			
operating range	Heating	°C	-25 to 24			

Capacity		HP	16	18	20	22
Model			38VF016H11901X	38VF018H11901X	38VF020H11901X	38VF022H11901X
Power supply		V/Ph/Hz	380-415/3/50			
Cooling[1]	Capacity	kW	45.0	50.0	56.0	61.5
		kBtu/h	153.5	170.6	191.1	209.8
Heating[2]	Capacity	kW	50	56	63	69
		kBtu/h	170.6	191.1	215.0	235.4
Connectable Indoor Unit	Max. quantity		26	29	33	36
Compressors	Type		DC inverter			
	Quantity		1		2	
Fan motors	Type		DC			
	Quantity		1		2	
Refrigerant	Type		R410A			
	Factory charge	kg	13		17	
Pipe connections[3]	Liquid pipe	mm	Φ15.9		Φ19.1	
	Gas pipe	mm	Φ31.8		Φ31.8	
Airflow rate		m³/h	13000		17000	
Sound pressure level[4]		dB(A)	60	61	63	
Net dimensions (WxHxD)		mm	1340×1635×825			
Net weight		kg	304		348	
Ambient temp.	Cooling	°C	-5 to 54			
operating range	Heating	°C	-25 to 24			

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Diameters given are those of the unit's stop valves.
4. Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

Specifications (VX Series)

Capacity		HP	24	26	28
Model			38VF024H11901X	38VF026H11901X	38VF028H11901X
Power supply		V/Ph/Hz	380-415/3/50		
Cooling[1]	Capacity	kW	67.0	73.0	78.5
		kBtu/h	228.6	249.1	267.8
Heating[2]	Capacity	kW	75	81.5	87.5
		kBtu/h	255.9	278.1	298.6
Connectable Indoor Unit	Max. quantity		39	43	46
Compressors	Type		DC inverter		
	Quantity		2		
Fan motors	Type		DC		
	Quantity		2		
Refrigerant	Type		R410A		
	Factory charge	kg	17	22	
Pipe connections[3]	Liquid pipe	mm	Φ19.1	Φ22.2	
	Gas pipe	mm	Φ31.8	Φ31.8	
Airflow rate		m³/h	17000	25000	
Sound pressure level[4]		dB(A)	63	64	
Net dimensions (WxHxD)		mm	1340x1635x825	1730 × 1830 × 825	
Net weight		kg	348	430	
Ambient temp. operating range	Cooling	°C	-5 to 54		
	Heating	°C	-25 to 24		

Capacity		HP	30	32	34
Model			38VF030H11901X	38VF032H11901X	38VF034H11901X
Power supply		V/Ph/Hz	380-415/3/50		
Cooling[1]	Capacity	kW	85.0	90.0	95.0
		kBtu/h	290.0	307.1	324.1
Heating[2]	Capacity	kW	95	100	106
		kBtu/h	324.1	341.2	361.7
Connectable Indoor Unit	Max. quantity		50	53	56
Compressors	Type		DC inverter		
	Quantity		2		
Fan motors	Type		DC		
	Quantity		2		
Refrigerant	Type		R410A		
	Factory charge	kg	22	25	
Pipe connections[3]	Liquid pipe	mm	Φ22.2		
	Gas pipe	mm	Φ38.1		
Airflow rate		m³/h	25000	24000	
Sound pressure level[4]		dB(A)	64		
Net dimensions (WxHxD)		mm	1730 × 1830 × 825		
Net weight		kg	430	475	
Ambient temp. operating range	Cooling	°C	-5 to 54		
	Heating	°C	-25 to 24		

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Diameters given are those of the unit's stop valves.
4. Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.
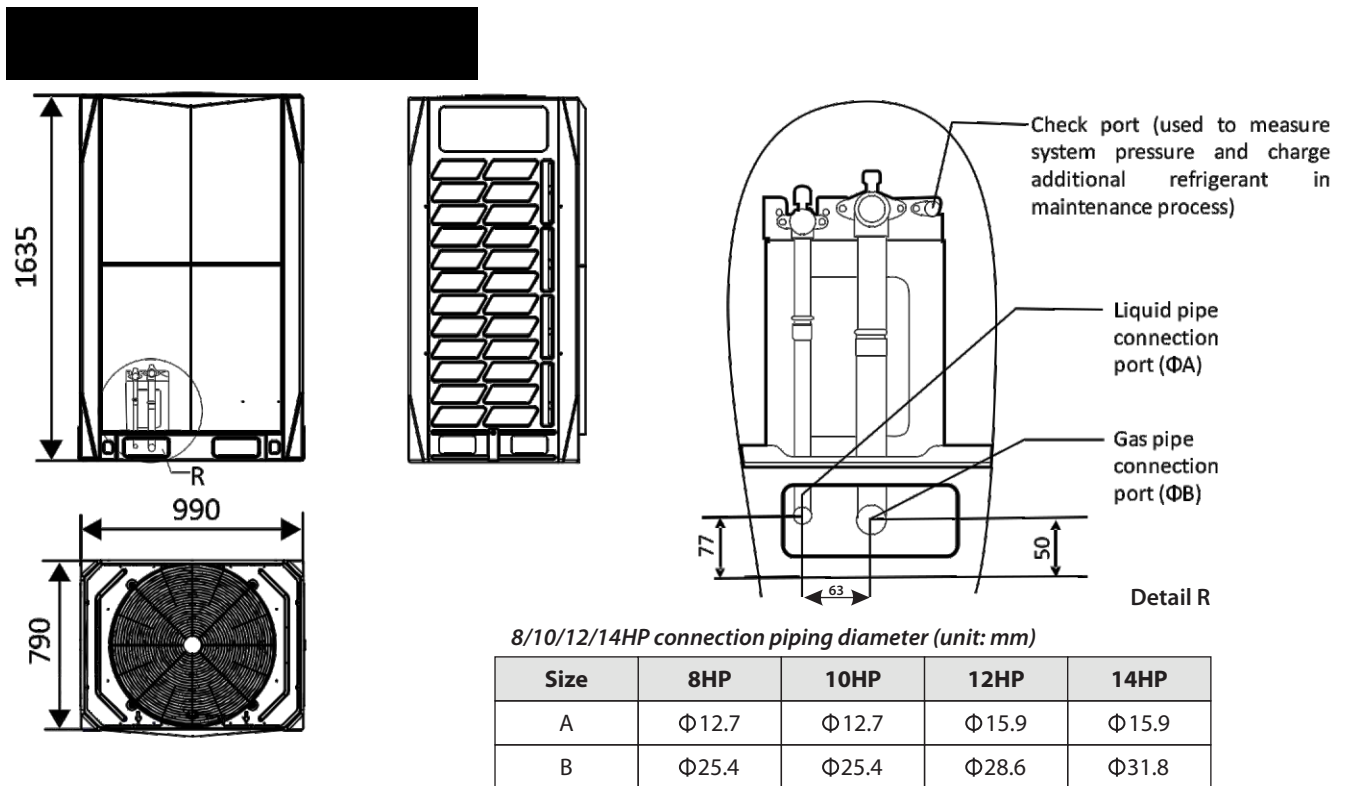
Recommended combination table

System capacity kW	HP	Number of units	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP	34HP
25.2	8	1	•													
28.0	10	1		•												
33.5	12	1			•											
40.0	14	1				•										
45.5	16	1					•									
50.0	18	1						•								
56.0	20	1							•							
61.5	22	1								•						
67.0	24	1									•					
73.0	26	1										•				
78.5	28	1											•			
85.0	30	1												•		
90.0	32	1													•	
95.0	34	1														•
100.5	36	2			•						•					
107.0	38	2				•					•					
112.0	40	2					•				•					
117.0	42	2						•			•					
123.0	44	2								••						
128.5	46	2								•	•					
134.0	48	2									••					
140.0	50	2									•	•				
145.5	52	2									•		•			
152.0	54	2									•			•		
157.0	56	2											••			
163.5	58	2											•	•		
170.0	60	2												••		
175.0	62	2												•	•	
180.0	64	2												•		•
185.0	66	2													•	•
190.0	68	2														••
195.5	70	3			•						•					•
202.0	72	3				•					•					•
207.0	74	3					•				•					•
212.0	76	3						•			•					•
218.0	78	3								••						•
223.5	80	3								•	•					•
229.0	82	3									••					•
235.0	84	3									•	•				•
240.5	86	3									•		•			•
247.0	88	3									•			•		•
252.0	90	3											••			•
258.5	92	3											•	•		•
265.0	94	3												••		•
270.0	96	3												•	•	•
275.0	98	3												•		••
280.0	100	3													•	••
285.0	102	3														•••

Notes:
Capacities are based on the following conditions:
Cooling: Indoor temperature 27°C DB/19°C(66.2°F) WB; Outdoor temperature 35°C(95°F) DB/24°C(75.2°F) WB
Heating: Indoor temperature 20°C(68°F) DB/15°C(59°F) WB; Outdoor temperature 7°C(44.6°F) DB/6°C(42.8°F) WB
Piping length: Interconnecting piping length is 7.5m(24.6ft), level difference is zero.
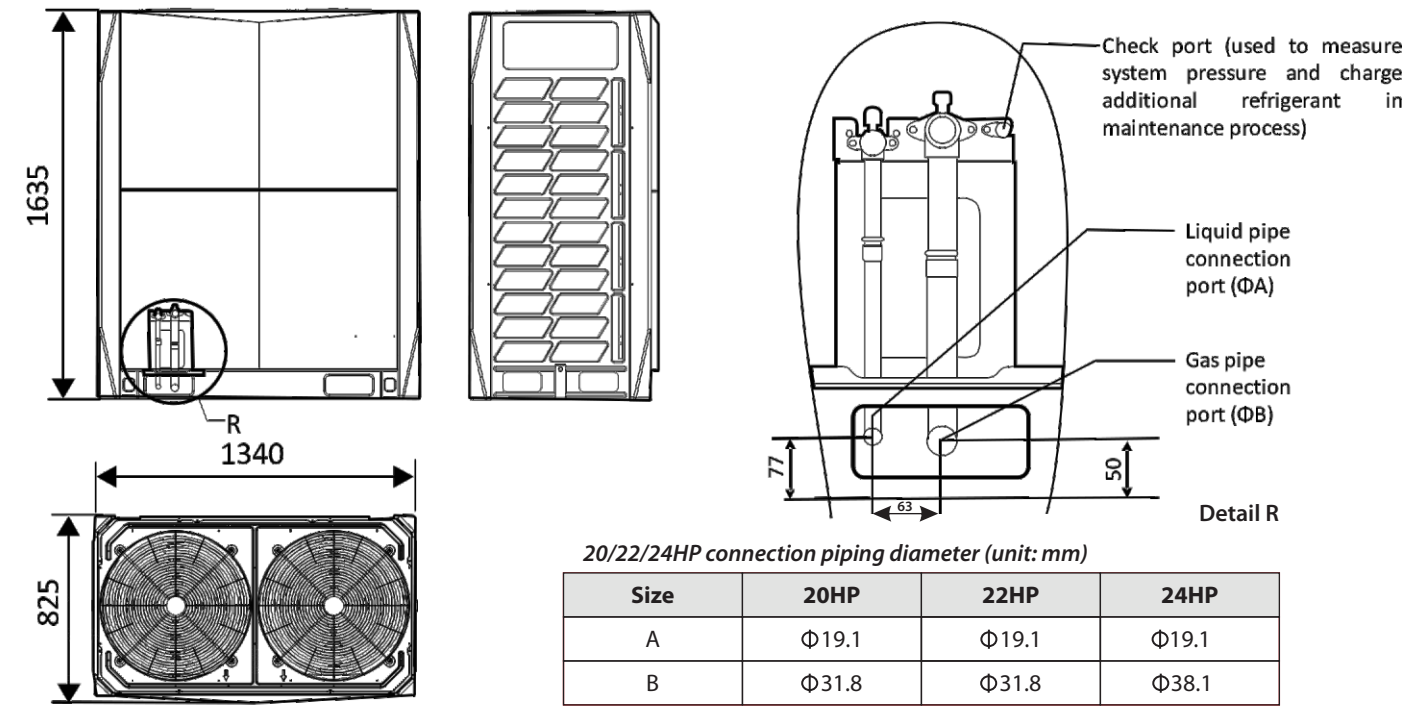The above combination models are factory-recommended models
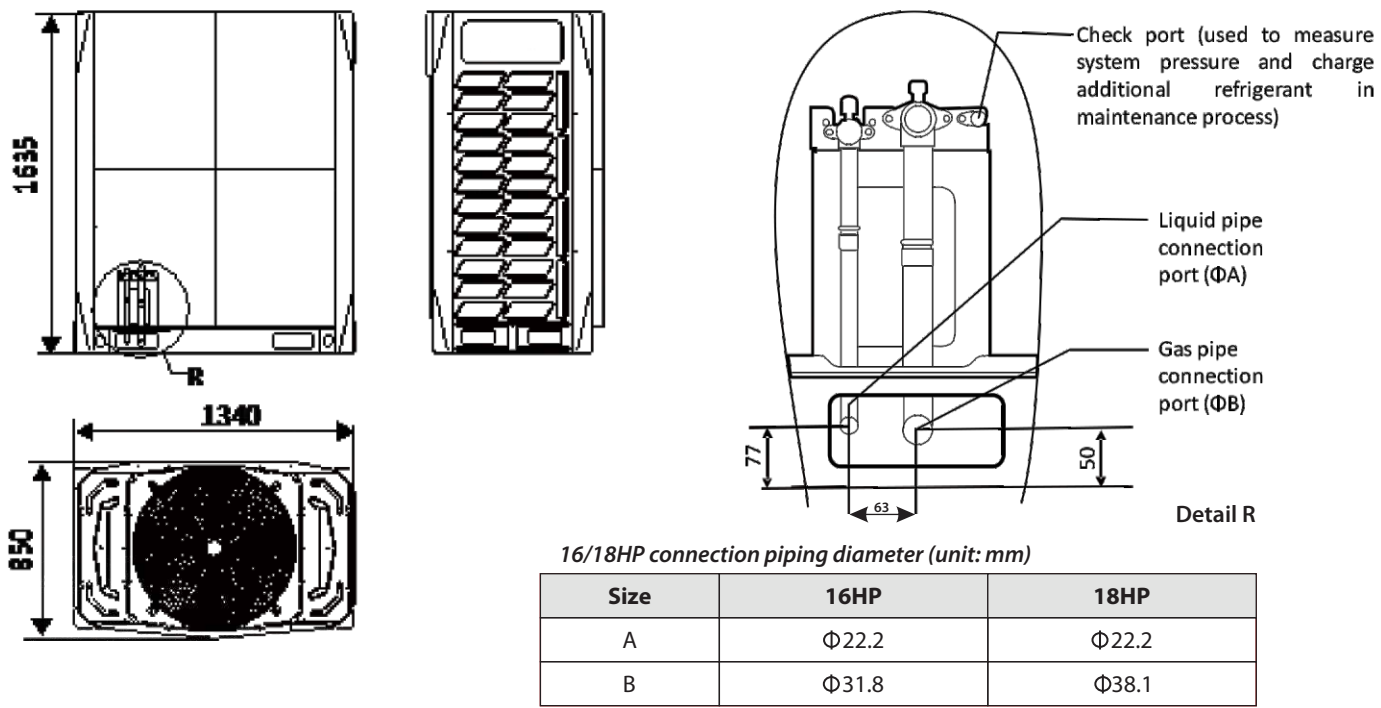
Dimensions (VX VRF 50/60Hz)

8/10/12/14HP connection piping diameter (unit: mm)

Size	8HP	10HP	12HP	14HP
A	Φ12.7	Φ12.7	Φ15.9	Φ15.9
B	Φ25.4	Φ25.4	Φ28.6	Φ31.8

16/18HP

Figure 2-2.2: 16/18HP dimensions (unit: mm)

Detail R

16/18HP connection piping diameter (unit: mm)

Size	16HP	18HP
A	Φ22.2	Φ22.2
B	Φ31.8	Φ38.1

20/22/24HP

Figure 2-2.3: 20/22/24HP dimensions (unit: mm)

Detail R

20/22/24HP connection piping diameter (unit: mm)

Size	20HP	22HP	24HP
A	Φ19.1	Φ19.1	Φ19.1
B	Φ31.8	Φ31.8	Φ38.1

26/28/30/32/34HP

Figure 2-2.4: 26/28/30/32/34HP dimensions (unit: mm)

Detail R

26/28/30/32/34HP connection piping diameter (unit: mm)

Size	26HP	28HP	30HP	32HP	34HP
A	Φ22.2	Φ22.2	Φ22.2	Φ22.2	Φ22.2
B	Φ31.8	Φ31.8	Φ38.1	Φ38.1	Φ38.1
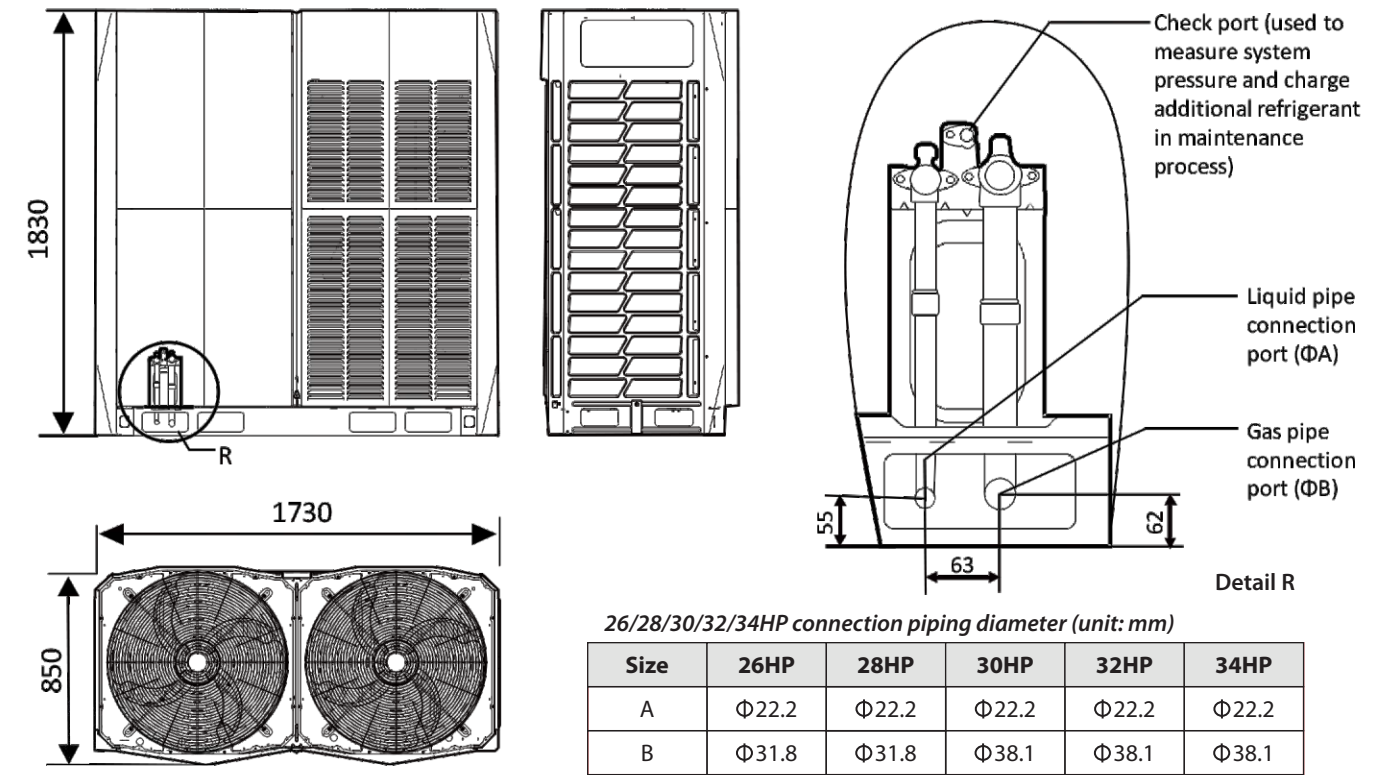
Specifications (VXi Series)

Capacity		HP	8	10	12
Model			38VF008H1190Xi	38VF010H1190Xi	38VF012H1190Xi
Power supply		V/Ph/Hz	380-415/3/50		
Cooling[1]	Capacity	kW	25.2	28	33.5
		kBtu/h	86	95.5	114.3
Heating[2]	Capacity	kW	27	31.5	37.5
		kBtu/h	92.1	107.5	128
Connected indoor unit	Maximum quantity		13	16	20
Compressors	Type		DC inverter		
	Quantity		1		
Fan motors	Type		DC		
	Quantity		1		
Refrigerant	Type		R410A		
	Factory charge	kg	11		
Pipe connections[3]	Liquid pipe	mm	Φ12.7		Φ15.9
	Gas pipe	mm	Φ25.4		Φ28.6
Airflow rate		m³/h	11000		
Sound pressure level[4]		dB(A)	58	58	60
Net dimensions (W×H×D)		mm	990×1635×790		
Net weight		kg	227		
Ambient temp.	Cooling	°C	-5 to 54		
operating range	Heating	°C	-25 to 24		

Capacity		HP	14	16	18
Model			38VF014H1190Xi	38VF016H1190Xi	38VF018H1190Xi
Power supply		V/Ph/Hz	380-415/3/50		
Cooling[1]	Capacity	kW	40	45	50
		kBtu/h	136.5	153.5	170.6
Heating[2]	Capacity	kW	45	50	56
		kBtu/h	153.5	170.6	191.1
Connected indoor unit	Maximum quantity		23	26	29
Compressors	Type		DC inverter		
	Quantity		1		
Fan motors	Type		DC		
	Quantity		1		
Refrigerant	Type		R410A		
	Factory charge	kg	11		13
Pipe connections[3]	Liquid pipe	mm	Φ15.9		Φ19.1
	Gas pipe	mm	Φ31.8		
Airflow rate		m³/h	11000	13000	
Sound pressure level[4]		dB(A)	60		61
Net dimensions (W×H×D)		mm	990x1635x790	1340x1635x850	
Net weight		kg	227	277	
Ambient temp.	Cooling	°C	-5 to 54		
operating range	Heating	°C	-25 to 24		

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20℃ DB; outdoor temperature 7℃ DB, 6℃ WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Diameters given are those of the unit's stop valves.
4. Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.
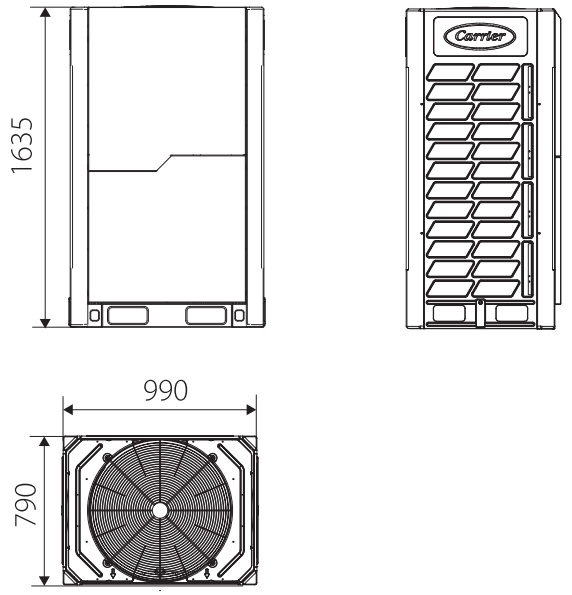
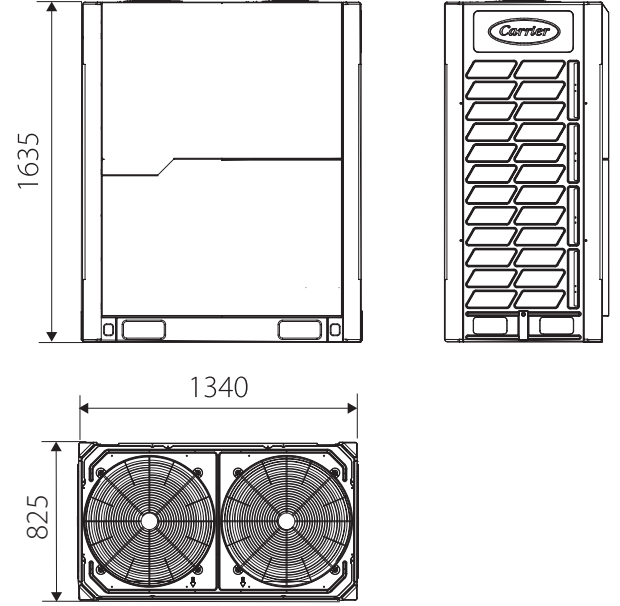## Specifications (VXi Series)

Capacity		HP	20	22
Model			38VF020H1190Xi	38VF022H1190Xi
Power supply		V/Ph/Hz	380-415/3/50	
Cooling[1]	Capacity	kW	56	61.5
		kBtu/h	191.1	209.8
Heating[2]	Capacity	kW	63	69
		kBtu/h	215	235.4
Connected indoor unit	Maximum quantity		33	36
Compressors	Type		DC inverter	
	Quantity		1	2
Fan motors	Type		DC	
	Quantity		1	2
Refrigerant	Type		R410A	
	Factory charge	kg	13	17
Pipe connections[3]	Liquid pipe	mm	Φ19.1	
	Gas pipe	mm	Φ31.8	
Airflow rate		m³/h	13000	17000
Sound pressure level[4]		dB(A)	62	63
Net dimensions (W×H×D)		mm	1340x1635x850	1340x1635x825
Net weight		kg	295	344
Ambient temp.	Cooling	°C	-5 to 54	
operating range	Heating	°C	-25 to 24	

Capacity		HP	24	26	28	30	32	34
Model			38VF024H1190Xi	38VF026H1190Xi	38VF028H1190Xi	38VF030H1190Xi	38VF032H1190Xi	38VF034H1190Xi
Power supply		V/Ph/Hz	380-415/3/50					
Cooling[1]	Capacity	kW	67	73	78.5	85	90	95
		kBtu/h	228.6	249.1	267.8	290	307.1	324.1
Heating[2]	Capacity	kW	75	81.5	87.5	95	100	106
		kBtu/h	255.9	278.1	298.6	324.1	341.2	361.7
Connected indoor unit	Maximum quantity		39	43	46	50		53
Compressors	Type		DC inverter					
	Quantity		2					
Fan motors	Type		DC					
	Quantity		2					
Refrigerant	Type		R410A					
	Factory charge	kg	17		22			25
Pipe connections[3]	Liquid pipe	mm	Φ19		Φ22.2			
	Gas pipe	mm	Φ31.8				Φ38.1	
Airflow rate		m³/h	17000		25000			24000
Sound pressure level[4]		dB(A)	63		64			
Net dimensions (W×H×D)		mm	1340x1635x825		1730x1830x850			
Net weight		kg	344	407		429		475
Ambient temp.	Cooling	°C	-5 to 54					
operating range	Heating	°C	-25 to 24					

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20℃ DB; outdoor temperature 7℃ DB, 6℃ WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Diameters given are those of the unit's stop valves.
4. Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.
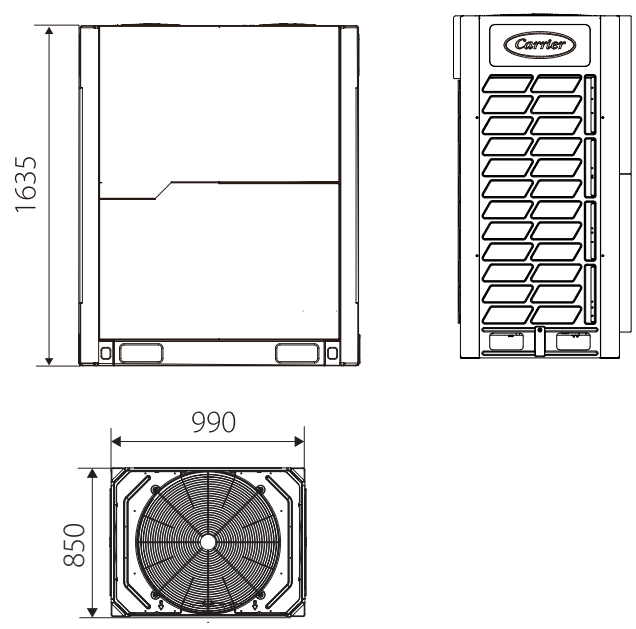
Dimensions

Body dimension
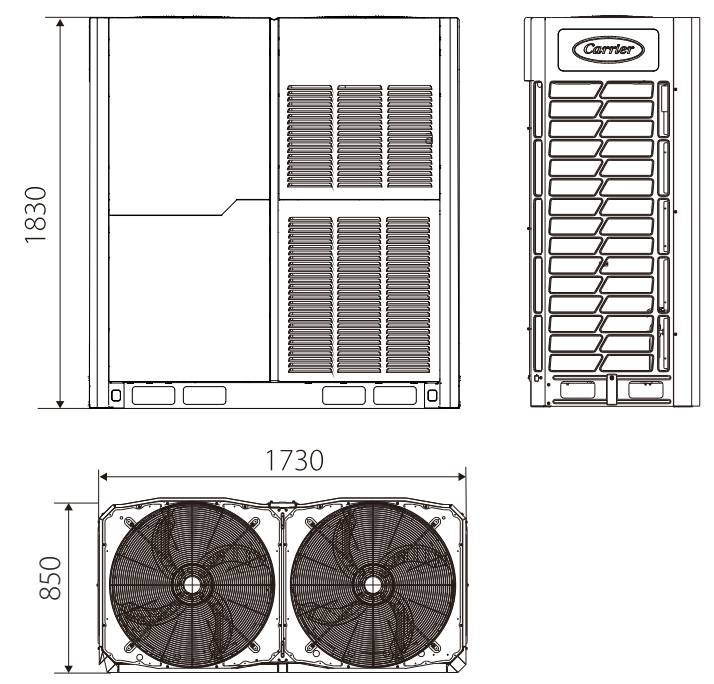
Unit: in.(mm)

8~14HP

1635
990
790

22/24HP

1635
1340
825

16/18/20 HP

1635
990
850

### 26/28/30/32/34HP

1830
1730
850

VC Pro Series
Cooling Only VRF

Energy saving

Energy Management System (EMS)

- Floating refrigerant temperature to balance comfort and efficiency
  The evaporating temperature is automatically adjusted according to both indoor and outdoor temperature to maximize the comfort and energy efficiency.

- Output limitation during electricity supply restrictions
  With the integration of EMS, for projects with temporary electricity supply restrictions, CO VRF can be set to output 40-100% capacity.
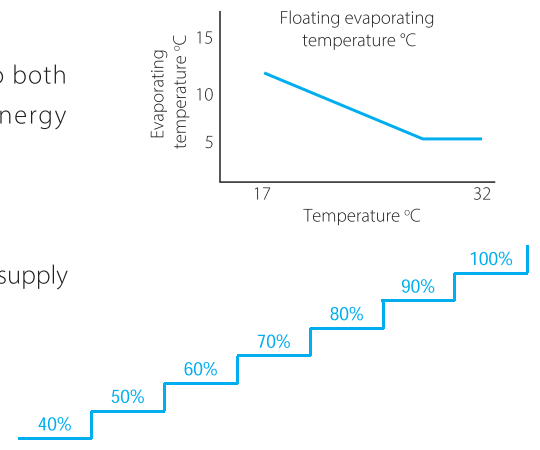
4-side heat exchanger

G-type heat exchangers have higher energy efficiency than the U-type.
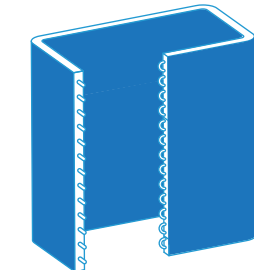
2-rows G-type heat exchanger

High efficiency"2-1"refrigerant flow

The high efficiency "2-1" refrigerant flow increases the proportion of liquid refrigerant in heat exchanger and improve heat exchange efficiency.

Normal refrigerant flow

Gas refrigerant → Liquid refrigerant

Gas refrigerant → | Gas phase | Gas-liquid phase | liquid phase | → Liquid refrigerant
Gas refrigerant → | | | | → Liquid refrigerant

VS

High efficiency"2-1"refrigerant flow

Gas refrigerant → Liquid refrigerant

Increase the proportion of liquid refrigerant in heat exchanger and improve heat exchange efficiency

Gas refrigerant → | Gas phase | Gas-liquid phase | liquid phase | → Liquid refrigerant
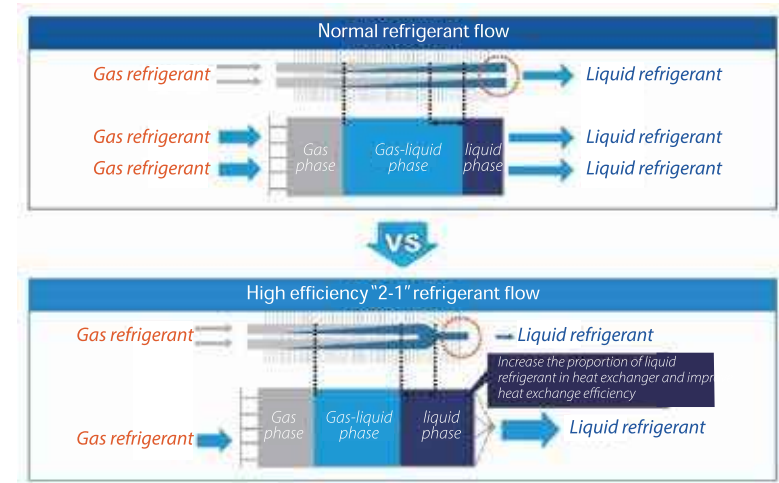
Wide Application Range

Wide Capacity Range

For single unit,the footprint is small and maximum capacity is up to 32HP. For combined units,maximum three 32HP units can be combined with capacity up to 96HP.

8/10/12/14/16/18HP
(with single fan)

20/22/24HP
(with dual fans)

26/28/30/32HP
(with dual fans)

Wide Operation Rang

The CO VRF can operate stably in a wide ambient temperature range: from -5℃ to 55℃ in cooling mode.
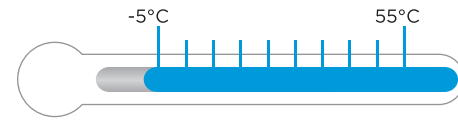
-5℃   55℃

Long Piping Capability

- Total piping length: 1000m
- Longest piping length-actual (equivalent): 175m(200m)
- Longest piping length after first branch: 40/90*m
- Level difference between IDUs and ODU-ODU above (below): 90m (110m)
- Level difference between IDUs: 30m
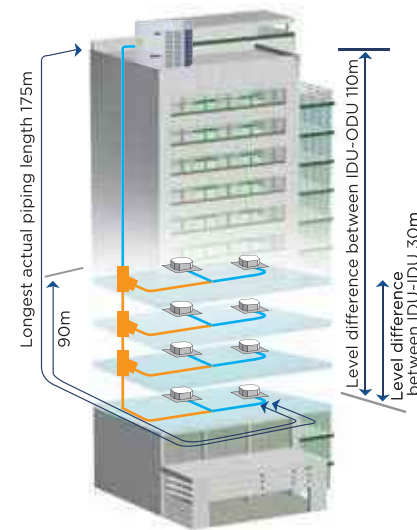
*The longest length after 1st branch is 40m as standard but can be extended up to 90m under certain conditons. Please contact your local Carrier dealer for further information

Longest actual piping length 175m

Level difference between IDU-ODU 110m

Level difference between IDU-IDU 30m

90m

Selectable ESP of outdoor unit*

Selectable external static pressure of outdoor unit: 0Pa, 20Pa, 40Pa, 60 Pa which can meet most of installation requirements.

*This function is availiable as a customization option.

12m

High Reliability

Real-time Refrigerant Amount Monitoring

The temperature and pressure of refrigerant can be real-time monitored by the outdoor unit. When the level of refrigerant is too low or too high, it can cause damage to the unit and poor performance. CO outdoor unit can detect excessive or insufficient amounts of refrigerant to ensure consistent performance.

Detects excessive refrigerant

Detects normal refrigerant

Detects insufficient refrigerant

110%   90%

R410A

Duty Cycling

Duty cycling equalizes the running time of the outdoor units in a multiple-unit system and of the compressors in each unit, significantly extending compressor lifespan.

1   2   3   3   1   2   2   3   1

1st cycle   2nd cycle   3rd cycle

In units with two compressors, if one compressor fails, the other compressor can run on its own for up to 4 days, allowing time for maintenance or repair whilst maintaining comfort.

Operation compressor
Standby compressor
Failed compressor

Compressor backup
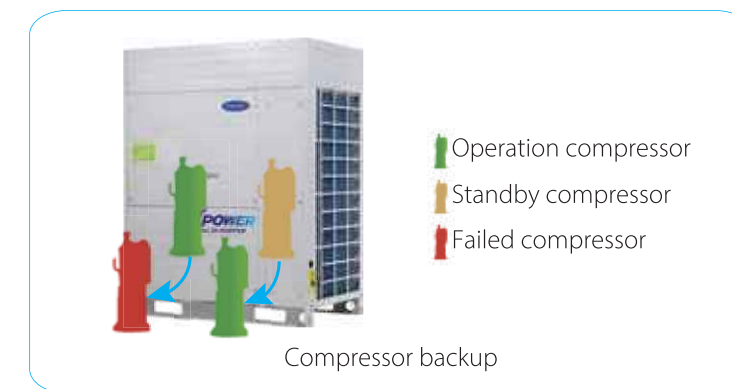
High Reliability

Refrigerant cooling PCB

The CO VRF uses refrigerant cooling technology to cool the electric control box. It decreases the average temperature of electrical control components by about 8 degrees, guaranteeing the stable and safe running of the control system.
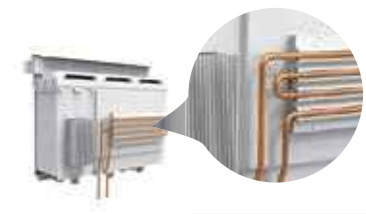
Intelligent Configurations

Intelligent configurations greatly simplify installation, commissioning and servicing.

● Field local configuration achieves quick and easy on-site settings, simplifies installation and commissioning.

● System checking and settings also can be easily achieved via wired controller making the configuration more flexible and convenient.

● A desktop or laptop PC can be used for browser-based access to achieve system configurations through IMMPRO gateway via a LAN connection.

Automatic Refrigerant Charging

Automatic refrigerant charging makes installation and service easier and more efficient.

*This function is available as a customization option.

Charging

Dust-clean function*

The innovatively designed dust-clean function enables the outdoor unit to prevent the dust by itself.

*This function is available as a customization option.

Enhanced Comfort

Optional silent modes

CO VRF has optional silent modes including night silent mode and non-night silent mode which provides more freedom and convenience to match the customers' needs. Different silent mode is achieved by setting up field settings or through the centralized controller.

Load

Off

Sound level

Judgment time 6hrs

Low-noise operation time 10hrs

Max. 15dB(A) reduction

6:00   12:00   14:00   18:00 20:00   0:00   6:00
                Highest   Start   End
              outdoor temp.
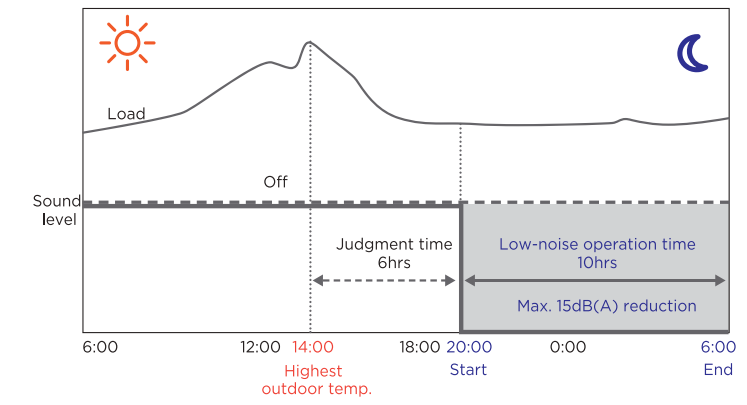
Silent technology features

Several noise reducing components reduce the running noise of outdoor units.

1. New air director design
2. New air outlet grill
3. Anti-vibration design of motor mounting base

4. New low noise DC inverter compressor
5. Soundproofing design of DC inverter compressor
6. 3-dimensional simulation of pipeline anti-vibration design

7. Big size anti-vibration axial fan
8. Subcooling technology, low noise refrigerant flow
9. Anti-vibration casing design

10. Low noise fan motor
11. Multiple silent modes
12. Resonance avoidance technology

Precise temperature control

CO outdoor unit uses multiple and high precision EXVs to create comfortable indoor environment. The EXV control precision is up to 3000-stage which can precisely control refrigerant flow and guarantee stable indoor temperature. In this way,temperature setting can be adjusted in 0.5°C step, enabling precise comfort control.

3000
Stage EXV control
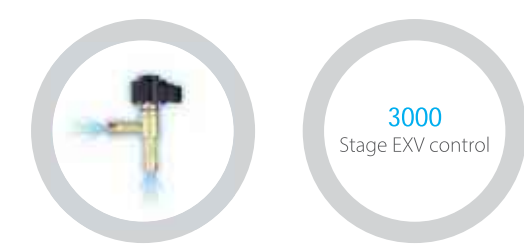
Specifications

HP			8	10	12
Model name			38VF008H11901C	38VF010H11901C	38VF012H11901C
Power supply		V/Ph/Hz	380-415V 3N~ 50Hz		
Cooling[1]	Capacity	kW	22.4	28.0	33.5
		kBtu/h	86.0	95.5	114.3
Connected indoor unit	Maximum quantity		13	16	20
Compressor	Type		DC inverter		
	Quantity		1		
Fan	Type		DC		
	Quantity		1		
	Airflow rate	m³/h	10400		
Refrigerant	Type		R410A		
	Factory charge	kg	11		
Pipe connections[2]	Liquid pipe	mm	Φ12.7		Φ15.9
	Gas pipe	mm	Φ25.4		Φ28.6
Sound pressure level[3]		dB(A)	58		60
Net dimensions (W×H×D)		mm	990x1635x990		
Net weight		kg	227		
Ambient temp.	Cooling	℃	-5 ℃ to 54 ℃		

HP			14	16	18	20
Model name			38VF014H11901C	38VF016H11901C	38VF018H11901C	38VF020H11901C
Power supply		V/Ph/Hz	380-415V 3N~ 50Hz			
Cooling[1]	Capacity	kW	40.0	45.0	50.0	56.0
		kBtu/h	136.5	153.5	170.6	191.1
Connected indoor unit	Maximum quantity		23	26	29	33
Compressor	Type		DC inverter			
	Quantity		1			2
Fan	Type		DC			
	Quantity		1			2
	Airflow rate	m³/h	10800	11600		12200
Refrigerant	Type		R410A			
	Factory charge	kg	8	11		13
Pipe connections[2]	Liquid pipe	mm	Φ15.9			Φ19.1
	Gas pipe	mm	Φ31.8			
Sound pressure level[3]		dB(A)	60		61	62
Net dimensions (W×H×D)		mm	960x1615x765			1250x1615x765
Net weight		kg	188		197	278
Ambient temp.	Cooling	℃	-5 ℃ to 54 ℃			

Notes:
1. T1 Cooling: Indoor temperature 27℃CDB/19℃ WB; Outdoor temperature 35℃ DB/24℃ WB;
   Piping length: Interconnecting piping length is 7.5m, level difference is zero.
2. Diameters given are those of the unit's accessories.
3. Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.
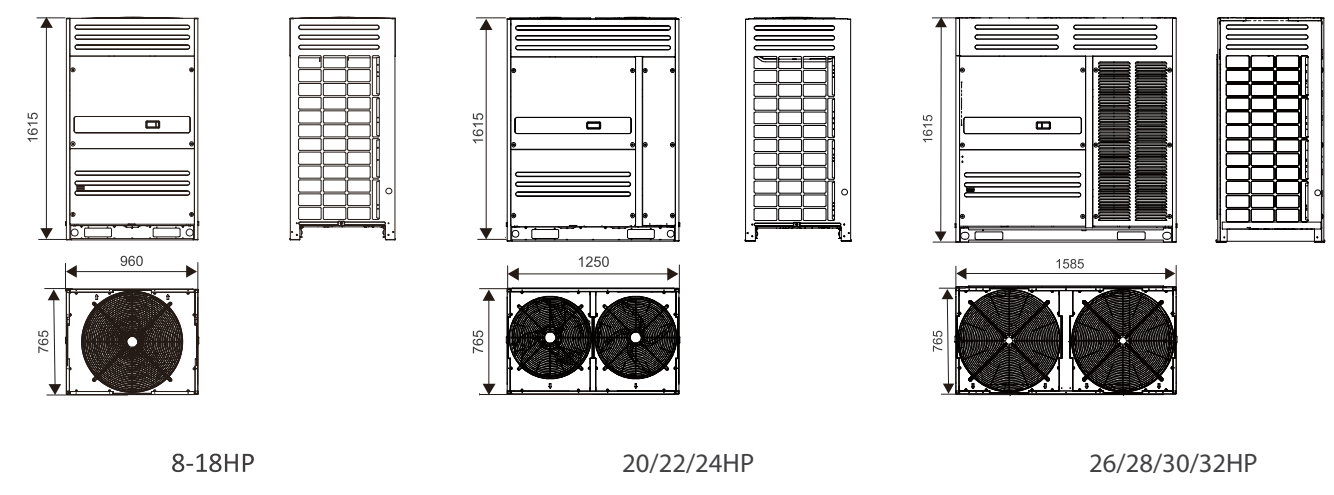
Specifications

HP			22	24	26
Model name			38VF022H11901C	38VF024H11901C	38VF026H11901C
Power supply		V/Ph/Hz	380-415V 3N~ 50Hz		
Cooling[1]	Capacity	kW	61.5	67	73
		kBtu/h	210.0	228.8	249.3
Connected indoor unit	Maximum quantity		36	39	43
Compressor	Type		DC inverter		
	Quantity		2		
Fan	Type		DC		
	Quantity		2		
	Airflow rate	m³/h	12200		19600
Refrigerant	Type		R410A		
	Factory charge	kg	13		19
Pipe connections[2]	Liquid pipe	mm	Φ19.1		Φ22.2
	Gas pipe	mm	Φ31.8		
Sound pressure level[3]		dB(A)	63		64
Net dimensions (W×H×D)		mm	1250×1615×765		1585×1615×765
Net weight		kg	278		319
Ambient temp.	Cooling	℃	-5 ℃ to 55 ℃		

HP			28	30	32
Model name			38VF028H11901C	38VF030H11901C	38VF032H11901C
Power supply		V/Ph/Hz	380-415V 3N~ 50Hz		
Cooling[1]	Capacity	kW	78.5	85	90
		kBtu/h	268.1	290.3	307.4
Connected indoor unit	Maximum quantity		46	50	53
Compressor	Type		DC inverter		
	Quantity		2		
Fan	Type		DC		
	Quantity		2		
	Airflow rate	m³/h	19600		20600
Refrigerant	Type		R410A		
	Factory charge	kg	19		
Pipe connections[2]	Liquid pipe	mm	Φ22.2		
	Gas pipe	mm	Φ31.8		Φ38.1
Sound pressure level[3]		dB(A)	63		64
Net dimensions (W×H×D)		mm	1585×1615×765		
Net weight		kg	319		
Ambient temp.	Cooling	℃	-5 ℃ to 55 ℃		

Notes:
1. T1 Cooling: Indoor temperature 27℃CDB/19℃ WB; Outdoor temperature 35℃ DB/24℃ WB;
   Piping length: Interconnecting piping length is 7.5m, level difference is zero.
2. Diameters given are those of the unit's accessories.
3. Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.
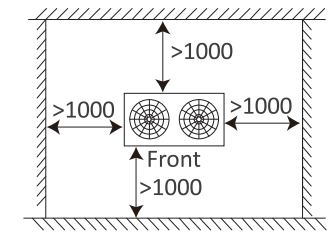
Outdoor unit combinations

System capacity		Number of units	Modules[1]												
kW	HP		8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
22.4	8	1	●												
28.0	10	1		●											
33.5	12	1			●										
40.0	14	1				●									
45.5	16	1					●								
50.0	18	1						●							
56.0	20	1							●						
61.5	22	1								●					
67.0	24	1									●				
73.0	26	1										●			
78.5	28	1											●		
85.0	30	1												●	
90.0	32	1													●
95.0	34	2					●	●							
100.0	36	2						●●							
107.0	38	2					●			●					
111.5	40	2						●		●					
117.0	42	2						●			●				
123.0	44	2						●				●			
128.5	46	2						●					●		
135.0	48	2						●						●	
140.0	50	2						●							●
145.5	52	2									●		●		
152.0	54	2									●			●	
157.0	56	2									●				●
163.5	58	2										●			●
170.0	60	2												●●	
175.0	62	2												●	●
180.0	64	2													●●
185.0	66	3					●	●							●
190.0	68	3						●●							●
196.5	70	3						●	●						●
201.5	72	3						●		●					●
207.0	74	3						●			●				●
213.0	76	3						●				●			●
218.5	78	3						●					●		●
225.0	80	3						●						●	●
230.0	82	3						●							●●
235.5	84	3									●		●		●
242.0	86	3									●			●	●
247.0	88	3									●				●●
253.5	90	3											●	●	●
260.0	92	3												●●	●
265.0	94	3												●	●●
270.0	96	3													●●●

Notes:
1.The combinations of units shown in the table are factory-recommended. Other combinations of units are also possible.
2.For systems with two or more outdoor units, outdoor branch joints (sold separately) are required.

Dimensional Drawing (mm)

1615 960 765

1615 1250 765

1615 1585 765

8-18HP   20/22/24HP   26/28/30/32HP

Single Unit installation (mm)

>1000
>1000 >1000
Front
>1000

Single Row Installation

>1m
>1m >1m
Front   Front
200-500mm

Multi-Row Installation

>1m
>1m
Front   Front
>1m
Front   Front
>1m
Front   Front
200-500mm
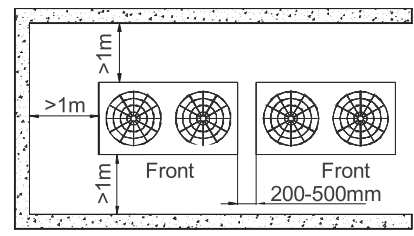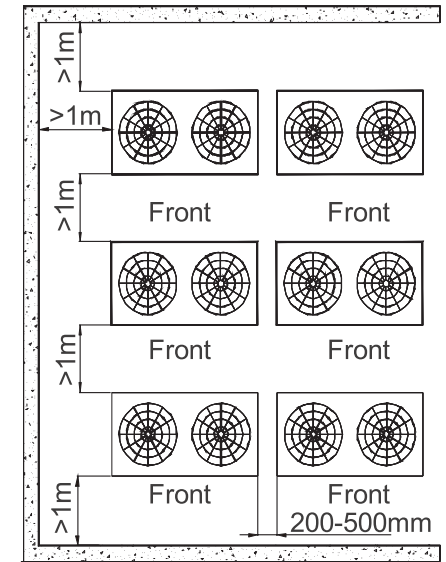
Outdoor unit typical concrete base structure design

Outdoor unit

Φ10 Expansion bolt
Rubber anti-vibration pads
Solid ground / surface

Concrete base h=200mm

200mm

≥80mm

B
A
C
D

15 x 23 U-shape hole
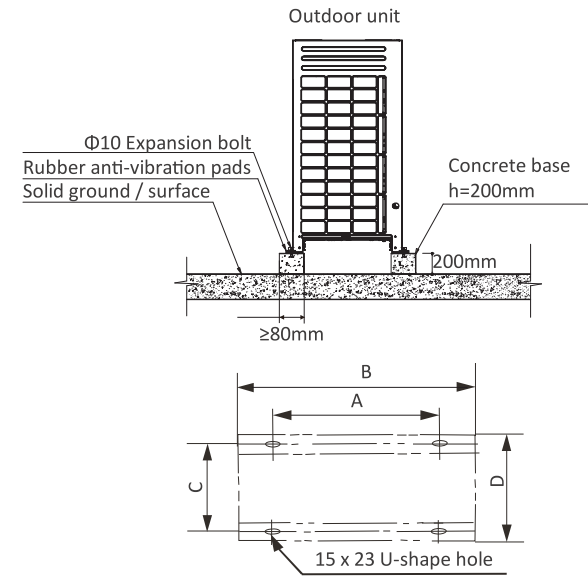
Dimension(mm)	8-18HP	20-24HP	26-32HP
A	830	1120	1455
B	960	1250	1585
C	736	736	736
D	765	765	765

Side Discharge Series
Heat Pump&Cooling Only

Features
Wide Application Range Specifications

| Wide range of outdoor units | | | | | | | | | | | |

HP KW Btu/hr		4	5	6		7	8	10	12
		12	14	16	17.5	20	22.4	28	33.5
		40.9	47.8	52.9	60	68.2	76.4	95.5	114.3
Air Cooled - Heat Pump	220-240V/1Ph/50Hz	●	●	●					
	380-415V/3Ph/50Hz					●	●	●	●
Air Cooled - Cooling Only	380-415V/3Ph/50					●	●	●	

● Single unit

Side Discharge – Heat Pump 1 Phase

■ Specifications 50Hz				
HP		4	5	6
Model		38VR004H112016	38VR005H112016	38VR006H112016
Power supply	V/N/Hz	220-240/1/ 50		
Cooling[1] Capacity	kW	12.0	14.0	16
	kBtu/h	40.9	47.8	52.9
Heating[2] Capacity	kW	14.0	16.0	18.0
	kBtu/h	47.8	54.6	61.4
Connectable indoor unit	Max. quantity	7	8	9
Compressor	Type	DC inverter		
	Quantity	1		
Fan motor	Type	DC		
	Quantity	1		
Refrigerant	Type	R410A		
	Factory charge kg	3	3.4	3.8
Pipe connections[3]	Liquid pipe mm	Φ9.53		Φ9.53
	Gas pipe mm	Φ15.9		Φ19.1
Airflow rate	m³/h	5000	5400	5200
Sound pressure level	dB(A)	56	56	56
Net dimensions (W×H×D)	mm	950×840×426	1040×865×523	
Net weight	kg	83	90.4	94.4
Operating temperature range	°C	Cooling: -5~55, Heating: -15~27		

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Sound pressure level is measured at a position 1m in front of the unit and 1m above the floor in a semi-anechoic chamber.

Side Discharge-Heat Pump 3 Phase

| HP			7	8	10	12
Model			38VR007H119016	38VR008H119016	38VR010H119016	38VR012H119016
Power supply		V/N/Hz	380-415/3/50			
Cooling[1]	Capacity	kW	20	22.4	28	33.4
		kBtu/h	68.2	76.4	97.2	114.3
Heating[2]	Capacity	kW	20	22.4	28.5	33.5
		kBtu/h	68.2	76.4	97.2	114.3
Connected indoor unit	Maximum quantity		11	13	16	20
Compressor	Type		DC inverter			
	Quantity		1			
Fan motors	Type		DC			
	Quantity		2			
Refrigerant	Type		R410A			
	Factory charge	kg	6.5	6.5	6.5	8
Pipe connections[3]	Liquid pipe	mm	Φ12.7			
	Gas pipe	mm	Φ19.1		Φ22.2	
Airflow rate		m³/h	9000	9000	11000	11300
Sound pressure level[4]		dB(A)	58	58	60	61
Net dimensions (W×H×D)		mm	1120×1558×528			
Net weight		kg	143		144	157
Operating temperature range	Cooling	℃	-5 to 55			
	Heating	℃	-20 to 24			

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20℃ DB; outdoor temperature 7℃ DB, 6℃ WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Diameters given are those of the unit's stop valves.
4. Sound pressure level is measured at a position 1m in front of the unit and 1m above the floor in a semi-anechoic chamber.

Side Discharge – Cooling Only 3 Phase

HP			7	8	10
Model			38VR007C119016	38VR008C119016	38VR010C119016
Power supply		V/N/Hz	380-415/3/50		
Cooling[1]	Capacity	kW	20.0	22.4	28.0
		kBtu/h	68.2	76.4	95.5
Connected indoor unit	Maximum Quantity		10	13	16
Compressor	Type		DC inverter		
	Quantity		1		
Fan	Quantity		2		
Refrigerant	Type		R410A		
	Factory charge	kg	3.9		
Pipe connections	Liquid pipe	mm	Φ9.53		
	Gas pipe	mm	Φ19.1		
Airflow rate		m³/h	7150		
Sound pressure level[2]		dB(A)	57	57	59
Net dimensions (W×H×D)		mm	902×1327×370		
Net weight		kg	115		
Operating temperature range		℃	-5 ~ 55		

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Sound pressure level is measured at a position 1m in front of the unit and 1m above the floor in a semi-anechoic chamber.

Dimension

Side Discharge – Heat Pump

12kW

14-16kW

20/22.4/28/33.5kW

Side Discharge – Cooling Only

20/22.5/28kW
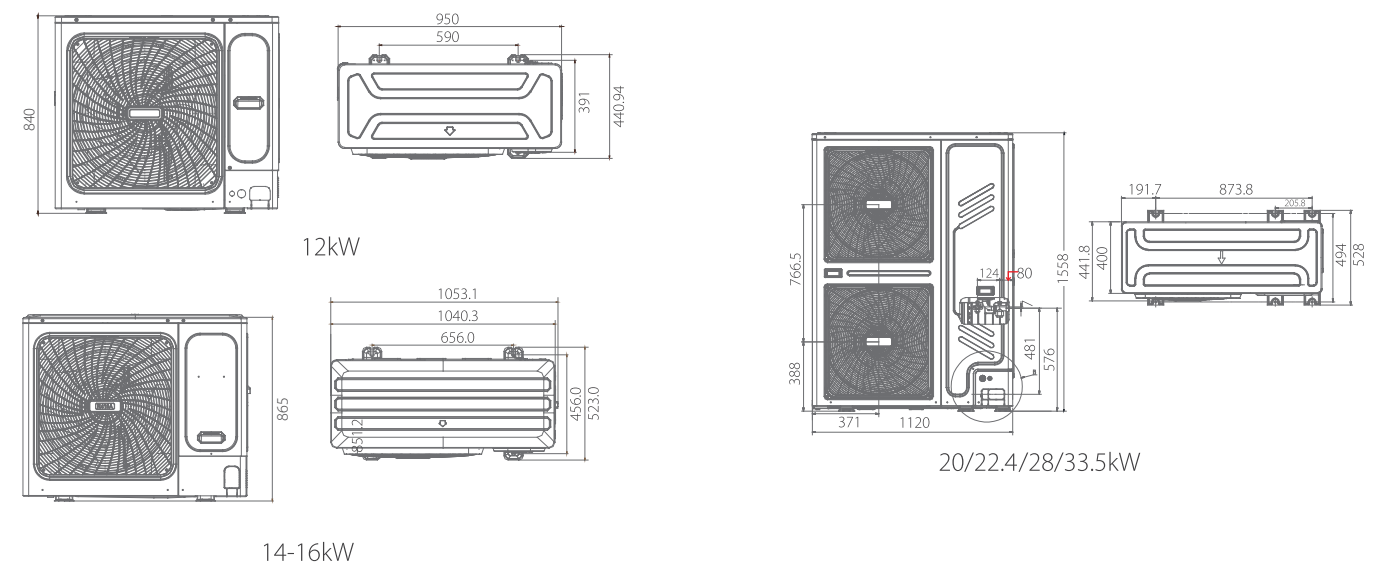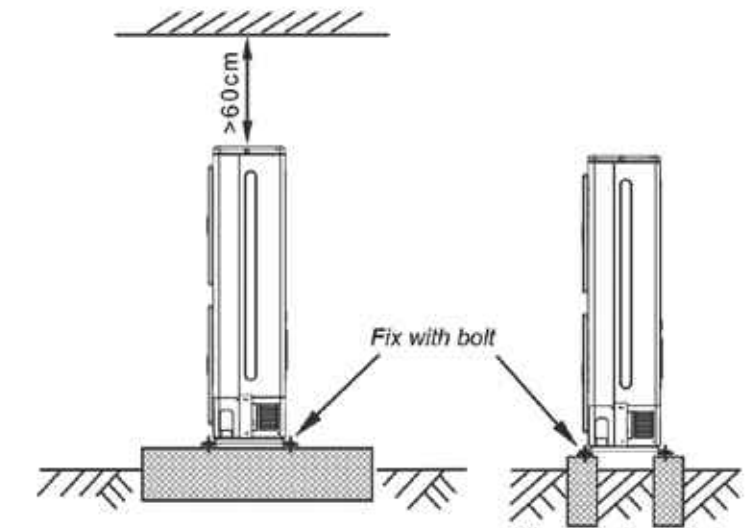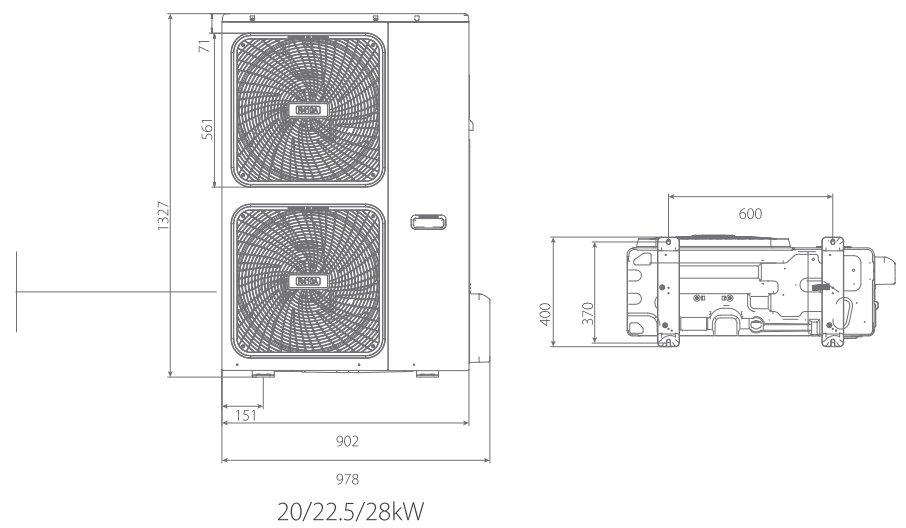
- Single unit installation
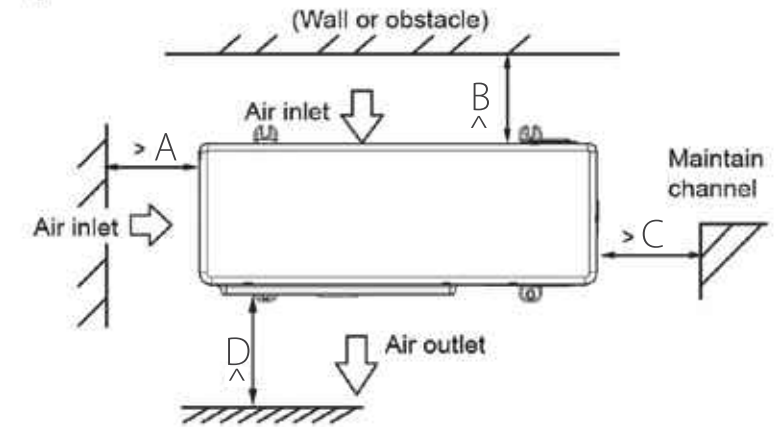
- Parallel connect the two units or above
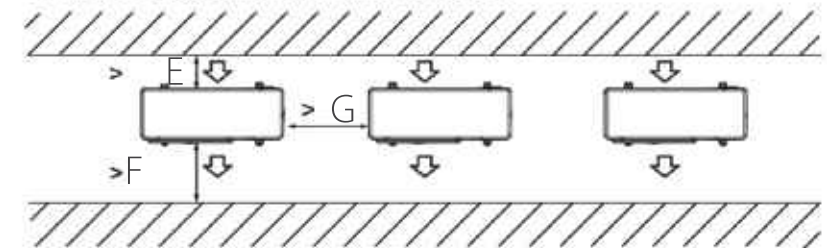
- Parallel connect the front with rear sides
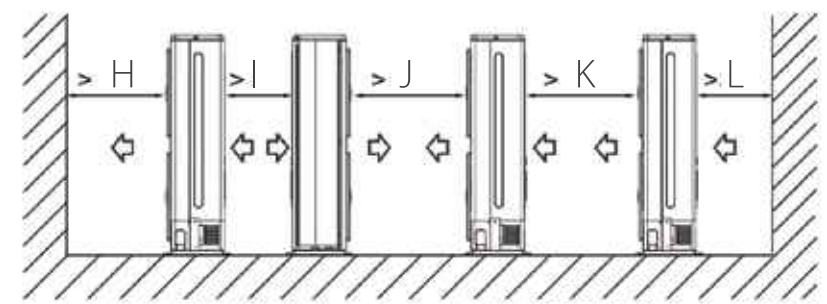
Model (kW)	A	B	C	D	E	F	G	H	I	G	K	L
8-18kW	300	300	600	2000	300	2000	600	2000	500	3000	3000	300
20-33.5kW	300	300	600	3000	300	3000	600	3000	1000	6000	4000	300

2nd Generation VRF
INDOOR UNITS

Indoor Unit Functions

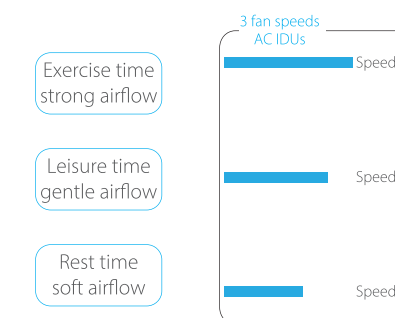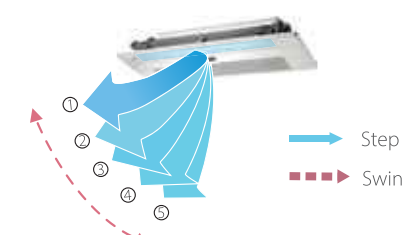| Category	Function	Functions	One-way Cassette	Two-way Cassette	Compact Four-way Cassette	Four-way Cassette	Medium Static Pressure Duct	High Static Pressure Duct	Wall Mounted	Ceiling & Floor	Floor Standing	Fresh Air Processing Unit
Comfort	Cold air prevention	When starting to warm up, the fan speed is automatically adjusted according to coil temperature to prevent cold air discharge. After warming up, fan speed is set as desired	●	●	●	●	●	●	●	●	●	●
	Quiet operation	All indoor units are quiet operation	●	●	●	●	●	●	●	●	●	●
	Auto cooling-heating changeover[1]	Automatically selects cooling or heating mode to achieve the set temperature	●	●	●	●	●	●	●	●	●	●
	Digital display on/off	Indoor unit displays can be shut off at night, creating a better environment for rest	●	●	●	●	●	●	●	●	●	●
	Buzzer sound on/off	The buzzer sound of the indoor unit can be turned off to create a quieter environment	●	●	●	●	●	●	●	●	●	●
	Heat stratification compensation	The heat stratification compensation function in HEAT mode obtains a value that more closely reflects the true temperature of the air conditioned space	●	●	●	●	●	●	●	●	●	●
	Two thermistors control	The indoor temperature can be checked using the thermistor in the remote controller as well as from the indoor unit	●	●	●	●	●	●	●	●	●	●
	0.5℃/1℃ setting temperature adjustment	Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control	●	●	●	●	●	●	●	●	●	●
Health	Air filter	Removes airborne dust particles to ensure a steady supply of clean air	●	●	●	●	●	●	●	●	●	●
	Fresh air intake	A reserved outside air intake port allows outdoor air to be introduced directly into the unit	● (45-71)	●	●	●	●	×	×	×	×	●
	Dirty filters indicator signal	The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter	●	●	●	●	●	●	●	●	●	●
Air flow	Vertical swing	Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution	5 steps setting+auto	5 steps setting+auto	5 steps setting+auto	5 steps setting+auto	×	×	5 steps setting+auto	5 steps setting+auto	×	×
	Horizontal swing	Possibility to select automatic horizontal moving of the air discharge louvre, for uniform air flow and temperature distribution	Manually set fixed angle+auto (45-71)	×	×	×	×	×	×	Manually set fixed angle+auto	×	×
	Fan speed steps	3 or 7 fan speeds can be selected to optimize comfort levels	3+auto	3+auto	3+auto	3+auto	3+auto	3+auto	7+auto	3+auto	7+auto	7+auto
	Individual louver control[2]	Individual louver control via the wired remote controller makes it simple to fix the position of each flap individually	×	×	×	● (360° panel)	×	×	×	×	×	×
	Auto fan speed	Automatically controls rotation speed of fan depending on indoor load to achieve efficiency and comfort simultaneously	●	●	●	●	●	●	●	●	●	●
	Soft wind mode	Supply air against the ceiling to create windless environment	×	×	×	●	×	×	×	×	×	×
	Adjustable ESP	ESP can be adjusted over a wide range to ensure constant airflow	×	×	×	×	●	●	×	×	●(Concealed) ×(Exposed)	●
Remote control & timer	Timer	Timer can be set to start and stop operation anytime on a daily or weekly basis	●	●	●	●	●	●	●	●	●	●
	Infrared remote control	Infrared remote control with LCD to remotely control your indoor unit	●	●	●	●	●	●	●	●	●	●
	Wired remote control	Wired remote control to remotely control your indoor unit	●	●	●	●	●	●	●	●	●	●
	Group control	Up to 16 indoor units can be in a group control system	●	●	●	●	●	●	●	●	●	●
	Centralized control	Centralized control to control several indoor units from one single point	●	●	●	●	●	●	●	●	●	●
	℃/℉ setting	Temperature unit ℃ or ℉ can be set according to your usage habits	●	●	●	●	●	●	●	●	●	●
Other functions	Energy saving[3]	Using Infrared Sensor Controller automatically turns indoor units on or off upon sensing that the room is occupied or unoccupied,ensuring climate control whilst minimizing energy consumption	●	●	●	●	●	●	●	●	●	●
	Auto-restart	The unit restarts automatically at the original settings after power failure	●	●	●	●	●	●	●	●	●	●
	Self-diagnosis	Simplifies maintenance by indicating system faults or operating anomalies	●	●	●	●	●	●	●	●	●	●
	Drain pump	Facilitates condensation draining from the indoor unit	●	●	●	●	●	○	×	×	×	○
	Fan only	The air conditioner can be used as fan, blowing air without cooling or heating	●	●	●	●	●	●	●	●	●	●
	Long-distance on/off function	Long-distance startup or shutoff the system	○	○	○	○	○	○	○	○	○	○
	Long-distance alarm function	Long-distance alarm when an error occurs	○	○	○	○	○	○	○	○	○	○
	Multiple protections	Multiple protections make the unit run more reliably	●	●	●	●	●	●	●	●	●	●
	Easy cleaning	The unit is easy cleaning thanks to the rational design	●	●	●	●	●	●	●	●	●	●

Note:
●: equipped as standard; ○: customization option; ×: without this function
1. Please contact your local dealer for detailed information.
2. The indoor units must be customized before order so as to use 360° panel with individual louver control,inproper combinations may cause malfunction.
3. Energy saving function needs to be realized with the infrared sensor controller.

One-way Cassette

Meeting corner location requirements and at the same time maintaining the required visual appearance.

Key Features

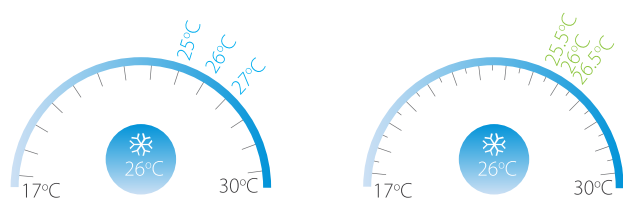| One-way Cassette	
Comfort	
Quiet operation	●
0.5℃/1℃ setting temperature adjustment	●
Digital display on/off	●
Buzzer sound on/off	●
Health	
Fresh air intake	●(45 to 71)
Dirty filters indicator signal	●
Air flow	
Multiple fan speeds	3+auto
Multiple steps vertical swing	5+auto
Easy installation	
Minimized height	●
High-lift drain pump	Rated head: 1200mm Raise height: 750mm

Note:
●: equipped as standard

COMFORT

Quiet Operation

The One-way Cassette's optimized, low resistance air outlets reduce noise levels to as low as 22dB(A).

22dB(A).

0.5℃/1℃ Setting Temperature Adjustment

Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control.

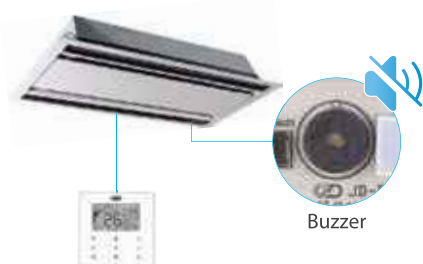### Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

Digital display

Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.
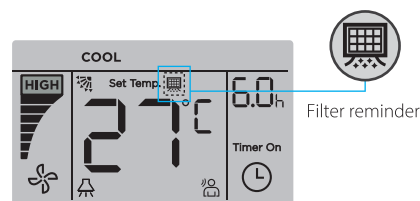
Buzzer

HEALTH

Fresh Air Intake

A reserved outside air intake port allows outdoor fresh air to be introduced directly into the unit, negating the need for a separate ventilation system.
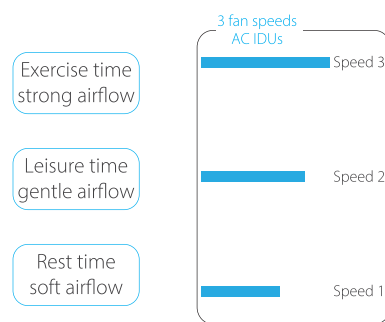
Dirty Filters Indicator Signal

The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.

Filter reminder

AIR FLOW

Multiple Fan Speeds

AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.

Exercise time strong airflow
Leisure time gentle airflow
Rest time soft airflow

3 fan speeds AC IDUs
Speed 3
Speed 2
Speed 1

Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs.

Step
Swing

EASY INSTALLATION

Easy Installation

The slim, compact design make the One-way Cassette ideal for interiors with limited ceiling space. Models 18 to 36 are just 153mm high whilst models 45 to 71 are 189mm high.
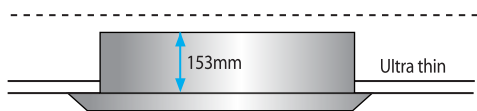
153mm   Ultra thin

High-lift Drain Pump

A drain pump with a 750mm raise height is fitted as standard, simplifying installation of the drain piping.

750mm
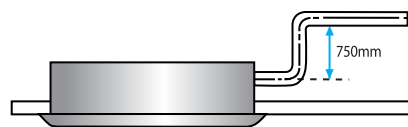
Specifications

50Hz Series

Model			40VZ005H 11200013	40VZ006H 11200013	40VZ009H 11200013	40VZ012H 11200013	40VZ018H 11200013	40VZ024H 11200013	40VZ028H 11200013
Power supply			1 phase, 220-240V, 50Hz						
Cooling[1]	Capacity	kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1
	Input	W	41	41	41	41	48	48	60
Heating[2]	Capacity	kW	2.2	2.6	3.2	4	5	6.3	8
	Input	W	41	41	41	41	48	48	60
Indoor fan motor	Type		AC						
	Quantity		1						
Airflow rate (H/M/L)		m³/h	523/404/275	523/404/275	573/456/315	573/456/315	693/600/476	792/688/549	933/749/592
Sound pressure level (H/M/L)[3]		dB(A)	37/34/30	37/34/30	39/37/34	39/37/34	41/39/35	42/40/36	44/41/37
Refrigerant type			R410A						
Indoor unit	Dimension[4] (WxHxD)	mm	1054×153×425				1275×189×450		
	Packing (WxHxD)	mm	1155×245×490				1370×295×505		
	Net/Gross weight	kg	12.5/16		13/16.5		18.5/22.8	18.8/23.1	19.5/23.8
Panel	Dimension (WxHxD)	mm	1180×25×465				1350×25×505		
	Packing (WxHxD)	mm	1232×107×517				1410×95×560		
	Net/Gross weight	kg	3.5/5.2				4/5.4		
Pipe connections	Liquid pipe	mm	Φ6.35				Φ9.53		
	Gas pipe	mm	Φ12.7				Φ15.9		
	Drain pipe	mm	OD Φ25						

Two-way Cassette

Compact and lightweight two-way airflow, perfect for limited ceiling space applications.

Key Features

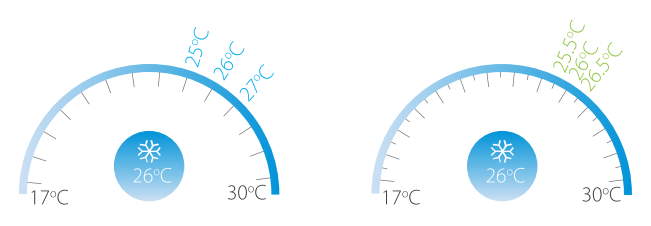| Two-way Cassette		
Comfort	Quiet operation	●
	0.5℃/1℃ setting temperature adjustment	●
	Digital display on/off	●
	Buzzer sound on/off	●
Health	Fresh air intake	●
	Dirty filters indicator signal	●
Air flow	Multiple fan speeds	3+auto
	Multiple steps vertical swing	5+auto
Easy installation	Minimized height	●
	High-lift drain pump	Rated head: 1200mm Raise height: 750mm

Note:
●: equipped as standard

COMFORT

Quiet Operation

The Two-way Cassette's optimized, low resistance air outlets reduce noise levels to as low as 24dB(A).

22dB(A).

0.5℃/1℃ Setting Temperature Adjustment

Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control.

17℃ 26℃ 30℃   17℃ 26℃ 30℃

Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

Digital display

Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.
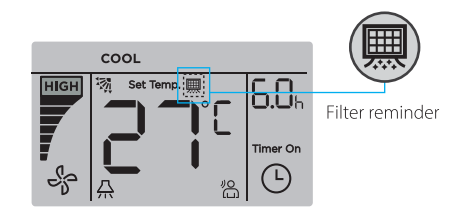
Buzzer

HEALTH

Fresh Air Intake

A reserved outside air intake port allows outdoor fresh air to be introduced directly into the unit, negating the need for a separate ventilation system.

Dirty Filters Indicator Signal

The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.
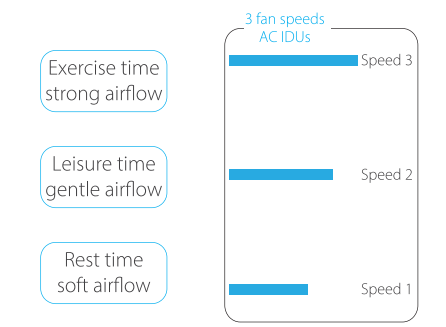
Filter reminder

AIR FLOW

Multiple Fan Speeds

AC Series supplies 3 indoor fan speeds to meet the needs of different indoor conditions.

Exercise time strong airflow

Leisure time gentle airflow

Rest time soft airflow

3 fan speeds AC IDUs
Speed 3
Speed 2
Speed 1

Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs.
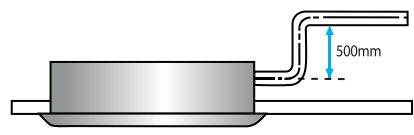
Step
Swing
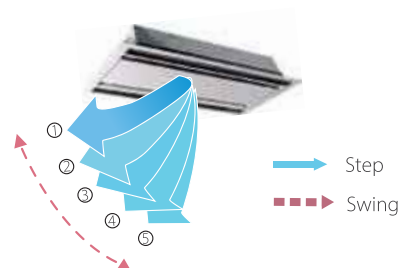
EASY INSTALLATION

High Airflow

A high airflow rate ensures even airflow and temperature throughout the room, even in high ceiling installations.

Easy Installation

The slim, compact design make the Two-way Cassette ideal for interiors with limited ceiling space.
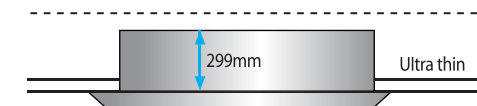
299mm   Ultra thin

High-lift Drain Pump

A drain pump with a 750mm raise height is fitted as standard, simplifying installation of the drain piping.

750mm

Specifications
50Hz Series

Model			40VT006H 10200013	40VT009H 10200013	40VT012H 10200013	40VT018H 10200013	40VT024H 10200013	40VT028H 10200013
Power supply			1 phase, 220-240V, 50Hz					
Cooling[1]	Capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Input	W	57	57	60	92	108	154
Heating[2]	Capacity	kW	2.6	3.2	4	5	6.3	8
	Input	W	57	57	60	92	108	154
Indoor fan motor	Type		AC					
	Quantity		1					
Refrigerant type			R410A					
Airflow rate (H/M/L)		m³/h	654/530/410	654/530/410	725/591/458	850/670/550	980/800/670	1200/1000/770
Sound pressure level (H/M/L)[3]		dB(A)	33/29/24	36/32/29	36/32/29	39/35/30	39/35/30	44/40/34
Indoor unit	Dimension[4] (WxHxD)	mm	1172×299×591					
	Packing (WxHxD)	mm	1355×400×675					
	Net/Gross weight	kg	34/42.5				36/44.5	
Panel	Dimension (WxHxD)	mm	1430×53×680					
	Packing (WxHxD)	mm	1525×130×765					
	Net/Gross weight	kg	10.5/15					
Pipe connections	Liquid pipe	mm	Φ6.35				Φ9.53	
	Gas pipe	mm	Φ12.7				Φ15.9	
	Drain pipe	mm	OD Φ32					

Compact Four-way Cassette

Compact design allows installation in shallow ceilings.

Key Features

Compact Four-way Cassette	
Comfort	Quiet operation	●
	0.5℃/1℃ setting temperature adjustment	●
	Digital display on/off	●
	Buzzer sound on/off	●
Health	Fresh air intake	●
	Dirty filters indicator signal	●
Air flow	360° airflow	●
	Multiple fan speeds	3+auto
	Multiple steps vertical swing	5+auto
Easy installation	Compact size	●
	High-lift drain pump	Rated head: 1000mm Raise height: 500mm

Note:
●: equipped as standard; ✕: without this function

COMFORT

Quiet Operation

The Compact Four-way Cassette's optimized, low resistance air outlets reduce noise levels to as low as 22dB(A).

22dB(A).

0.5℃/1℃ Setting Temperature Adjustment

Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control.

25℃
26℃
27℃

17℃ 26℃ 30℃

25.5℃
26℃
26.5℃

17℃ 26℃ 30℃
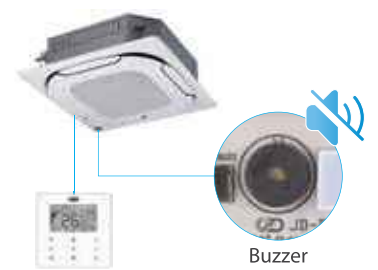
Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

Digital display

Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.

Buzzer

HEALTH

Fresh Air Intake

A reserved outside air intake port allows outdoor fresh air to be introduced directly into the unit, negating the need for a separate ventilation system.

Dirty Filter

The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.

COOL
HIGH
Set Temp.
27℃
6.0h
Timer On
Filter reminder

AIR FLOW

360° Airflow

The Compact Four-way Cassette's 360 ° air outlets provide strong airflow circulation to cool or heat every corner of a room and evenly control temperature.

Multiple Fan Speeds

AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.

3 fan speeds
AC IDUs

Exercise time strong airflow — Speed 3

Leisure time gentle airflow — Speed 2

Rest time soft airflow — Speed 1

Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs.

Step
Swing

Specifications

50Hz Series
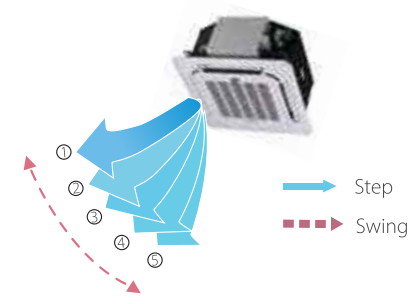
EASY INSTALLATION

Compact Size

The slim and compact body has reduced the restriction enables the Compact Four-way Cassette successful installation in various ceiling spaces.

570
260
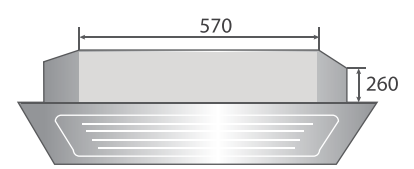
High-lift Drain Pump

A drain pump with a 500mm raise height is fitted as standard, simplifying installation of the drain piping.

500mm

Four-way Cassette

360° airflow for immediate, equal distribution of wider-angle cooling and heating, idea for standard ceilings.

Key Features

Model			40VX006H11200013	40VX009H11200013	40VX012H11200013	40VX018H11200013
Power supply			1 phase, 220-240V, 50Hz			
Cooling[1]	Capacity	kW	2.2	2.8	3.6	4.5
	Input	W	50	50	56	56
Heating[2]	Capacity	kW	2.4	3.2	4	5
	Input	W	50	50	56	56
Indoor fan	Type		AC			
motor	Quantity		1			
Refrigerant type			R410A			
Airflow rate (H/M/L)		m³/h	414/313/238	414/313/238	521/409/314	521/409/314
Sound pressure level (H/M/L)[3]		dB(A)	36/33/23	36/33/23	42/36/29	42/36/29
Indoor unit	Dimension[4] (WxHxD)	mm	570×260×630			
	Packing (WxHxD)	mm	675×285×675			
	Net/Gross weight	kg	17/20		18.5/21.5	
Panel	Dimension (WxHxD)	mm	647×50×647			
	Packing (WxHxD)	mm	715×123×715			
	Net/Gross weight	kg	2.5/4.5			
Pipe connections	Liquid pipe	mm	Φ6.35			
	Gas pipe	mm	Φ12.7			
	Drain pipe	mm	ODΦ25			

Four-way Cassette		
Comfort	Quiet operation	●
	0.5℃/1℃ setting temperature adjustment	●
	Digital display on/off	●
	Buzzer sound on/off	●
Health	Air filter	●
	Fresh air intake	●
	Dirty filters indicator signal	●
Air flow	360° airflow	●
	Individual louver control	○
	Soft wind	●
	Multiple fan speeds	3+auto
	Multiple steps vertical swing	5+auto
Easy installation	Compact size	●
	High ceiling installation	●
	High-lift drain pump	Rated head: 1200mm Raise height: 750mm

Note:
●: equipped as standard; ○: customization option

COMFORT

0.5℃/1℃ Setting Temperature Adjustment

Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control.
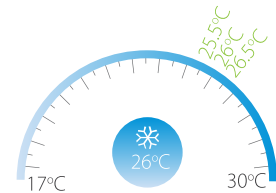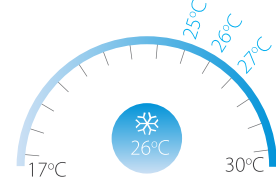
Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

Digital display

Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.

Buzzer

HEALTH

Optional G3-class Air Filter

The DC Four-way Cassette supports 30Pa external static pressure for the G3-class filter installation. Filtering effect of the G3-class filter reaches up to 80%-90% against coarse dust (particle size > 10 µm), creating a cleaner living environment.

The optional filter comply with EN779:2012

Note: This function is available for 360° panel only.

Ionizer Sterilization

The powerful Ionizer protects you from bad odors and harm-ful bacteria. The circulating sterilization rate is over 96%.
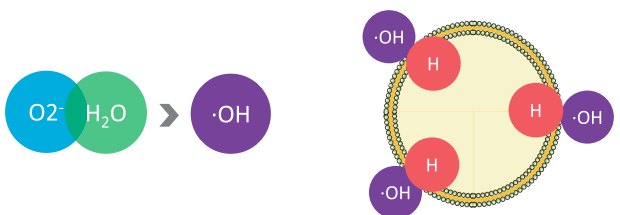
1.Negative ions combine with water molecules to form OH radicals

2.OHradical extraction of hydrogen from bacterial proteins
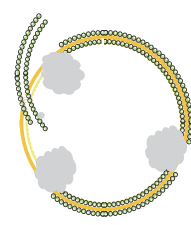
3.Components of bacterial tissues are destroyed and become ineffective (realize sterilization)
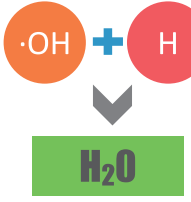
4. OH radicals eventually reduce to natural water molecules (pollution-free)

Dirty Filters Indicator Signal

The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.
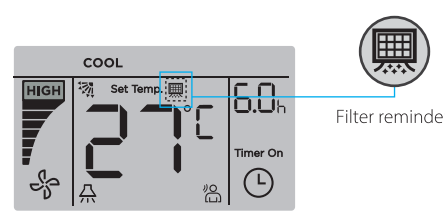
Filter reminder

AIR FLOW

360° Airflow

New design, round air flow path ensures uniform air flow and temperature distribution.

Individual louver control*

The Individual louver control can control the motors sepa-rately, making it possible to control all four louvers inde-pendently.

*The indoor units must be customized before order so as to use 360° panel with individual louver control,inproper combinations may cause malfunction.

Soft Wind Mode

In soft wind mode, supply air against the ceiling to create windless environment, more comfort.

Multiple Fan Speeds

The DC Series comes with 7 indoor fan speed options and AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.

Exercise time strong airflow

Leisure time gentle airflow

Rest time soft airflow

3 fan speeds AC IDUs

Speed 3
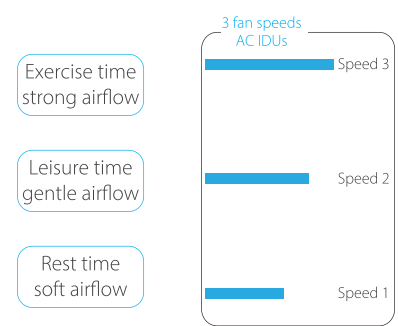
Speed 2

Speed 1

EASY INSTALLATION

High Ceiling Installation

The Four-way Cassette reserves a super high fan speed for high ceiling installation, it can provide power full cooling and heating up to 4.2m in height from floor.
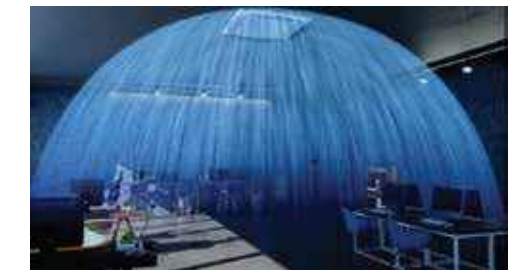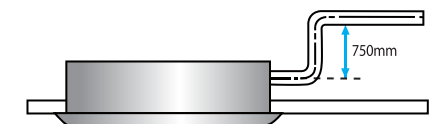

Compact Size

The height of models 28 to 80 are just 230mm whilst models 90 to 160 are 300mm, making the Four-way Cassette idea for standard ceilings.
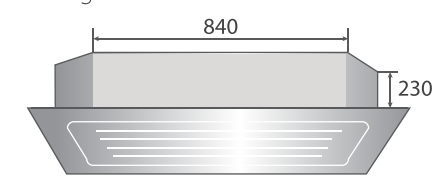
840

230

High-lift Drain Pump

A drain pump with a 750mm raise height is fitted as standard, simplifying installation of the drain piping.
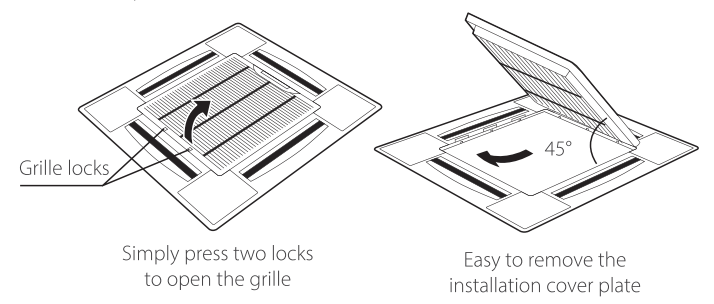

750mm

Sub Duct

Connecting a sub-duct enables an indoor unit to be used to also cool a smaller nearby space.

Convenient Panel Installation

The user-friendly design makes the panels very easy to install and simplifies field work.

Grille locks

45°

Simply press two locks to open the grille

Easy to remove the installation cover plate

Specifications

50Hz Series

Model			40VK009H11200013	40VK012H11200013	40VK018H11200013	40VK024H11200013	40VK028H11200013
Power supply			1 phase, 220-240V, 50Hz				
Cooling[1]	Capacity	kW	2.8	3.6	4.5	5.6	7.1
	Power input	W	80	80	88	88	88
Heating[2]	Capacity	kW	3.2	4	5	6.3	8
	Power input	W	80	80	88	88	88
Indoor fan motor	Type		AC				
	Quantity		1				
Refrigerant type			R410A				
Airflow rate (H/M/L)		m³/h	764/638//554	764/638//554	905/740//651	905/740//651	950/767//663
Sound pressure level (H/M/L)[3]		dB(A)	32/31/30	32/31/30	36/34/33	36/34/33	38/36/35
Indoor unit	Dimension[4] (WxHxD)	mm	840×230×840				
	Packing (WxHxD)	mm	955×260×955				
	Net/Gross weight	kg	21.5/26.7		23.7/28.9		
Panel	Dimension (WxHxD)	mm	950×50×950				
	Packing (WxHxD)	mm	1035×89×1035				
	Net/Gross weight	kg	5.8/7.9				
Pipe connections	Liquid pipe	mm	Φ6.35			Φ9.53	
	Gas pipe	mm	Φ12.7			Φ15.9	
	Drain pipe	mm	ODΦ32				

Model			40VK032H11200013	40VK036H11200013	40VK040H11200013	40VK048H11200013	40VK056H11200013
Power supply			1 phase, 220-240V, 50Hz				
Cooling[1]	Capacity	kW	8	9	10	11.2	14
	Power input	W	110	140	165	165	176
Heating[2]	Capacity	kW	9	10	11.1	12.5	16
	Power input	W	110	140	165	165	176
Indoor fan motor	Type		AC				
	Quantity		1				
Refrigerant type			R410A				
Airflow rate (H/M/L)		m³/h	1200/1021/789	1332/1129/908	1651/1304/1127	1651/1304/1127	1658/1335/1130
Sound pressure level (H/M/L)[3]		dB(A)	42/39/37	43/39/38	45/42/40	45/42/40	46/41/39
Indoor unit	Dimension[4] (WxHxD)	mm	840×230×840	840×300×840			
	Packing (WxHxD)	mm	955×260×955	955×330×955			
	Net/Gross weight	kg	23.7/28.9	28.7/34.1	28.7/34.1	28.7/34.1	30.9/36.3
Panel	Dimension (WxHxD)	mm	950×50×950				
	Packing (WxHxD)	mm	1035×89×1035				
	Net/Gross weight	kg	5.8/7.9				
Pipe connections	Liquid pipe	mm	Φ9.53				
	Gas pipe	mm	Φ15.9				
	Drain pipe	mm	ODΦ32				

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20℃ DB; outdoor temperature 7℃ DB, 6℃ WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
4. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Medium Static Pressure Duct

Slim, compact design for limited space with duct distribution to the indoor space.

Key Features

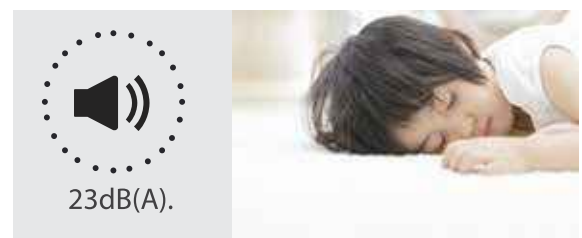| Medium Static Pressure Duct		
Comfort	Quiet operation	●
	0.5℃/1℃ setting temperature adjustment	●
	Digital display on/off	●
	Buzzer sound on/off	●
Health	Air filter	● ○ (G3-class)
	Innovative puro-air kit	●
	Fresh air intake	●
	Dirty filters indicator signal	●
Air flow	Adjustable ESP	×
	Multiple fan speeds	3+auto
Easy installation	Compact size	●
	Stylish air discharge panel	○ (17 to 71)
	Flexible air inlet port installation	●
	High-lift drain pump	Rated head: 1200mm Raise height: 750mm

Note:
●: equipped as standard;   ○: customization option;   ×: without this function

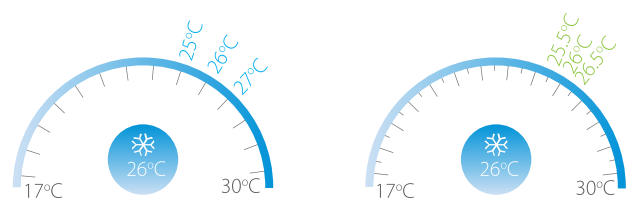# COMFORT

Quiet Operation

The Medium Static Pressure Duct indoor unit utilizes centrifugal blowers, reducing noise levels to as low as 23dB(A), and is an excellent choice for hotels and other noise-sensitive locations.
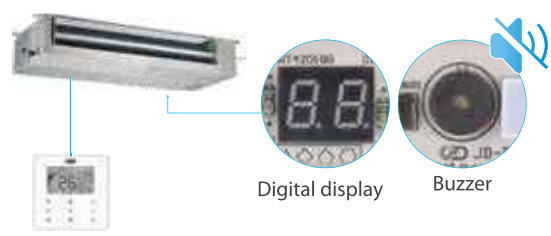
23dB(A).

0.5℃/1℃ Setting Temperature Adjustment

Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control.

Digital Display and Buzzer Sound On/Off

Indoor unit displays can be shut off at night and buzzer sound can be set off to not disturb the user, creating a better environment for rest.

Digital display   Buzzer

HEALTH

Optional G3-class Air Filter

G3-class filter is optional for Medium Static Pressure Duct installation. Filtering effect of the G3-class filter reaches up to 80%-90% against coarse dust (particle size > 10 µm), creating a cleaner living environment.

The optional filter comply with EN779:2012

Innovative Puro-air Kit

Puro-Air kit, powered by OSRAM's UVC lamps, can effectively kill bacteria, viruses and odors of indoor air to provide a healthy and safe indoor environment. It is also innovatively designed so that it could prevent UV damage to the eyes, skin, and respiratory tract.

Puro-Air Kit
Protectors of health and safety

OSRAM   From Germany -OSRAM quality UV light source

1st The world's first air conditioning sterilization product certification
Intertek **99.9%** Effective killing rate of white grape fungus
99.9% Effective killing rate of H1N1
98% Effective killing rate of natural bacteria

CE **Ozone –Free**
UV leakage-Free
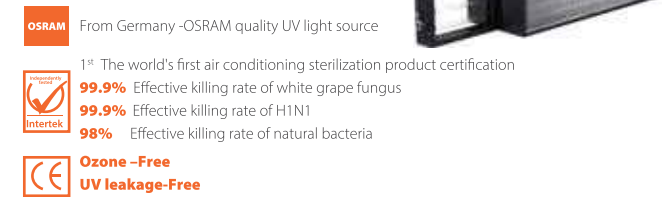
*The indoor unit needs to be customized in order to use the Puro-air Kit.

AIR FLOW

Static Pressure 10 Steps Control

Depending on the installation environment, Medium Static Pressure Duct is controlled the static pressure up to 10 steps via wired remote controller, for providing comfortable environment suitable for any environment.

Constant airflow discharge

10 steps static pressure control

Multiple Fan Speeds

AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.

Exercise time strong airflow

Leisure time gentle airflow

Rest time soft airflow
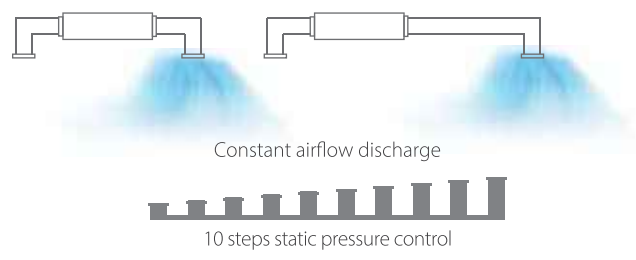
3 fan speeds AC IDUs
Speed 3
Speed 2
Speed 1
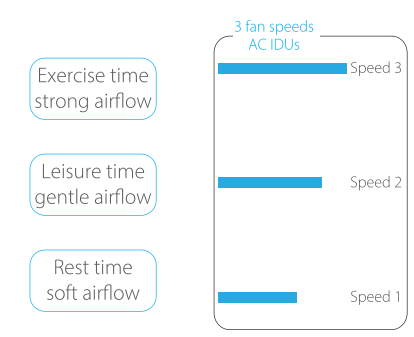
EASY INSTALLATION

Compact Size

Models 22 to 71 are just 210mm high whilst models 80 to 112 are 270mm high and model 140 to 160 are 300mm high.
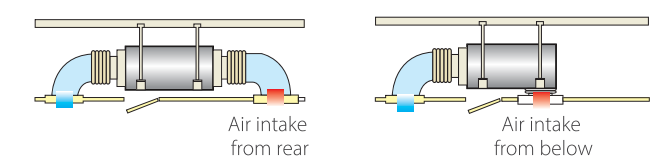
Min 25mm

210mm

Ceiling
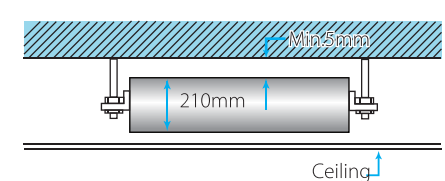
Stylish Air Discharge Panel

Stylish air discharge panel can be integrated with any decoration style (optional for models 17 to 71).

Flexible Air Inlet Port Installation

To provide the flexibility to adapt to differing installation situations, the air inlet may be positioned either on the underside or the rear of the unit.

Air intake from rear   Air intake from below

High-lift Drain Pump

A drain pump with a 750mm raise height is fitted as standard, simplifying installation of the drain piping.

750mm
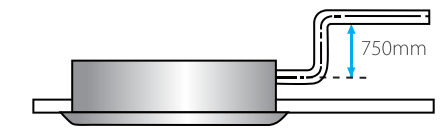
Specifications

50Hz Series

Model			42VD006H112013013	42VD009H112013013	42VD012H112013013	42VD018H112013013	42VD024H112013013
Power supply			1 phase, 220-240V,50Hz				
Cooling[1]	Capacity	kW	2.2	2.8	3.6	4.5	5.6
	Input	W	57	57	61	98	103
Heating[2]	Capacity	kW	2.6	3.2	4	5	6.3
	Input	W	57	57	61	98	103
Indoor fan motor	Type		AC				
	Quantity		1				
Refrigerant type			R410A				
Airflow rate (H/M/L)		m³/h	550/397/309	550/397/309	605/442/351	800/573/479	800/573/479
External static pressure (Std (Min~Max))		Pa	10(0~30)	10(0~30)	10(0~30)	10(0~30)	10(0~30)
Sound pressure level (H/M/L)[3]		dB(A)	31/24/21	31/24/21	35/28/24	36/29/26	36/29/27
Indoor unit	Dimension[4] (WxHxD)	mm	778x210x500			997x210x500	
	Packing (WxHxD)	mm	870×285×525			1115×285×525	
	Net/Gross weight	kg	17.5/20			22/25	
Piping connections	Liquid pipe	mm	Φ6.35				Φ9.53
	Gas pipe	mm	Φ12.7				Φ15.9
	Drain pipe	mm	OD Φ25				

Model			42VD028H 112013013	42VD032 H112003013	42VD036 H112003013	42VD040 H112003013	42VD048 H112003013	42VD052 H112003013	42VD054 H112003013
Power supply			1 phase, 220-240V,50Hz						
Cooling[1]	Capacity	kW	7.1	8	9	10	11.2	12.5	14
	Input	W	140	198	200	283	313	250	274
Heating[2]	Capacity	kW	8	9	10	11	12.5	13.5	15.5
	Input	W	140	198	200	283	313	250	274
Indoor fan motor	Type		AC						
	Quantity		1						
Refrigerant type			R410A						
Airflow rate (H/M/L)		m³/h	985/738/630	1345/1165/1013	1345/1165/1013	1800/1556/1400	1800/1556/1400	1905/1636/1400	1905/1636/1400
External static pressure (Std (Min~Max))		Pa	10(0~30)	20(10~50)	20(10~50)	40(10~80)	40(10~80)	40(10~100)	40(10~100)
Sound pressure level (H/M/L)[3]		dB(A)	36/30/27	45/40/37	45/40/37	48/42/38	48/42/38	48/43/39	48/43/39
Indoor unit	Dimension[4] (WxHxD)	mm	1218x210x500	1230×270×775				1290×300×865	1290×300×865
	Packing (WxHxD)	mm	1335x285x525	1355×350×795				1400×375×925	1400×375×925
	Net/Gross weight	kg	27.5/31	37.5/43				46.5/55.5	46.5/55.5
Piping connections	Liquid pipe	mm	Φ9.53						
	Gas pipe	mm	Φ15.9						
	Drain pipe	mm	OD Φ25						

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20℃ DB; outdoor temperature 7℃ DB, 6℃ WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
4. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
All specifications are measured at standard external static pressure.

High Static Pressure Duct

High external static pressure with long duct distribution, ideal for large sized spaces.
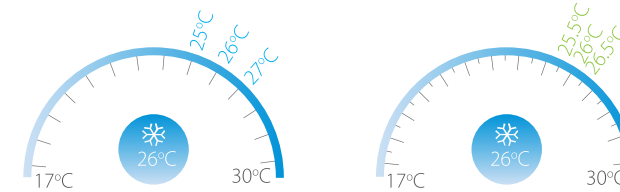
Key Features

High Static Pressure Duct	
Comfort	
Quiet operation	●
0.5℃/1℃ setting temperature adjustment	●
Digital display on/off	●
Buzzer sound on/off	●
Health	
Air filter	● ○ (G3-class)
Innovative puro-air kit	○
Dirty filters indicator signal	●
Air flow	
Adjustable ESP	×
Multiple fan speeds	3+auto
Easy installation	
Compact size	●
Flexible duct design	●
Double-skin drainage pan	●
High-lift water pump box	○

Note:
●: equipped as standard;   ○: customization option;   ×: without this function

COMFORT

0.5℃/1℃ Setting Temperature Adjustment

Set temperature can be adjusted in 0.5 ° C or 1 ° C steps, enabling precise comfort control.

Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

Digital display

Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.

Buzzer

HEALTH

Innovative Puro-air Kit

Puro-Air kit, powered by OSRAM's UVC lamps, can effectively kill bacteria, viruses and odors of indoor air to provide a healthy and safe indoor environment. It is also innovatively designed so that it could prevent UV damage to the eyes, skin, and respiratory tract.

Puro-Air Kit
Protectors of health and safety

OSRAM   From Germany -OSRAM quality UV light source

1st The world's first air conditioning sterilization product certification
99.9% Effective killing rate of white grape fungus
99.9% Effective killing rate of H1N1
98%   Effective killing rate of natural bacteria
Intertek

Ozone –Free
UV leakage-Free

*The indoor unit needs to be customized in order to use the Puro-air Kit.

Optional G3-class Air Filter

G3-class filter is optional for High Static Pressure Duct installation. Filtering effect of the G3-class filter reaches up to 80%-90% against coarse dust (particle size > 10 μm), creating a cleaner living environment.

The optional filter comply with EN779:2012

AIR FLOW

Static Pressure 20 Steps Control

Depending on the installation environment, High Static Pressure Duct is controlled the static pressure up to 20 steps via wired remote controller, for providing comfortable environment suitable for any environment.
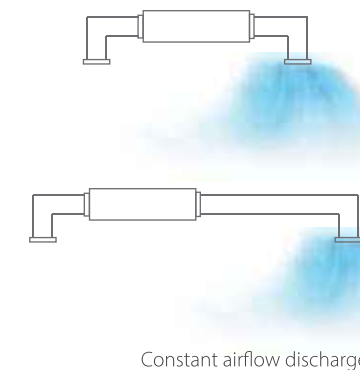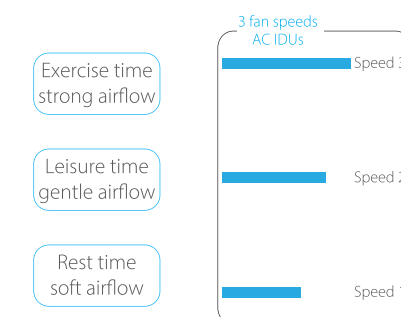
Constant airflow discharge

20 steps static pressure control

Multiple Fan Speeds

AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.

3 fan speeds
AC IDUs

Exercise time strong airflow — Speed 3
Leisure time gentle airflow — Speed 2
Rest time soft airflow — Speed 1

EASY INSTALLATION

Flexible Duct Design

High Static Pressure Duct supplies a wide static pressure from 30Pa to 400Pa which can support short to long duct with high ceiling air supply.

Air return

INDOOR UNIT

Air supply   Excellent coverage of rooms up to 6.5m in height
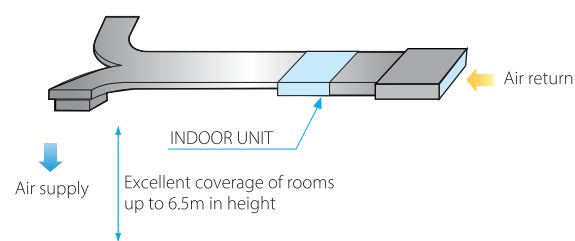
Double-skin Drainage Pan

A double-skin drainage pan provides double protection for ceilings.
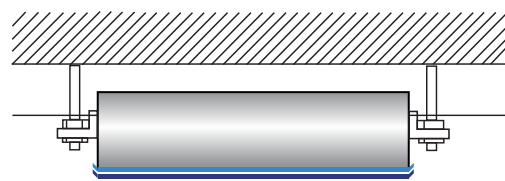
Specifications

50Hz Series

Model			42VD028H112011013	42VD032H112011013	42VD036H112011013	42VD048H112011013	42VD054H112011013	42VD055H112011013
Power supply			1 phase, 220-240V,50Hz					
Cooling[1]	Capacity	kW	7.1	8	9	11.2	14	16
	Input	W	263	263	423	524	724	940
Heating[2]	Capacity	kW	8	9	10	12.5	16	17
	Input	W	263	263	423	524	724	940
Indoor fan motor	Type		AC					
	Quantity		1					
Refrigerant type			R410A					
Airflow rate (SH/H/M/L)		m³/h	1395/1315/1248/1204	1361/1285/1217/1175	1801/1687/1643/1431	2063/1939/1716/1533	2965/2561/2207/1905	3417/2875/2587/2383
External static pressure (Std(Min~Max))		Pa	25(25~196)	37(37~196)	37(37~196)	50(50~196)	50(50~196)	50(50~196)
Sound pressure level (SH/H/M/L)[3]		dB(A)	48/46/44/43	48/46/45/43	52/49/47/45	52/49/47/46	53/50/48/46	54/52/50/48
Indoor unit	Dimension[4] (WxHxD)	mm	965×423×690				1322×423×691	
	Packing (WxHxD)	mm	1090×440×768				1436×450×768	
	Net/Gross weight	kg	45/50	45/50	46.5/52.4	48/53	67/73	67/73
Piping connections	Liquid pipe	mm	Φ9.53					
	Gas pipe	mm	Φ15.9					
	Drain pipe	mm	OD Φ25					

Model			42VD056H112011013	42VD058H112011013	42VD060H112011013	42VD140H112011013	42VD160H112011013	42VD190H112011013
Power supply			1 phase, 220-240V,50Hz					
Cooling[1]	Capacity	kW	20	25	28	40	45	56
	Input	W	1408	1408	1408	2100	2100	2800
Heating[2]	Capacity	kW	22.5	26	31.5	45	50	63
	Input	W	1408	1408	1408	2100	2100	2800
Indoor fan motor	Type		AC					
	Quantity		2			3		
Refrigerant type			R410A					
Airflow rate (SH/H/M/L)		m³/h	4600/3765/2900/2100			7500/5800/4310/3090	7500/5800/4310/3090	8400/5859/4300/3100
External static pressure (Std(Min~Max))		Pa	250(50~300)			300(50~400)		
Sound pressure level (SH/H/M/L)[3]		dB(A)	57/56/52/47			60/58/54/49	60/58/54/49	61/56/51/46
Indoor unit	Dimension[4] (WxHxD)	mm	1454×515×931			2010×680×905		
	Packing (WxHxD)	mm	1509×550×990			2095×800×964		
	Net/Gross weight	kg	124/135			202/233	202/233	202/233
Piping connections	Liquid pipe	mm	Φ12.7			Φ15.9		
	Gas pipe	mm	Φ22.2			Φ28.6		
	Drain pipe	mm	OD Φ32					

Notes:
1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
4. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
All specifications are measured at standard external static pressure.

Wall Mounted

Stylish panel, ideal for rooms with no or narrow ceilings.

Key Features

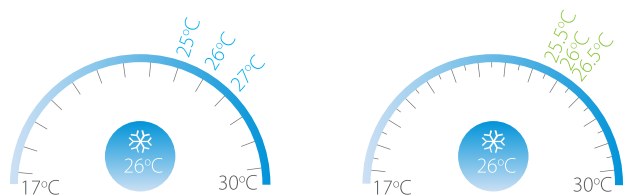| Wall Mounted		
Comfort	Quiet operation	●
	0.5°C/1°C setting temperature adjustment	●
	Digital display on/off	●
	Buzzer sound on/off	●
Health	Air filter	●
	Dirty filters indicator signal	●
Air flow	Multiple fan speeds	7+auto
	Multiple steps vertical swing	5+auto
Easy installation	Compact size	●
	Exposed installation, no need ceilings	●
	Flexible pipe outlet direction	●

Note:
●: equipped as standard

COMFORT

Quiet Operation

The minimum noise level of Wall Mounted is as low as 29dB(A), idea for hotels and other noise-sensitive locations.

29dB(A).

0.5℃/1℃ Setting Temperature Adjustment

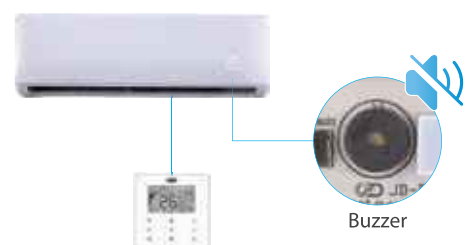Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control.

25℃
26℃
27℃
26℃
17℃   30℃

25.5℃
26℃
26.5℃
26℃
17℃   30℃

Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

Digital display

Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.

Buzzer

HEALTH

Dirty Filters Indicator Signal

The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.

COOL
HIGH   Set Temp.   6.0h
27℃
Timer On

Filter reminder
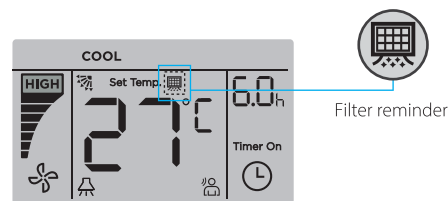
AIR FLOW

Multiple Fan Speeds

Both DC and AC Series come with 7 indoor fan speed options to meet the needs of different indoor conditions.

Rest time
soft airflow

Leisure time
gentle airflow

Exercise time
strong airflow

Fan   Fan   Fan   Fan   Fan   Fan   Fan
speed 1   speed 2   speed 3   speed 4   speed 5   speed 6   speed 7

Soft airflow   Strong airflow

Multiple Steps Vertical Swing

There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs.

① ② ③ ④ ⑤

→ Step
----▶ Swing
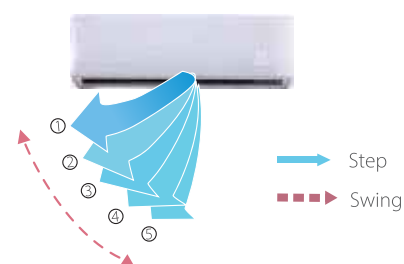
Wall Mounted Unit

Refrigerant outlet direction can be left, right or rear as the installation situation requires

Standard controller   Optional controller

WL-12B-CM   WL-12F-CM   WR-86KD-CM   WR-120G-CM

Model			42VH006H115000106	42VH009H115000106
Power supply			1 phase, 220-240V, 50/60Hz	
Cooling[1]	Capacity	kW	2.2	2.8
		kBtu/h	7.5	9.6
	Power input	W	28	28
Heating[2]	Capacity	kW	2.4	3.2
		kBtu/h	8.2	10.9
	Power input	W	28	28
Air flow rate [3]		m³/h	422/411/402/393/380/368/356	417/402/386/370/353/338/316
Sound pressure level [4]		dB(A)	31/30/30/30/29/29/29	31/30/30/30/29/29/29
Unit	Net dimensions[5] (WxHxD)	mm	835×280×203	
	Packed dimensions (WxHxD)	mm	935×385×320	
	Net/Gross weight	kg	8.4/12.1	9.5/13.1
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7	
	Drain pipe	mm	OD Φ16	

Model			42VH012H115000106	42VH018H115000106	42VH024H115000106
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling[1]	Capacity	kW	3.6	4.5	5.6
		kBtu/h	12.3	15.4	19.1
	Power input	W	30	40	45
Heating[2]	Capacity	kW	4.0	5.0	6.3
		kBtu/h	13.6	17.1	21.5
	Power input	W	30	40	45
Air flow rate [3]		m³/h	656/628/591/573/544/515/488	594/563/535/507/478/450/424	747/713/685/648/613/578/547
Sound pressure level [4]		dB(A)	33/32/32/31/31/30/30	35/34/33/33/32/31/31	38/37/36/36/35/34/34
Unit	Net dimensions[5] (WxHxD)	mm	990×315×223		
	Packed dimensions (WxHxD)	mm	1085×420×335		
	Net/Gross weight	kg	11.4/15.5	12.8/16.9	
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7		Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ16		

Model			42VH028H115000106	42VH032H115000106	42VH036H115000106
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling[1]	Capacity	kW	7.1	8.0	9.0
		kBtu/h	24.2	27.3	30.7
	Power input	W	55	55	82
Heating[2]	Capacity	kW	8.0	9.0	10.0
		kBtu/h	27.3	30.7	34.1
	Power input	W	55	55	82
Air flow rate [3]		m³/h	1195/1130/1065/1005/940/875/809	1195/1130/1065/1005/940/875/809	1421/1300/1125/1067/1005/934/867
Sound pressure level [4]		dB(A)	44/43/42/39/38/37/36	44/43/42/39/38/37/36	48/46/45/43/41/40/38
Unit	Net dimensions[5] (WxHxD)	mm	1194×343×262		
	Packed dimensions (WxHxD)	mm	1290×375×460		
	Net/Gross weight	kg	17.0/22.4		
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9		
	Drain pipe	mm	OD Φ16		

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20℃ DB; outdoor temperature 7℃ DB, 6℃ WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
   Sound pressure level is measured 1m in front and 1m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Ceiling & Floor

Two installation options are available: horizontally against the ceiling or vertically against the floor/wall, idea for wide rooms with no ceilings.
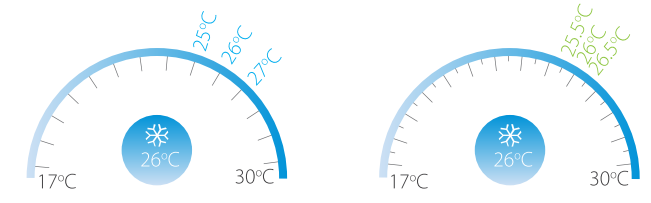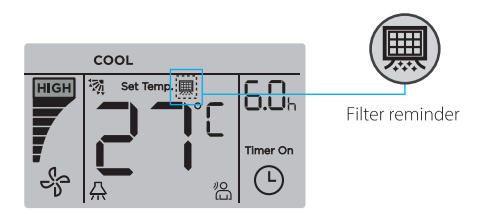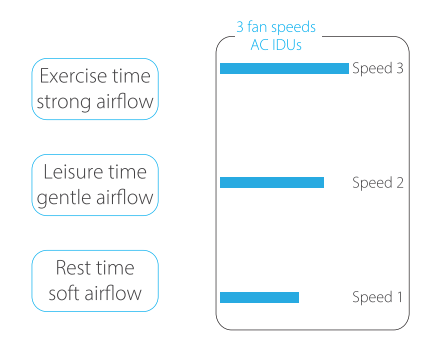
Key Features

Ceiling & Floor	
Comfort	
Quiet operation	●
0.5℃/1℃ setting temperature adjustment	●
Digital display on/off	●
Buzzer sound on/off	●
Health	
Air filter	●
Dirty filters indicator signal	●
Air flow	
Multiple fan speeds	3+auto
Multiple steps vertical swing	5+auto
Horizontal swing	●
Easy installation	
Pure white stylish panel with slim design	●
Exposed installation, easy installation and maintenance	●
Two installation options	●

Note:
●: equipped as standard

COMFORT

0.5℃/1℃ Setting Temperature Adjustment

Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control.

25℃ 26℃ 27℃
17℃ 26℃ 30℃   17℃ 26℃ 30℃

Digital Display On/Off

Indoor unit displays can be shut off at night, creating a better environment for rest.

Digital display

Buzzer Sound On/Off

Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.

Buzzer

HEALTH

Dirty Filters Indicator Signal

The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.

COOL
HIGH Set Temp. 6.0h
27℃
Timer On

Filter reminder

AIR FLOW

Multiple Fan Speeds

AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.

Exercise time strong airflow
Leisure time gentle airflow
Rest time soft airflow

3 fan speeds AC IDUs
Speed 3
Speed 2
Speed 1

Multiple Steps Vertical Swing and Horizontal Swing

Vertical air flow direction can be adjusted 5 steps and horizontal air flow direction can be adjusted manually, both vertical and horizontal can be set auto swing.

Horizontal & Ver tical

→ Step
---- Swing
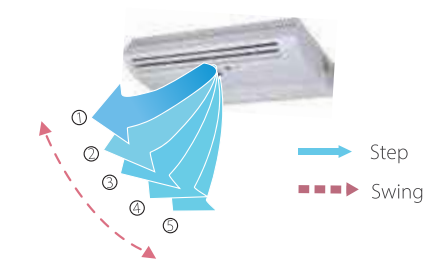
EASY INSTALLATION

Pure White Stylish Panel with Slim Design

Pure white stylish panel with slim design, perfect fusion in all kinds of decoration.

>20   Drop ceiling
203mm
Air outlet
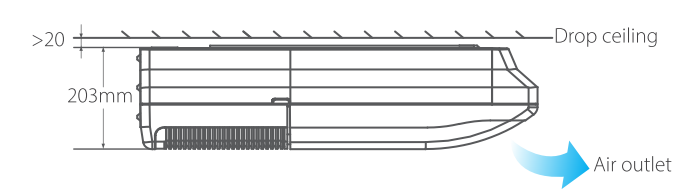
Exposed Installation, Easy Installation and Maintenance

The Ceiling & Floor unit is exposed installation, it is easy installation and maintenance. It can be serviced through the bottom of the machine, easy to access the key components of the unit.

Two Installation Options

A sleek design suits installation either on the ceiling or floor, providing flexibility to accommodate a wide range of room designs.

The unit can be installed either horizontally on the ceiling or vertically against the wall.

Specifications

50Hz Series

Model			42VF012H112000013	42VF018H112000013	42VF024H112000013	42VF028H112000013
Power supply			1 phase, 220-240V,50Hz			
Cooling[1]	Capacity	kW	3.6	4.5	5.6	7.1
	Input	W	49	120	122	125
Heating[2]	Capacity	kW	4	5	6.3	8
	Input	W	49	120	122	125
Indoor fan motor	Type		AC			
	Quantity		1			
Refrigerant type			R410A			
Airflow rate (H/M/L)		m³/h	650/570/500	800/600/500		
Sound pressure level (H/M/L)[3]		dB(A)	40/38/36	43/41/38		
Indoor unit	Dimension[4] (WxHxD)	mm	990×203×660			
	Packing (WxHxD)	mm	1089×296×744			
	Net/Gross weight	kg	26/32	28/34		
Piping connections	Liquid pipe	mm	Φ6.35		Φ9.53	
	Gas pipe	mm	Φ12.7		Φ15.9	
	Drain pipe	mm	ODΦ25			

Model			42VF032H112000013	42VF036H112000013	42VF048H112000013	42VF054H112000013
Power supply			1 phase, 220-240V,50Hz			
Cooling[1]	Capacity	kW	8	9	11.2	14
	Input	W	130	130	182	182
Heating[2]	Capacity	kW	9	10	12.5	15
	Input	W	130	130	182	182
Indoor fan motor	Type		AC			
	Quantity		1		2	
Refrigerant type			R410A			
Airflow rate (H/M/L)		m³/h	1200/900/700		1980/1860/1730	
Sound pressure level (H/M/L)[3]		dB(A)	45/43/40		47/45/42	
Indoor unit	Dimension[4] (WxHxD)	mm	1280×203×660		1670×244×680	
	Packing (WxHxD)	mm	1379×296×744		1764×329×760	
	Net/Gross weight	kg	34.5/41		54/59	
Piping connections	Liquid pipe	mm	Φ9.53			
	Gas pipe	mm	Φ15.9			
	Drain pipe	mm	ODΦ25			

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20℃ DB; outdoor temperature 7℃ DB, 6℃ WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Floor standing: Sound pressure level is measured 1m in front and 1m above the floor in a semi-anechoic chamber.
   Ceiling mounted: Sound pressure level is measured 1m in front and 1m below the unit in a semi-anechoic chamber.
4. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Fresh Air Processing Unit

- 100% fresh air processing unit, both fresh air filtration and heating/cooling can be achieved in a single system
- External static pressure up to 400Pa facilitates extensive duct and grille network
- 20-step static pressure control on all models (requires latest generation wired controllers)
- Water pump box is available as a option installed independently.

Optional controller

WL-12B-CM   WL-12F-CM   WR-86KD-CM   WR-120G-CM

Model			42VD052H115211016	42VD054H115211016
Power supply			1 phase, 220-240V, 50/60Hz	
Cooling[1]	Capacity	kW	12.5	14.0
		kBtu/h	42.6	47.8
	Power input	W	480	480
Heating[2]	Capacity	kW	10.5	12.0
		kBtu/h	36.0	41.0
	Power input	W	480	480
Air flow rate[3]		m³/h	2000/1917/1833/1750/1667/1583/1500	
External static pressure		Pa	150(100-250)	
Sound pressure level[4]		dB(A)	48/47/46/45/44/43/42	
Unit	Net dimensions[5] (WxHxD)	mm	1322×423×691	
	Packed dimensions (WxHxD)	mm	1436×450×768	
	Net/Gross weight	kg	68/76	
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ19.1	
	Drain pipe	mm	OD Φ25	
Operating temperature range		°C	Heating: -5 to 16; Cooling: 20 to 43; Fan only: 16 to 20	

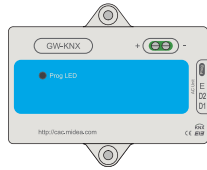| Model			42VD056H115211016	42VD058H115211016	42VD060H115211016	42VD160H115211016	42VD190H115211016
Power supply			1 phase, 220-240V, 50/60Hz				
Cooling[1]	Capacity	kW	20.0	25.0	28.0	45.0	56
		kBtu/h	68.2	85.3	95.5	153.6	191
	Power input	W	850	850	850	1080	2272
Heating[2]	Capacity	kW	12.8	16.0	18.0	28.0	39
		kBtu/h	43.7	54.6	61.4	95.6	133
	Power input	W	850	850	850	1080	2272
Air flow rate[3]		m³/h	3000/2833/2667/2500/2333/2167/2000			4200/3967/3733/3500/3267/3033/2800	6000/5665/5330/5000/4665/4330/4000
External static pressure		Pa	200(100-400)			300(100~400)	
Sound pressure level[4]		dB(A)	50/49/48/47/46/44/43			58/56/55/53/51/49/48	59/57/56/55/53/51/50
Unit	Net dimensions[5] (WxHxD)	mm	1454×515×931			2010×905×680	
	Packed dimensions (WxHxD)	mm	1509×550×990			2095×929×689	
	Net/Gross weight	kg	130/142			195/215	218/248
Pipe connections	Liquid/Gas pipe	mm	Φ12.7/Φ22.2			Φ15.9/Φ28.6	
	Drain pipe	mm	OD Φ32			OD Φ32	
Operating temperature range		°C	Heating: -5 to 16; Cooling: 20 to 43; Fan only: 16 to 20				

Notes:
1. Indoor temperature 27℃ DB, 19℃ WB; outdoor temperature 35℃ DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20℃ DB; outdoor temperature 7℃ DB, 6℃ WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
   Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
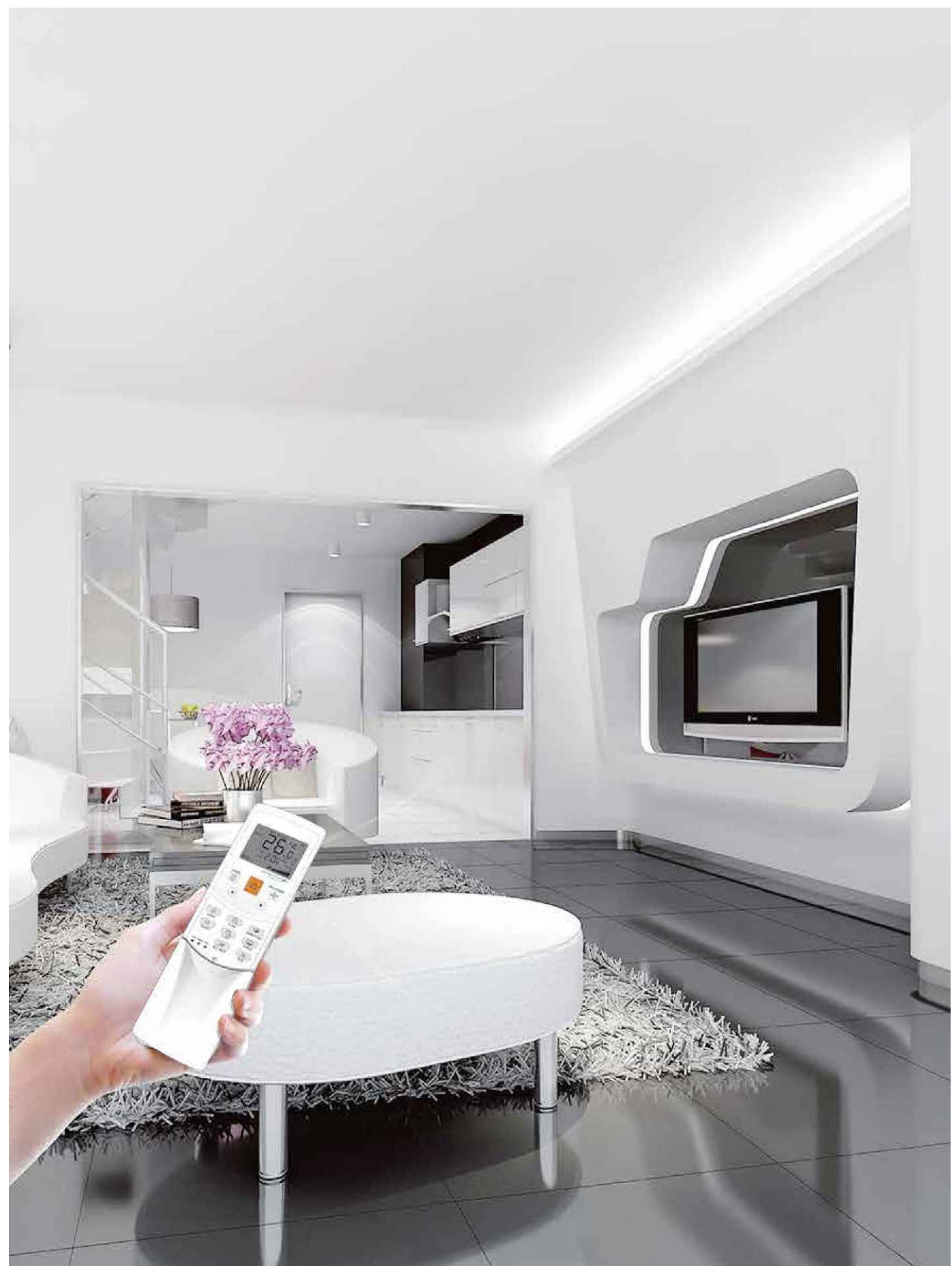All specifications are measured at standard external static pressure.

CONTROL SOLUTIONS
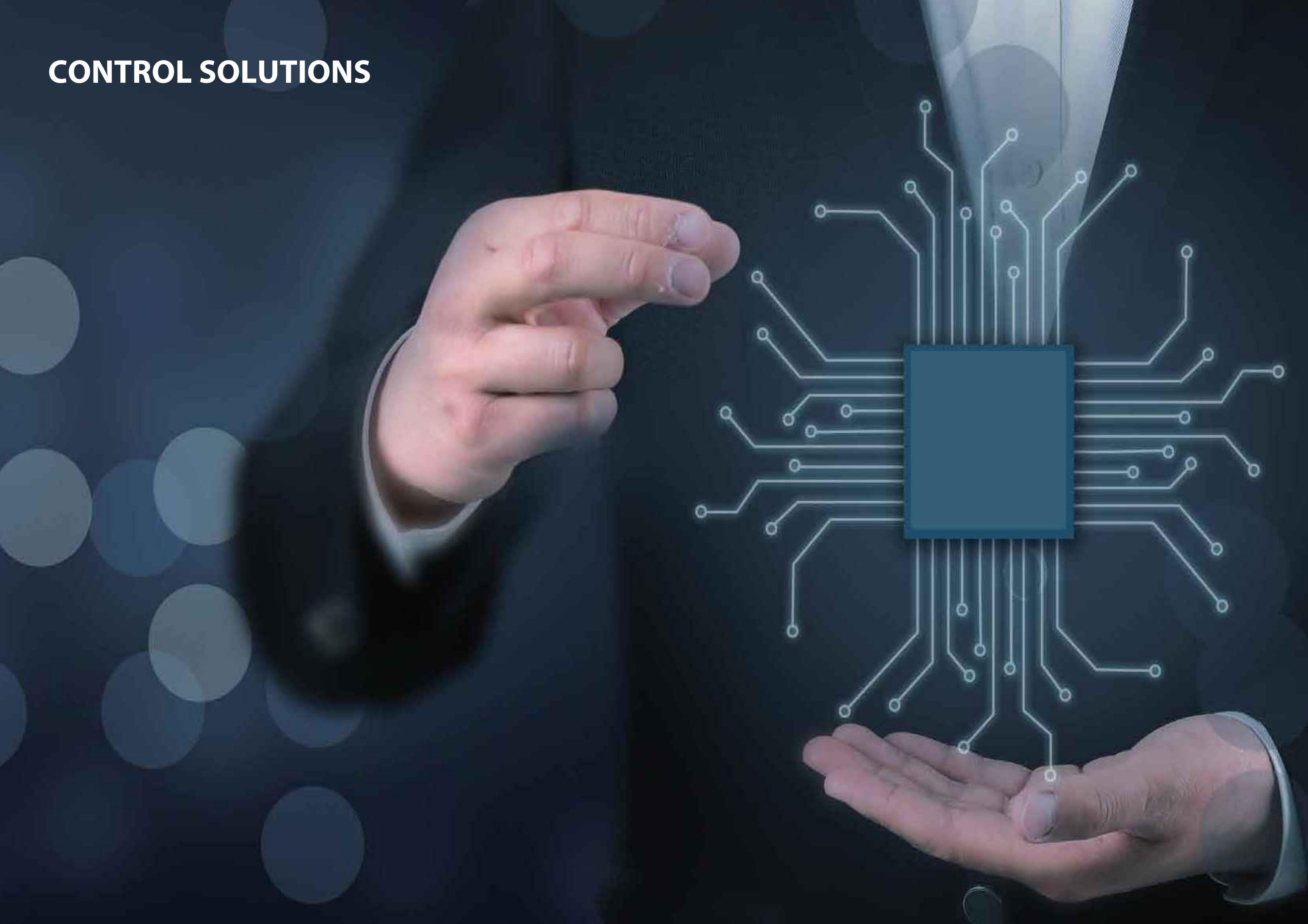
CONTROLLER LINEUP

| Wireless Remote Controllers	Wired Controllers	Centralized Controllers		Network Control System	BMS Gateways	Accessories
WL-12B-CM Standard wireless remote for all non-ducted indoor units	WR-86KD-CM Factory recommended thermostat	CRF-180B-CM		5GNS-BAC-CM **OR**	5GNS-BAC-CM	Hotel Key Card Interface Module CA-HKCW
WL-12F-CM	WR-120G-CM	CRF-270C-CM		CRF-270C-CM **+**	NW-LON-CM-A	Infrared Sensor Controller CA-IS
		CRF-210A-CM		4GNS-20-IF	NW-MOD-CM-A	Diagnosis software VRF-DIAG-B
		CRF-15B-CM		**=** Intelligent Management System	NW-KNXA-CM	XYE Extension Kit CA-EK

Wireless Remote Controllers

Features

Model	WL-12B-CM	WL-12F-CM
On / Off	●	●
Mode selection	●	●
Temperature setting	● (0.5℃ or 1℃ steps)	● (0.5℃ or 1℃ steps)
7-speed fan control	●	●
Auto swing	●	●
5-step swing louver	●	●
Address setting	●	●
Follow me	▬	●
Eco mode	●	●
Night silent mode	●	●
Display shut-off	●	●
Daily timer	●	●
Keyboard lock	●	●
Background light	●	●
Dimensions (H×W×D) (mm)	150×65×20	170×48×20
Batteries		
louver independent control	▬	●

● With this function

▬ Without this function

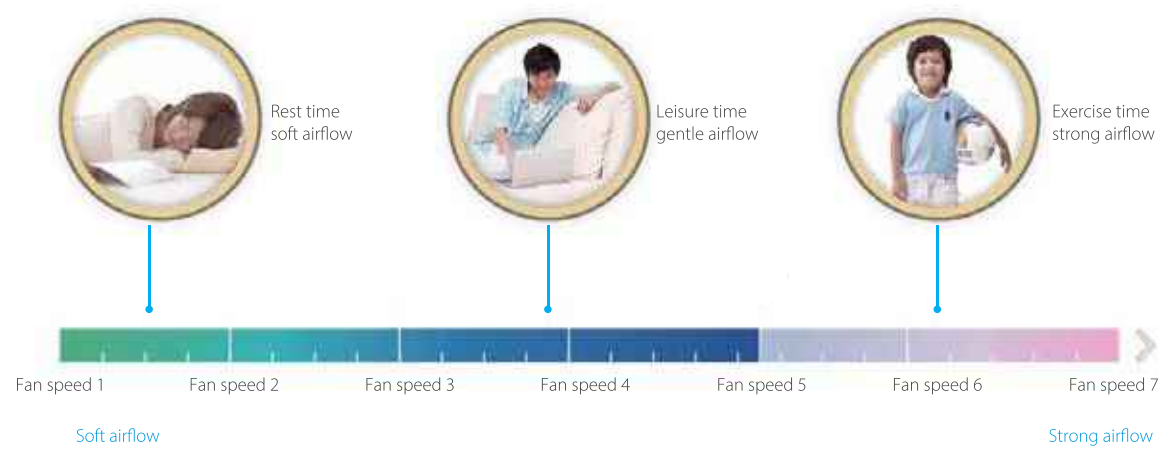## Temperature Setting

Set temperature can be adjusted in 0.5℃ or 1℃ steps, enabling precise comfort control.

❄ 26℃

25.5℃   26.5℃

25℃   27℃
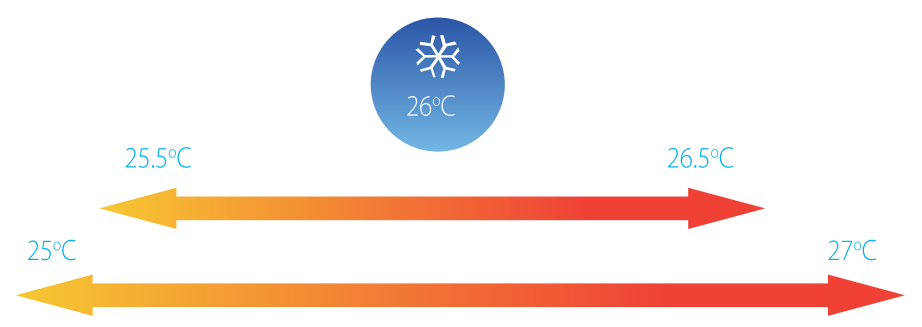
7-Speed Fan Control

7 indoor fan speeds provide control flexibility to meet the needs of different indoor conditions.

Rest time
soft airflow

Leisure time
gentle airflow

Exercise time
strong airflow

Fan speed 1   Fan speed 2   Fan speed 3   Fan speed 4   Fan speed 5   Fan speed 6   Fan speed 7

Soft airflow   Strong airflow

Dispaly Shut-off

Indoor unit displays can be shut off at night, creating a better environment for rest.

988

5-step Swing Louver

The air is comfortably spread upwards and downwards thanks to the 5-step swing louver that can be programmed via the controller.

① ② ③ ④ ⑤

→ Step
⇢ Swing
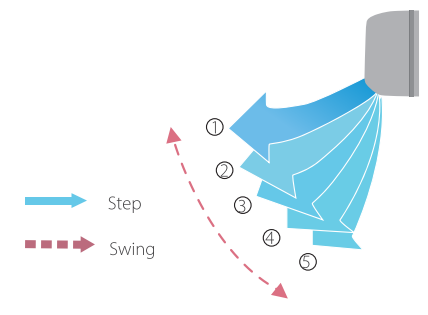
Follow Me

With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in to the wireless remote controller, rather than the temperature sensor in the indoor unit itself, enabling more precise control of the temperature in the user's immediate environment.

26

27℃   26℃   26℃

Eco Mode

Eco mode saves energy whilst retaining a comfortable indoor environment.

Wired Controllers

Features

Model	WR-86KD-CM	WR-120G-CM
On / Off	●	●
Mode selection	●	●
Temperature setting	● (0.5°C or 1°C steps)	● (0.5°C or 1°C steps)
Dual temperature set points	●	●
7-speed fan control	●	●
Auto swing	●	●
5-step swing louver	●	●
Address setting	●	●
Follow me	●	●
Eco mode	●	●
Room temperature display	●	●
°F/°C display	●	●
Keyboard lock	▬	●
Background light	●	●
Daily timer	●	●
Weekly schedule timer	▬	●
Auto restart	●	●
2 permission levels	▬	●
Bi-directional communication	●	●
Group control	▬	●
Main or secondary controller setting	●	●
Display shut-off	●	●
Night silent mode	●	●
Remote signal receiver	●	●
Clean filter reminder	●	●
Extension function	▬	●
Daylight saving time	▬	●
Clock display	▬	●
Dot matrix display	▬	●
Error check function	●	●
System parameter querying	●	●
System setting control	●	●
Dimensions (WxHxD) (mm)	86x86x18	120x120x20
Power supply	18 DC	18 DC

● With this function

▬ Without this function

Group Control

One controller can be used to unify the settings across up to 16 indoor units.

D1D2   D1D2   D1D2   D1D2

X1X2

Indoor units   Up to 16

Main or Secondary Controller Setting

Two controllers can be used together, with the indoor units' operating mode and settings being set according to the most recent instruction received. The controller display screens are synchronized so that both displays update when a setting is adjusted.

X1X2   X1X2

Main   Indoor units   Secondary

One indoor unit

D1D2   D1D2   D1D2   D1D2   D1D2

X1X2   Indoor units   Up to 16   X1X2

Main   Secondary

Two or more indoor units
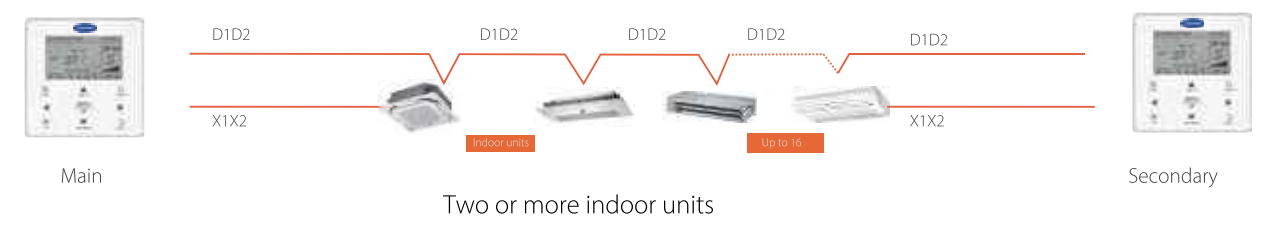
2 Permission Levels

2 permission levels ensure users can easily access control functions and allow administrators convenient access to operating parameters.
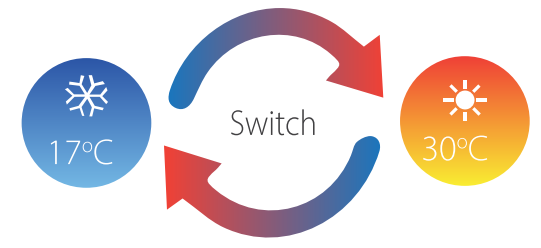
Admin
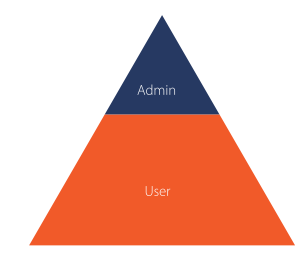
User

Extension Function

The extension function is specifically designed for users working overtime. Pressing the delay button postpones system shutdown by 1 or 2 hours.

24°C   Extension

ON   OFF

Dual Temperature Set Points

With dual temperature set point control, the set temperature changes automatically when the operating mode is changed.

17°C   Switch   30°C

Weekly Schedule Timer

The weekly schedule timer allows users to set multiple schedules each with its own operating mode, temperature settings and fan speeds.

Weekly Schedule

| SUN | MON | TUE | WED | THU | FRI | SAT |

OFF   HEAT   COOL   FAN
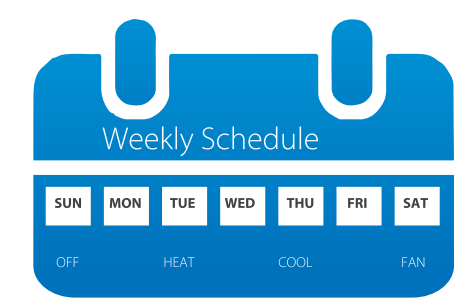
Bi-directional Communication

The wired controller can query the system operating parameters thanks to the new bi-directional communication functionality. In addtion, settings including static pressure, cold draft prevention and temperature compensation can be configured on the wired controller.

Bi-directional   Bi-directional

Centralized Controllers

Features

Function	CRF-180B-CM	CRF-210A-CM	CRF-270C-CM
Max. number of indoor units	64	64	384
Max. number of refrigerant systems	8	8	48
Touch screen	● (6.2-inch)	● (7.0-inch)	● (10.1-inch)
On/Off	●	●	●
Mode selection	●	●	●
Temperature setting	● (0.5°C steps)*		
7-speed fan control	●*		
Auto swing	●	●	●
5-step swing louver*	●	●	●
Room temperature display	●	●	●
Holiday setting	●	●	●
°C/°F display	●	●	●
Schedule management	●	●	●
Clock display	●	●	●
2 permission levels	●	●	●
Extension function	●	×	×
Indoor unit type/model recognition	●*		
Indoor unit with capacity larger than 16kW recognition	●*		
HRV Control	●	●	●
Visual schematic	×	×	●
Energy management	●	●	●
Group management	●	●	●
Error check function	●	●	●*
System parameter querying	●	●	●
USB output	●	●	●
Report display	Error report	Error report	Error report and operation record
Operation log	×	×	●
LAN access	×	×	●
Language supported	English, Chinese, French, Spanish, Portuguese, Italian, German, Polish, Turkish, Hungarian, Russian, Korean		
Dimensions (W×H×D) (mm)	182×123×34	174x111x26	270×183×27
Power supply	12V DC	12V DC	24V AC
Outdoor unit series or indoor unit series	All series		

Note:
●: equipped as standard; ×: without this function
*means this function is only available for V6/V6i/V6R/V4+I(10-12HP), Mini C outdoor unit.

Touch Screen

Colorful touch screen and vivid display make operation more convenient and simple.

Electricity Charge Distribution

The controllers estimate the electricity consumption of the outdoor units and then divide it among the indoor units so that the electricity charges can be equitably divided among building occupants.

Energy Management

User can set limits or locks on an indoor unit, such as minimum cooling temperature, maximum heating temperature, fan speed, operation mode, swing lock, remote controller lock and wired controller lock.

Visual Schematic

By importing floor plans and then dragging and dropping the indoor units to their actual positions on the floor plan, users can create a tailored system schematic which enables monitoring and control of the indoor units through a clear visual representation of the system layout.
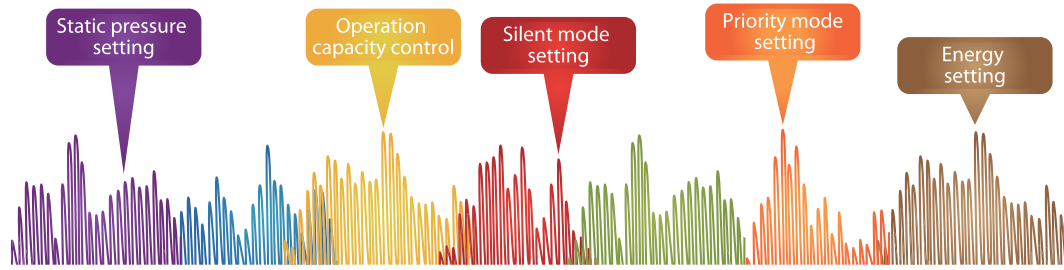
Group Management

Units can be viewed according to group, system or location, making unit management clearer and more convenient.

Outdoor Unit Configuration

Outdoor unit configuration and settings can be monitored and controlled without having to go outdoors.

Unit Model Recognition

The controller recognizes the model of indoor and outdoor units and different models are represented by different icons.

Schedule Management

Daily, weekly or annual schedules can be used to set unit settings such as on/off, operating mode, set temperature, fan speed and swing.
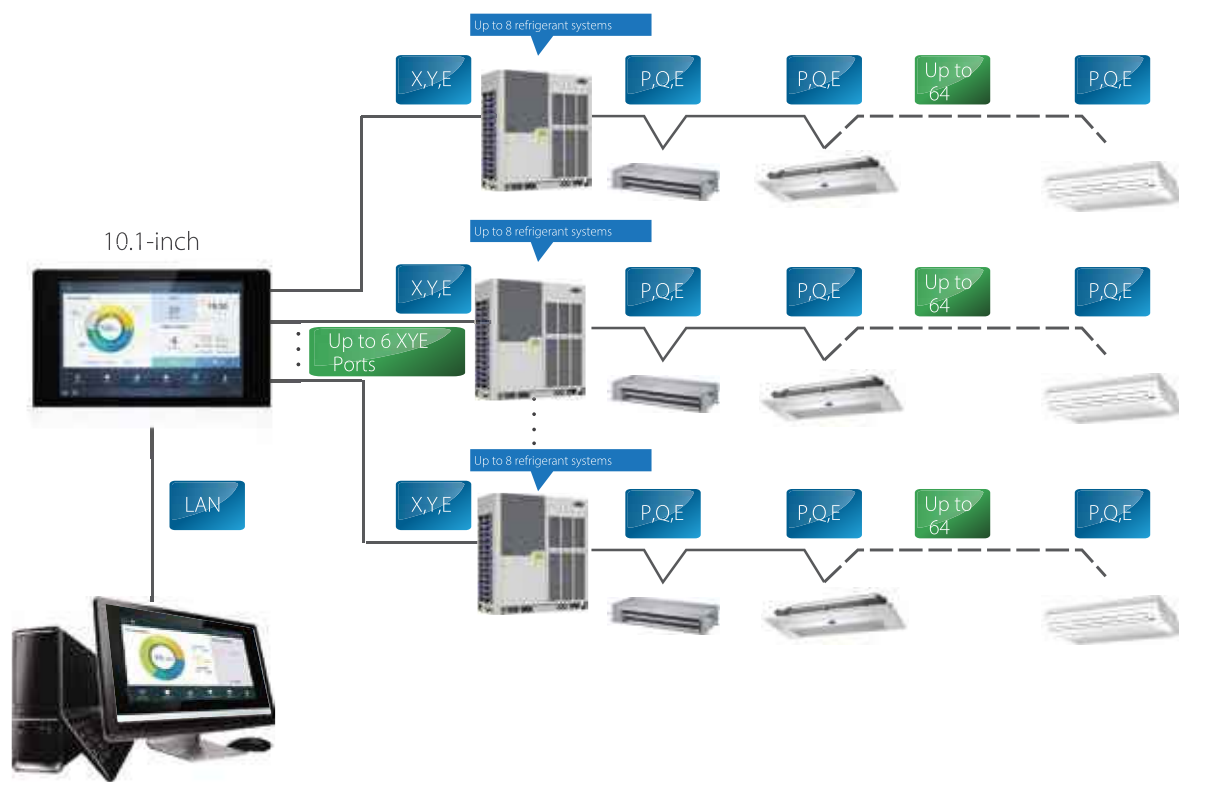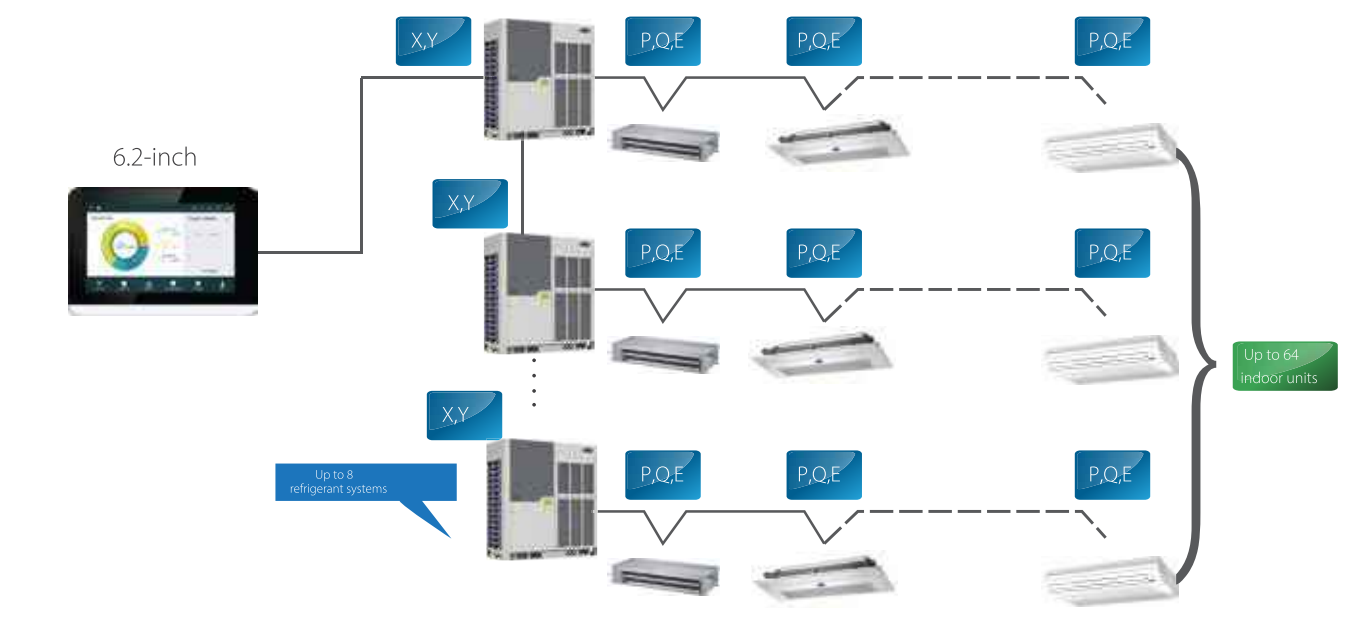

LAN Access

A desktop or laptop PC can be used for browser-based access via a LAN connection.
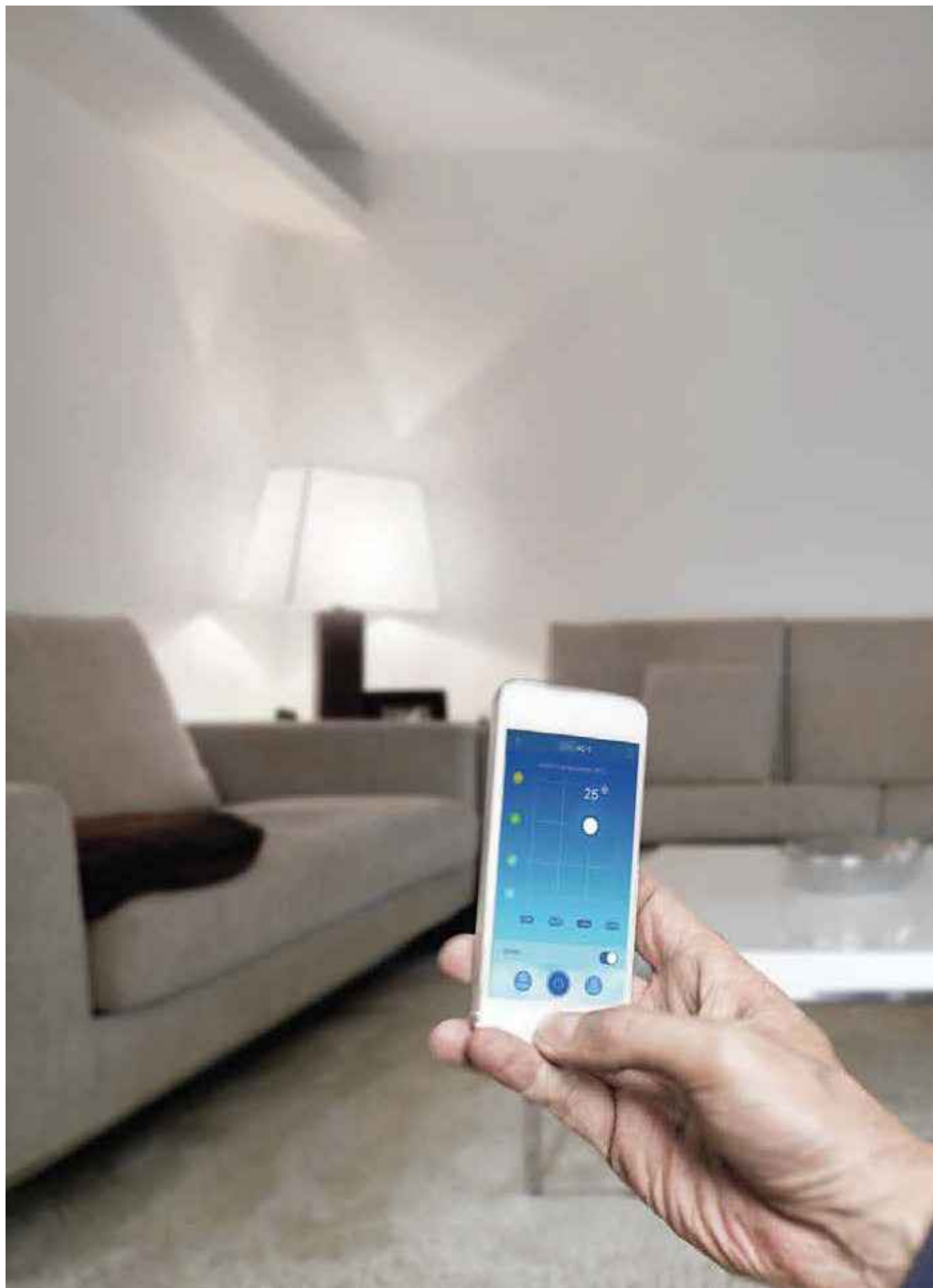

Wiring Flexibility

The controllers can be connected to the master outdoor unit directly.

6.2-inch

Up to 64 indoor units

Up to 8 refrigerant systems

X,Y

P,Q,E

10.1-inch

Up to 6 XYE Ports

LAN

Up to 8 refrigerant systems

X,Y,E

P,Q,E

Up to 64

Data Converter

Features

	Hardware model	
Hardware model	CIF-15B-CM	

	Mobile Phone Application	Cloud Server Website
Application scenarios		
Max. number of CCM-15 for one mobile APP	10	10
Max. number of indoor units	640	640
Max. number of refrigerant systems	80	80
On/Off	●	●
Mode selection	●	●
Temperature setting	● (1℃ steps)	● (1℃ steps)
7-speed fan control	▬	▬
Auto swing	●	●
5-step swing louver	▬	▬
Room temperature display	●	●
℃/℉ display	●	●
Weekly timer	●	●
Indoor unit type recognition	▬	▬
Energy management	●	●
Group management	●	●
User group management	●	●
Operation log	●	●
Device log	●	●
Login record	●	●
Error log	▬	●
Configuration	●	▬
Account registration	●	▬
Virtual	●	▬
Mode display	●	●
Languages supported	English, French, Spanish	English, French, Spanish
Dimensions (W×H×D) (mm)	187×115×28	
Power supply	1 phase, 100~240V, 50/60Hz	

● With this function

▬ Without this function

High Compatibility

Compatible with a variety of operating systems.

User Friendly Interface

Clear, stylish interface designed by leading industrial designers.


Cloud Server Website

In addition to "M-control", users can control air conditioners and query the status of air conditioning equipment anytime and anywhere through the cloud server website.

Virtual Experience

After downloading "M-control", you can experience the operation of the interface through the virtual experience function without registration.

No registration
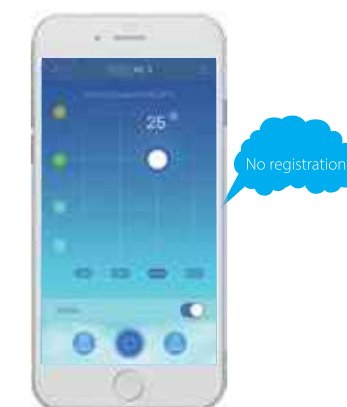
Easy Configuration

User groups can be joined simply by scanning a QR code.

Convenient Operation

Drag the position of the floating bubbles to change temperature and fan speed.

Anytime Control

Remote access to CIF-15A-CM allows anytime, anywhere control.

Clear Icons

Clear, color-coded icons allow unit operating states to be viewed at a glance.

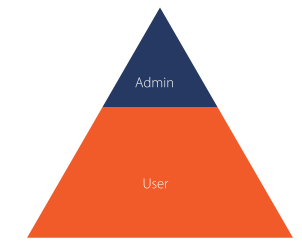| AC-5 ☀	AC-6 ❄	AC-4 ❄	AC-2 ❄
24 ℃	-- ℃	24 ℃	Off
HEAT	FAN	COOL	OFF

Group Management

The user can group the air conditioners equipment, and the air conditioner in the same group can be controlled together just with one tap.
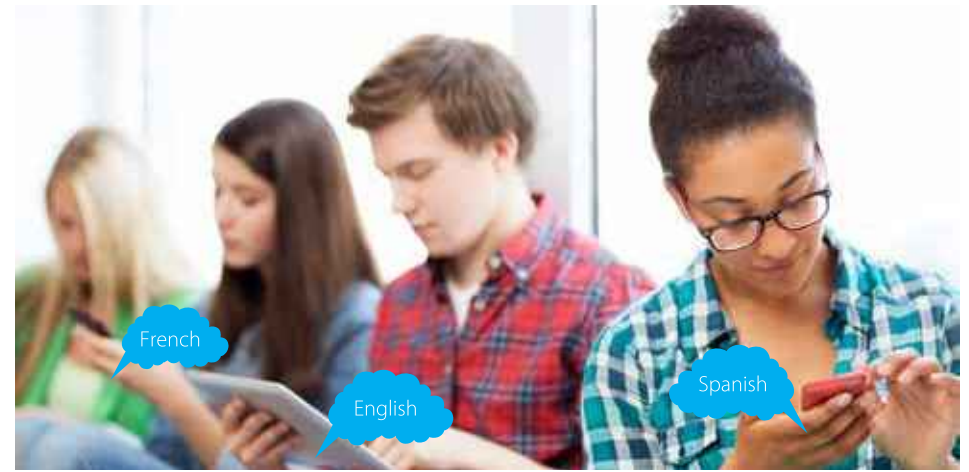
2 Permission Levels

Administrators can set different permissions for different users to facilitate better management of devices.
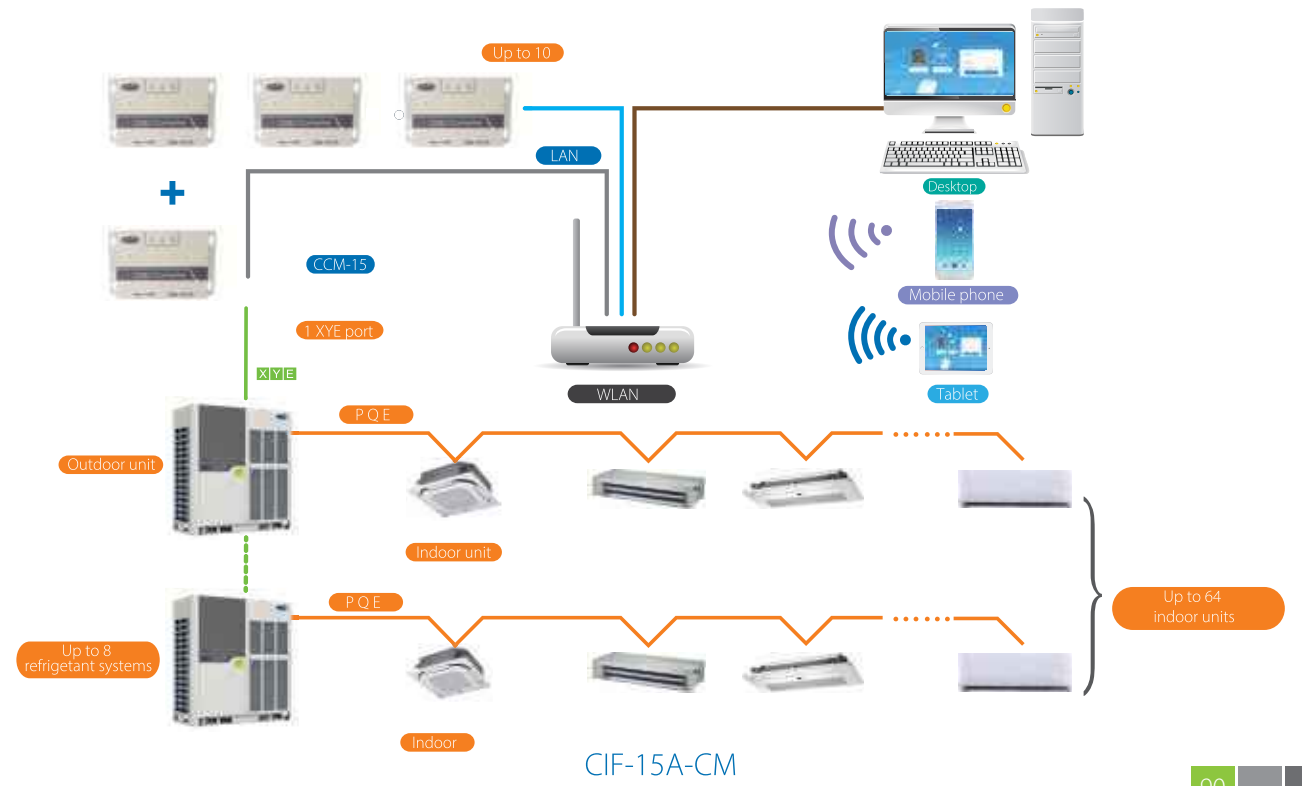
Admin

User

Multiple Language Options

Supports multiple languages so that users of different languages can operate easily.

French

English

Spanish

Flexibility

The Data Converter can be connected directly to a network of indoor/outdoor units.

Up to 10

LAN

Desktop

CCM-15

1 XYE port

Mobile phone

X Y E

WLAN

Tablet

P Q E

Outdoor unit

Indoor unit

P Q E

Up to 64
indoor units

Up to 8
refrigetant systems

Indoor

CIF-15A-CM

Network Control System

Features

	IMMPRO	
Software model		
Hardware model		
	5GNS-BAC-CM	CRF-270C-CM
Max. number per software system	10	10
Max. number of indoor units	2560	3840
Max. number of refrigerant systems	320	480
Temperature setting	● (0.5℃ steps)	● (0.5℃ steps)
7-speed fan control*	●	●
Auto swing	●	●
5-step swing louver	●	●
Outdoor unit Eco mode setting	●	●
Holiday setting	●	●
Schedule management	●	●
Clock display	●	●
2 permission levels	●	●
Unit model recognition	●	●
Electricity charge distribution	●	●
Visual schematic	●	●
Energy management	●	●
Group management	●	●
Error check function	●	●
System parameter querying	●	●
Report output	●	●
Operation log	●	●
LAN access	●	●
Languages supported	English, Chinese, French, Spanish, Portuguese, Italian, German, Polish, Turkish, Hungarian, Russian, Korean	
Dimensions (W×H×D) (mm)	251×319×61	270×183×27
Power supply	1 phase, 100-240V, 50/60Hz	24V AC

Note:
●: equipped as standard; ×: without this function
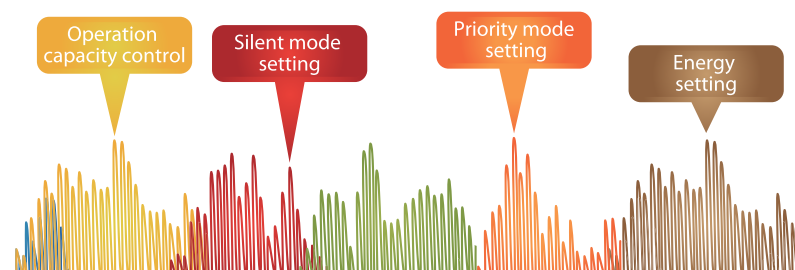
User-friendly Interface

Simple, practical user interface makes for a user-friendly experience even for first-time users.

Outdoor Unit Configuration

Outdoor unit configuration and settings can be monitored and controlled without having to go outdoors.


Operation capacity control
Silent mode setting
Priority mode setting
Energy setting

Electricity Charge Distribution

The IMMPRO uses the Calculation Method to estimate the electricity consumption of the outdoor units and then divide it among the indoor units so that the electricity charges can be equitably divided among building occupants.

Public and Idle Devices

Marking a unit as a public device or idle device ensures the electricity charge distribution is more accurate and reasonable.
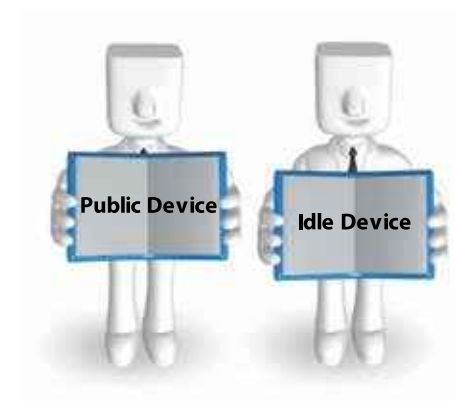
Public Device   Idle Device

Visual Schematic

By importing floor plans and then dragging and dropping the indoor units to their actual positions on the floor plan, users can create a tailored system schematic which enables monitoring and control of the indoor units through a clear visual representation of the system layout.
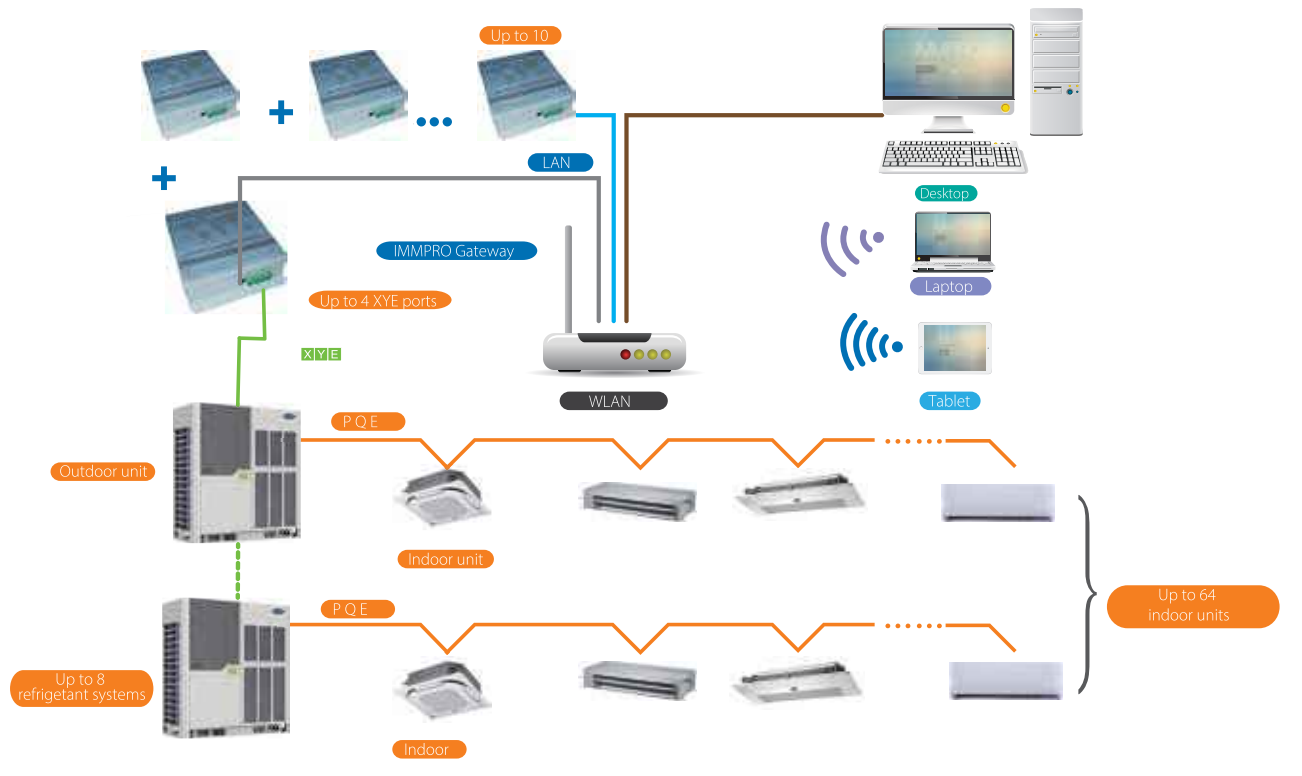

Schedule Management

Daily, weekly or annual schedules can be used to set unit settings such as on/off, operating mode, set temperature, fan speed and swing.
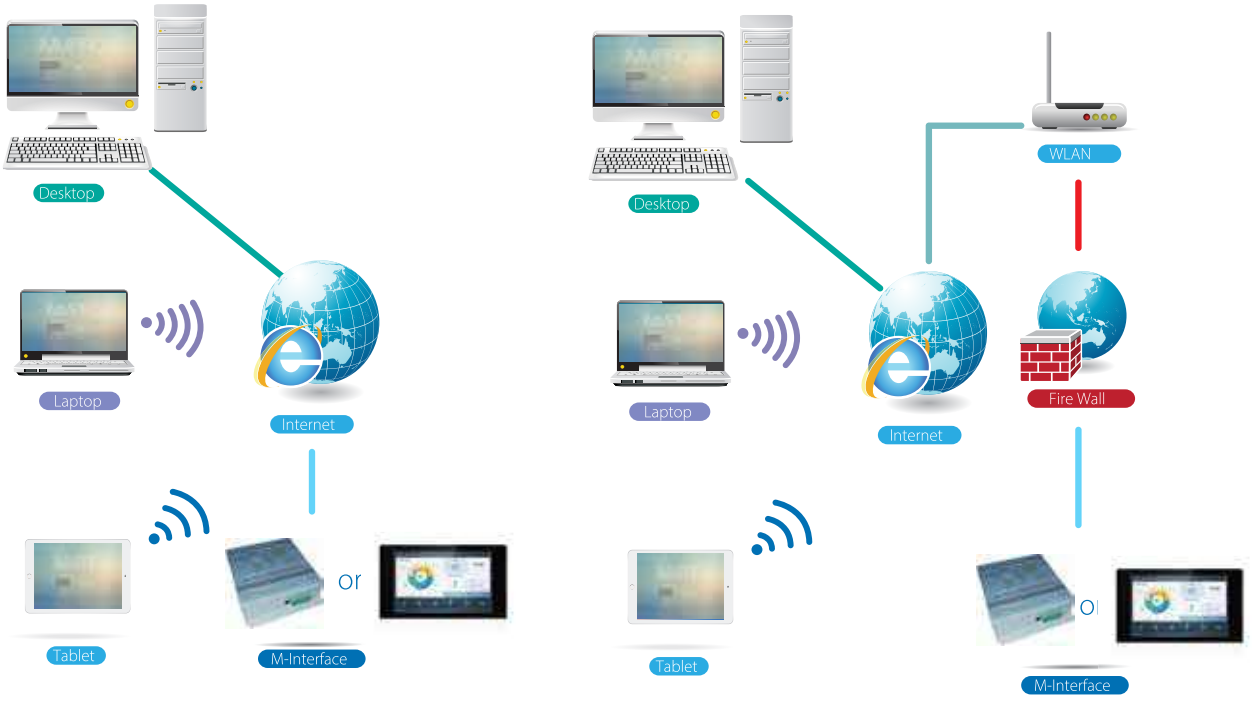
Xpress Installation

With the Xpress Installation wizard, IMMPRO can be installed quickly and easily without requiring support from a technical support engineer.
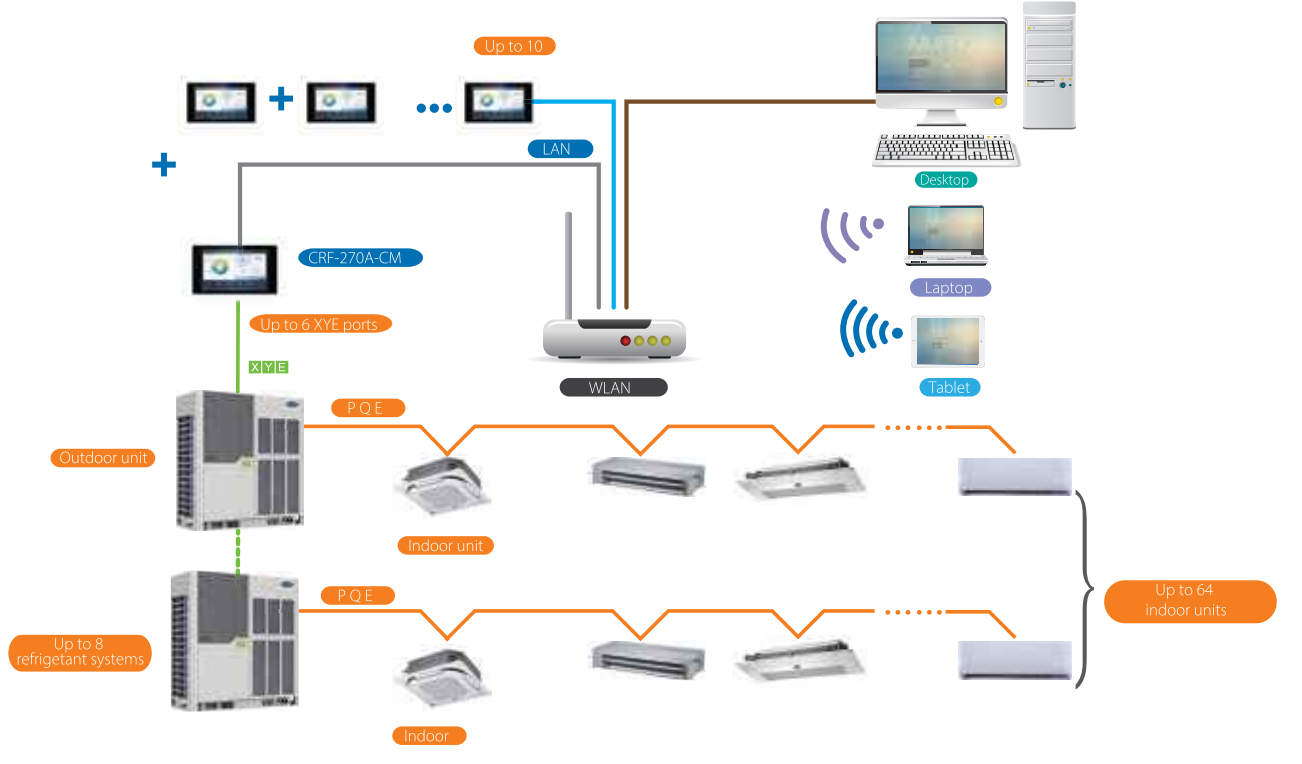

Network Flexibility

LAN access

Remote VPN access

Up to 10

LAN

IMMPRO Gateway

Up to 4 XYE ports

X Y E

WLAN

Desktop

Laptop

Tablet

P Q E

Outdoor unit

Indoor unit

P Q E

Up to 8
refrigetant systems

Indoor

Up to 64
indoor units

4GNS-BAC-CM

Up to 10

LAN

CRF-270A-CM

Up to 6 XYE ports

X Y E

WLAN

Desktop

Laptop

Tablet

P Q E

Outdoor unit

Indoor unit

P Q E

Up to 8
refrigetant systems

Indoor

Up to 64
indoor units

CRF-270B-CM

BMS Gateway

Monitoring and control of Carrier's VRF air conditioners can be integrated into building management systems, enabling air conditioning to be monitored alongside lighting, power, fire, access and security systems. Carrier's gateway devices provide full compatibility with the leading BMS protocols: BACnet, LonWorks and Modbus.
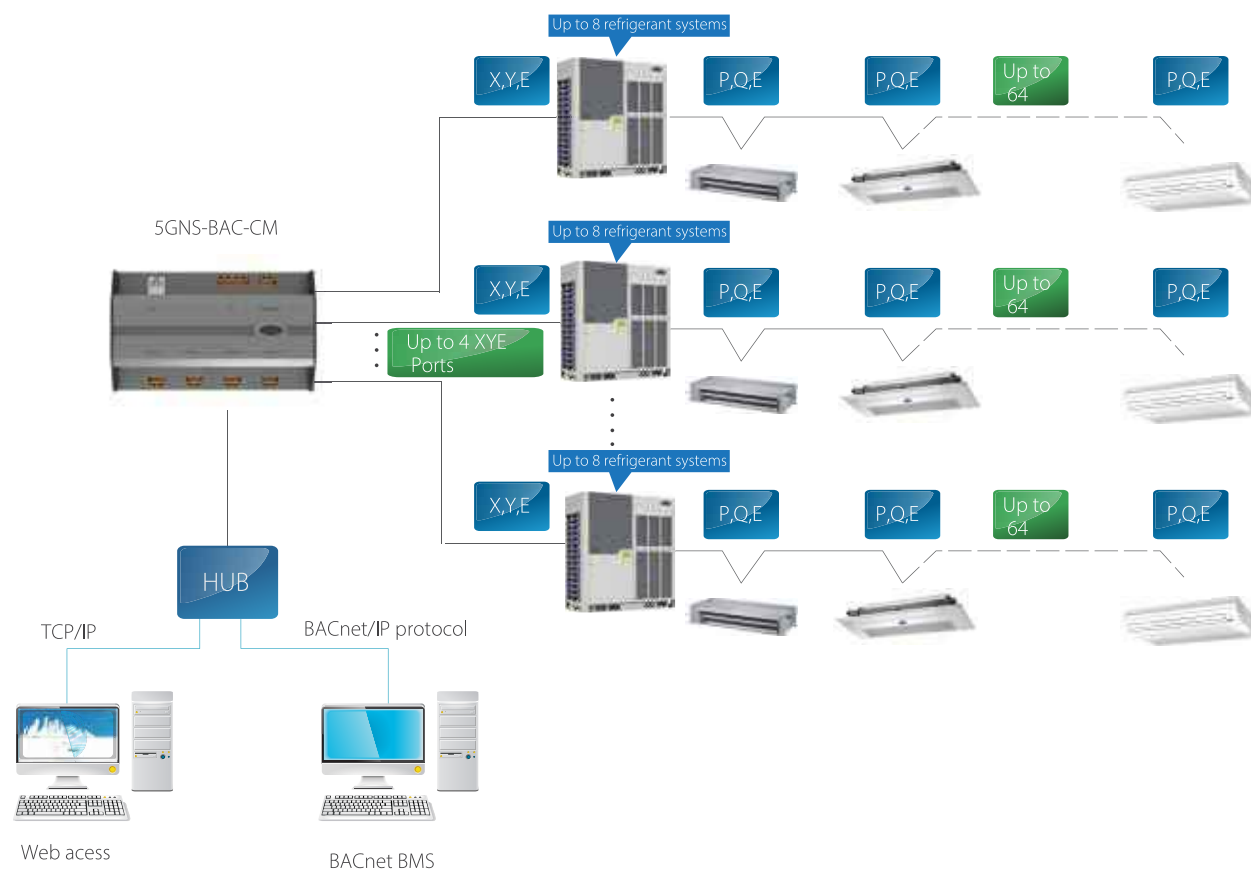
BACnet® Gateway

5GNS-BAC-CM

Full Integration

The 4GNS-BAC-CM Gateway allows Carrier VRF systems to be monitored and controlled alongside other building management technology that use the BACnet protocol such as access control, fire detection and lighting systems.

Network Flexibility

The gateway can be connected to master outdoor units' XYE ports directly.

5GNS-BAC-CM

Up to 8 refrigerant systems

X,Y,E   P,Q,E   P,Q,E   Up to 64   P,Q,E

Up to 8 refrigerant systems

X,Y,E   P,Q,E   P,Q,E   Up to 64   P,Q,E

Up to 4 XYE Ports

Up to 8 refrigerant systems

X,Y,E   P,Q,E   P,Q,E   Up to 64   P,Q,E

HUB

TCP/IP   BACnet/IP protocol

Web acess   BACnet BMS

Features

Model		5GNS-BAC-CM
Max. number of indoor units		256
Max. number of outdoor units		128
Max. number of refrigerant systems		32
Control	On / Off	●
	Mode selection	●
	Temperature setting	●
	Fan speed	●
	Energy management	●
Indoor unit monitoring	Room temperature display	●
	Error status	●
	Error alarms	●
Outdoor unit monitoring	Operating mode	●
	Outdoor ambient temperature	●
	Fan speed	●
	Compressor operating frequency	●
	Discharge temperature	●
	System pressure	●
	Error status	●
	Error alarms	●
LAN access		●
BTL certification		●
Compatibility	Siemens	APOGEE
	Trane	TRACER
	Honeywell	ALERTON
	Schneider	Andover Continuum
	Johnson Controls	METASYS
Dimensions (HxWxD)(mm)		116x190x67
Power supply		24V AC 50/60Hz

● With this function
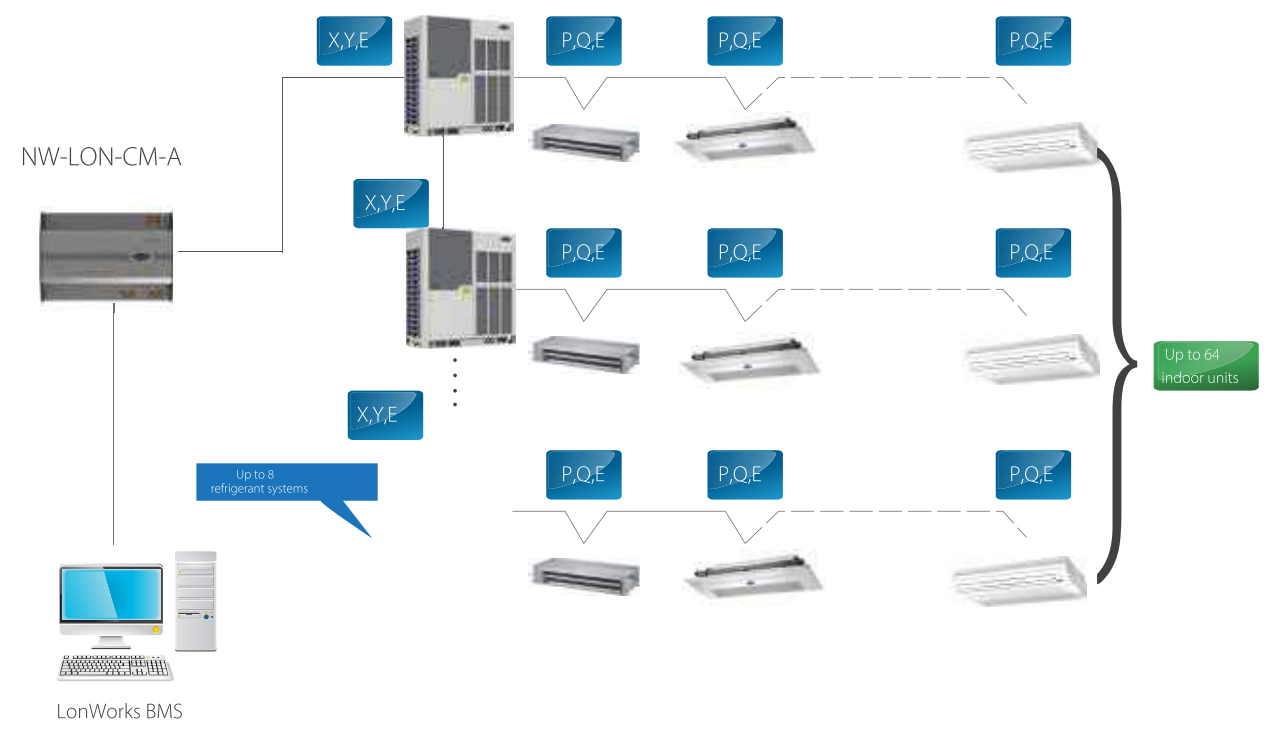▬ Without this function

LonWorks® Gateway

NW-LON-CM-A

Full Integration

The NW-LON-CM Gateway allows Carrier VRF systems to be monitored and controlled alongside other building management technology on the LonWorks platform such as security, fire safety and lighting systems.

Network Flexibility

NW-LON-CM-A

X,Y,E

X,Y,E

X,Y,E

P,Q,E P,Q,E P,Q,E
P,Q,E P,Q,E P,Q,E
P,Q,E P,Q,E P,Q,E

Up to 64 indoor units

Up to 8 refrigerant systems

LonWorks BMS

Features

Model		NW-LON-CM-A
Max. number of indoor units		32
Max. number of refrigerant systems		8
Control	Mode selection	●
	Temperature setting	●
	Fan speed	●
	Group shut down	●
	On / Off	●
Indoor unit monitoring	Operating mode	●
	Set temperature	●
	Fan speed	●
	Online status	●
	Operating status	●
	Room temperature	●
	Error status	●
Outdoor unit monitoring	Error status	●
Dimensions (HxWxD)(mm)		116x170x67
Power supply		24V AC 50/60Hz

● With this function

▬ Without this function

NW-MOD-CM-A
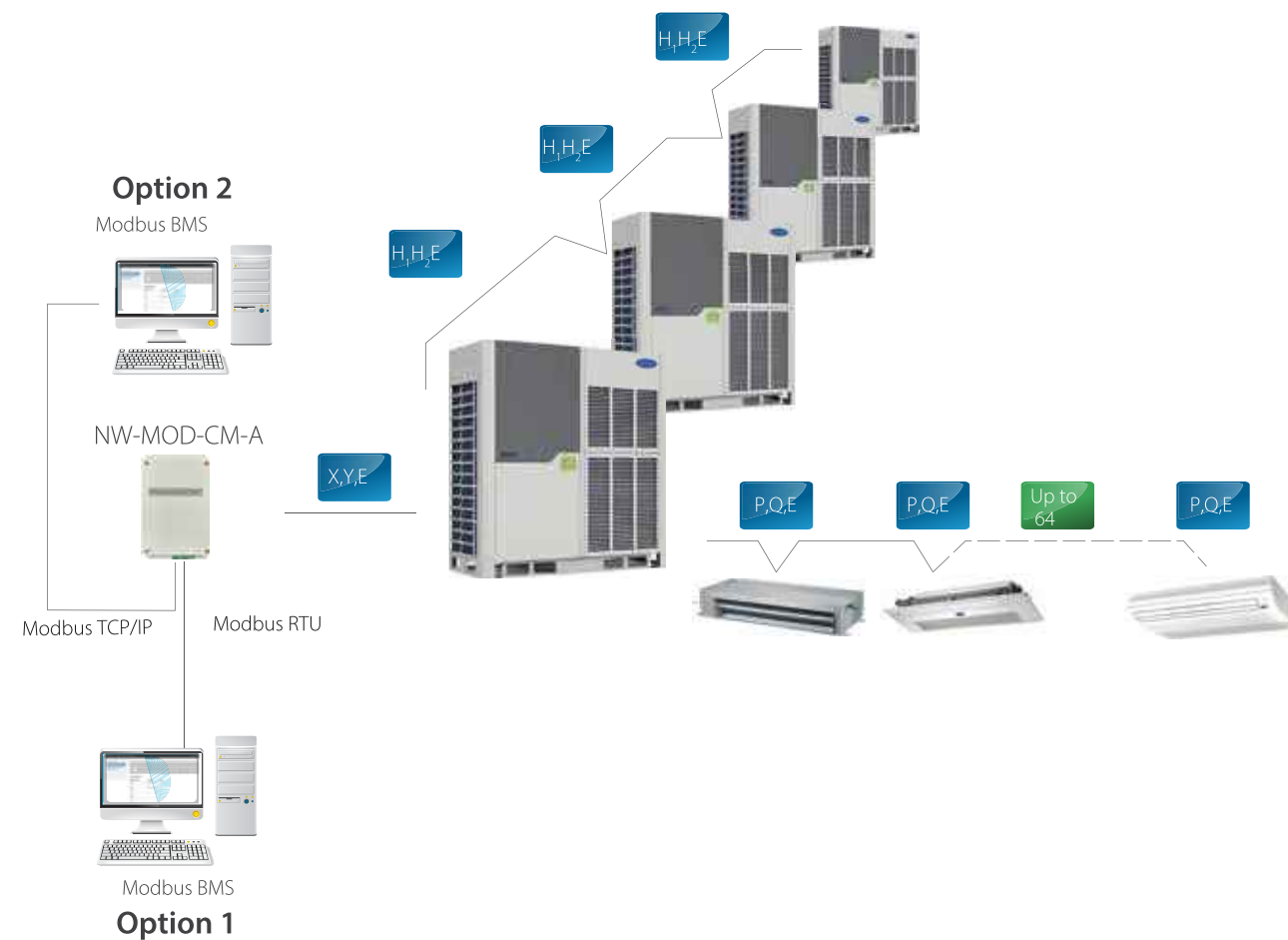
Modbus® Gateway

Full Integration

The NW-MOD-CM Gateway enables seamless connection of Carrier VRF systems with building management systems built on the Modbus communication protocol.

Network Flexibility

Option 2
Modbus BMS

NW-MOD-CM-A

Modbus TCP/IP   Modbus RTU

Modbus BMS
Option 1

Features

| Model		NW-MOD-CM
Max. number of indoor units		64
Max. number of outdoor units		4
Max. number of refrigerant systems		1
Control	On / Off	●
	Mode selection	●
	Temperature setting	●
	Fan speed	●
	Group on/off	●
Indoor unit monitoring	Online status	●
	Room temperature	●
	Error status	●
	Operating mode	●
Outdoor unit monitoring	Operating mode	●
	Lock status	●
	Fan speed	●
	Set temperature	●
	Outdoor ambient temperature	●
	Error status	●
LAN access		●
Dimensions (HxWxD)(mm)		225x128x28
Power supply		12V DC

● With this function

▬ Without this function

KNX Gateway

Full Integration

The KNX Gateway enables full integration of Carrier VRF systems with home and building management systems built on the KNX network communications protocol. KNX is the only global standard for housing and building control, and has been adopted by 70% of Europe's smart home market.

Network Flexibility

The gateway can be connected to indoor units' XYE or D1D2E ports directly.
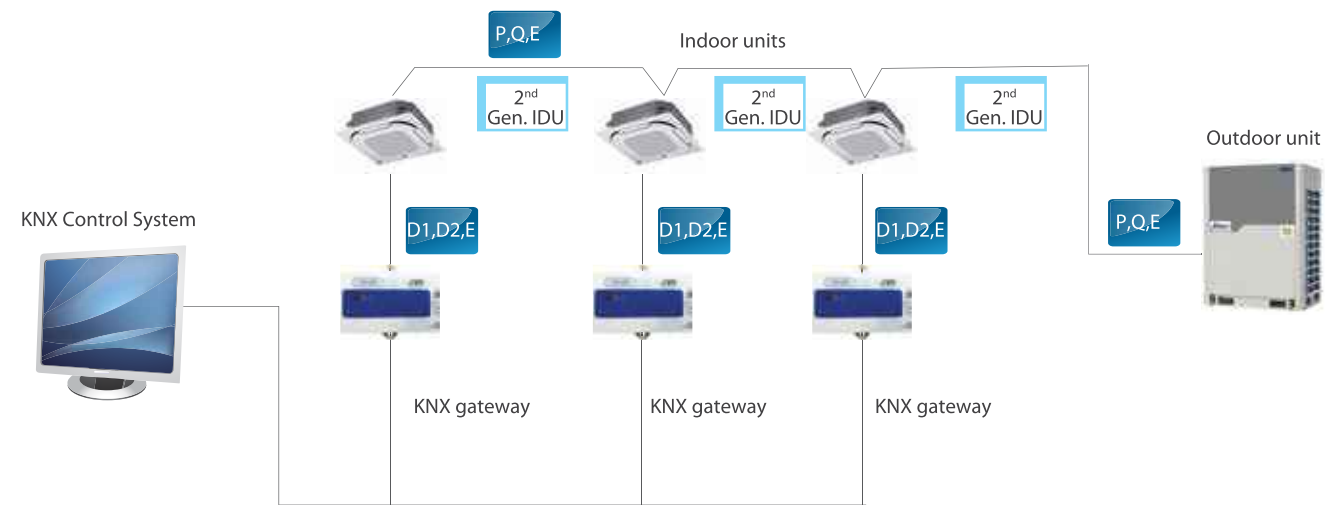
Features

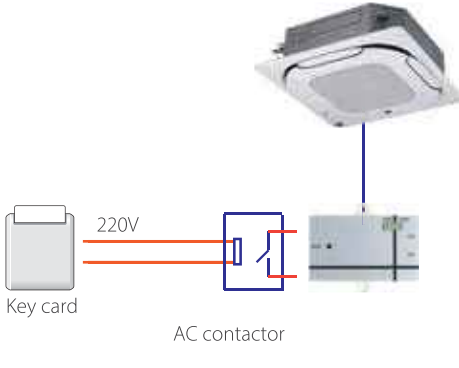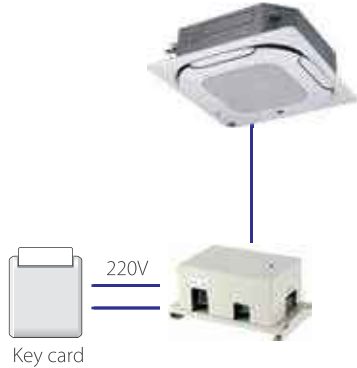| Model	NW-KNXA-CM	
Max. number of indoor units		1
Control	On / Off	●
	Mode selection	●
	Temperature setting	● (1℃ steps)
	7-speed fan control	● (3-speed)
	Swing	●
Monitoring	On / Off	●
	Mode selection	●
	Temperature setting	●
	Fan speed	●
	Swing	●
	Room temperature	●
	Error alarm	●
Dimensions (HxWxD)(mm)		85×51×16
Power supply		29VDC (KNX bus supply)
Indoor unit series		2nd generation DC IDU

Hotel Key Card Interface Modules

Full Integration

The Hotel Key Card Interface Modules enable power supply to indoor units to be integrated with hotel key card power supply management systems, which are designed to save energy by only running appliances whilst guests are present in their room.

Features

Model	CA-HKCW	CA-HKCS
Appearance		
Network flexibility	220V Key card AC contactor	220V Key card
Auto restart	●	●
Compatiblity	Remote and wired controller	Remote and wired controller
Dimensions (HxWxD) (mm)	15.5x86x72.8	87x150x70
Power supply	5V DC (Supplied by indoor unit)	5V DC (Supplied by indoor unit)

Infrared Sensor Controller
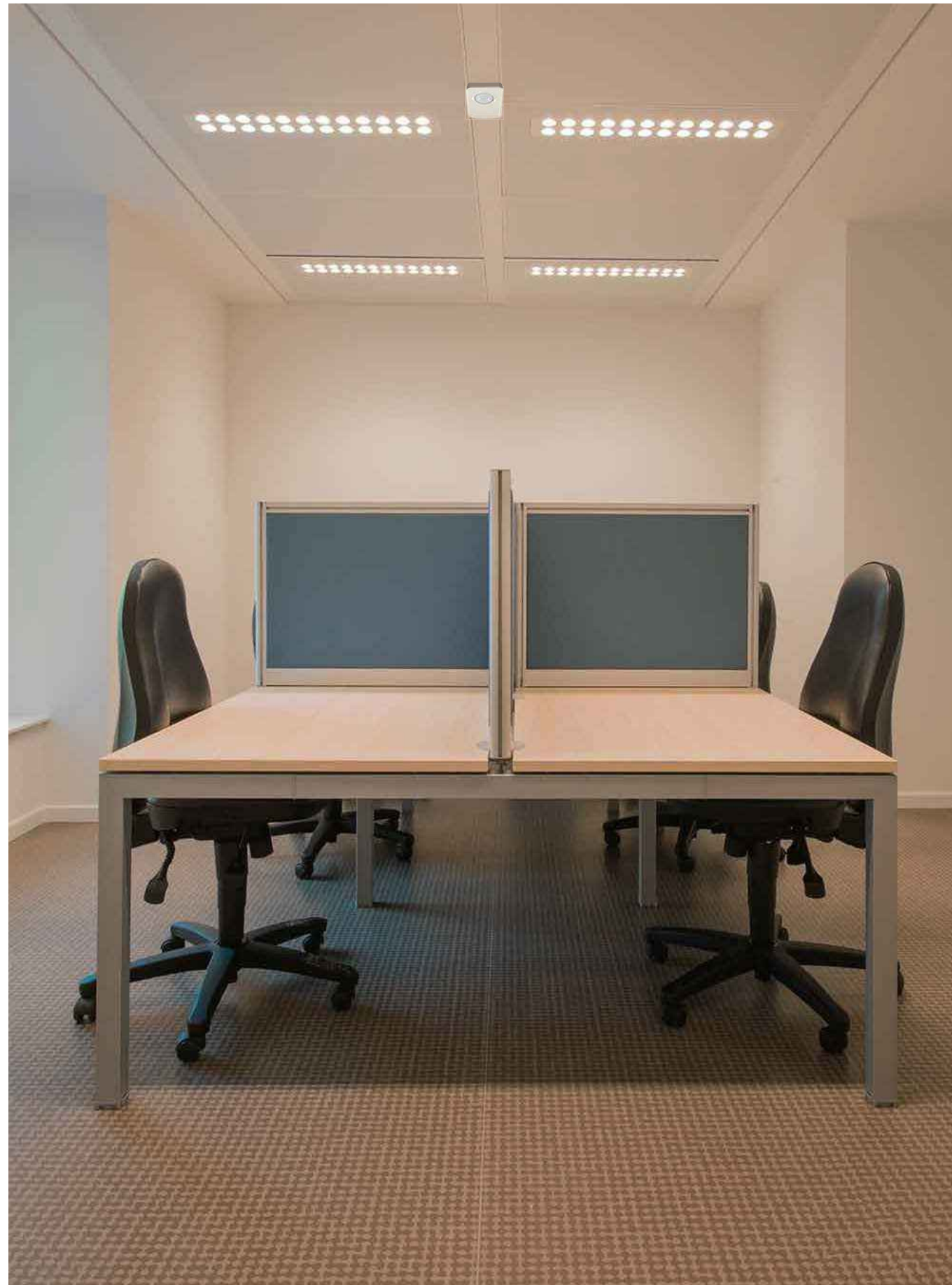
Full Integration

Using infrared sensors to detect movement, the CA-NIM09 Infrared Sensor Controller automatically turns indoor units on or off upon sensing that the room is occupied or unoccupied. Suitable for hotels, offices, conference rooms and residences, the Infrared Sensor Controller ensures climate control whilst minimizing energy consumption.

Features

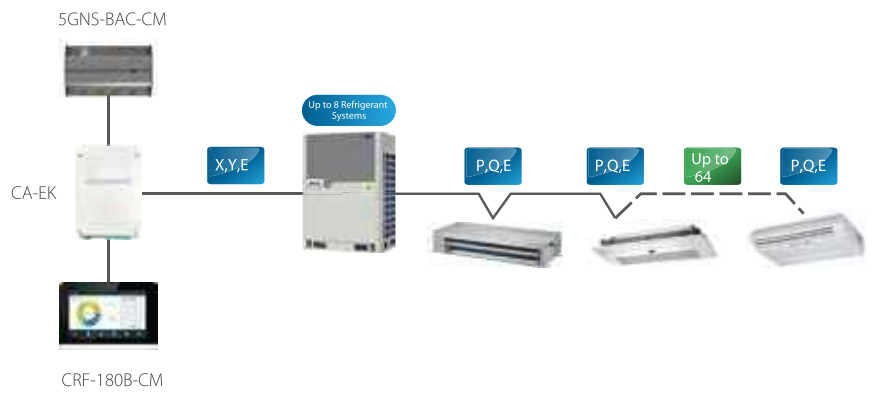| Model	CA-IS
Appearance	
Network flexibility	
Dimensions (HxWxD)(mm)	Sensor 46x30x25.6, Control box 86x72.8x15.5
Power supply	5V DC (Supplied by indoor unit)

XYE Extension Kit

Simple Design

The CA-EK is used to extend the XYE port of outdoor unit as the 2-way one which can connect to 2 Central Controllers or gateways.

Features

Model	CA-EK
Max. number of refrigerant systems	8
Wiring flexibility	5GNS-BAC-CM Up to 8 Refrigerant Systems CA-EK X,Y,E P,Q,E P,Q,E Up to 64 P,Q,E CRF-180B-CM
Dimensions (H×W×D)(mm)	128X225X28
Power supply	12V DC
Outdoor unit series	all series*

Diagnosis Software

Monitor and Diagnose

Carrier's VRF Diagnosis Software tool is used to monitor VRF systems and diagnose system errors.
System settings and operating parameters can be accessed easily and data logs can be reviewed for fault prevention purposes.

Features

Model		VRF-DIAG-B
Max. number of indoor units		64
Max. number of outdoor units		4
Max. number of refrigerant systems		1
Control	Mode selection	●
	Temperature setting	●
	Fan speed	●
Outdoor unit monitoring	Operating mode	●
	Capacity	●
	Compressor operating frequency	●
	Operating current	●
	Error status	●
	Temperatures	T3,T4,Tp (See note 1)
	Valve statuses	SV2, SV4, SV5, SV6, ST1 (See note 2)
	EXV position	●
Indoor unit monitoring	Operating mode	●
	Capacity	●
	Fan speed	●
	Address	●
	Temperatures	T1, T2, T2B, TS (See note 3)
	EXV position	●
Error codes		●
Toubleshooting		●
Data logs		●
Diagrams		System schematic, refregetrant flow diagram, parameter chart
Languges supported		English

● With this function
▬ Without this function
Notes:
1. Heat exchanger temperature, outdoor ambient temperature, discharge temperature.
2. Discharge temperature control valve, oil return valve, defrosting valve, EXV bypass valve, four-way valve.
3. Indoor ambient temperature, indoor heat exchanger mid-point temperature, indoor heat exchanger outlet temperature, set temperature.

VRF AHU Control Box

High Efficiency

AHU kit facilitates raising the EER/COP of the complete AHU system.

Wide Capacity Range

Four kits can be used in parallel, giving an overall capacity range of 0.8-80HP.

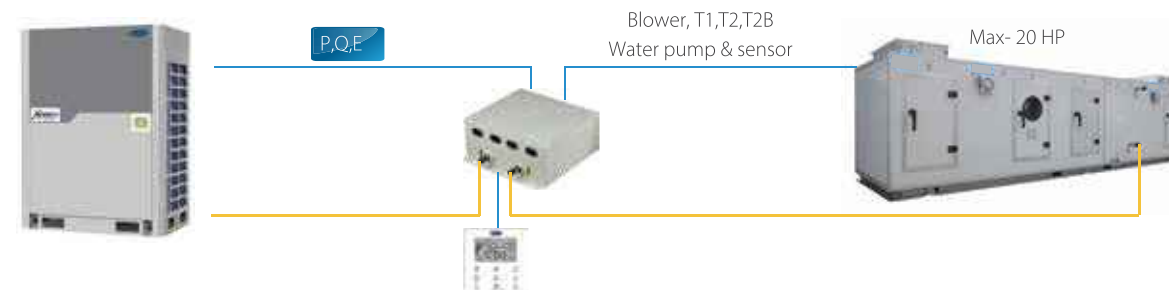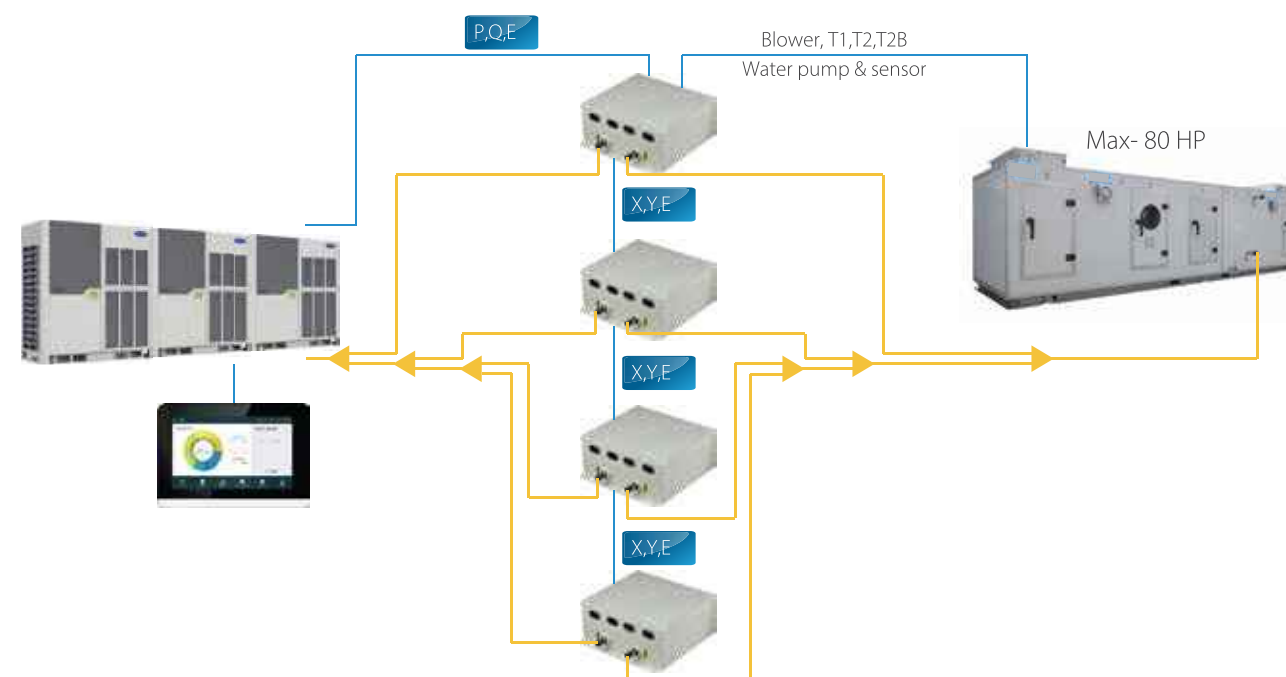| AHUKZ-00D	AHUKZ-01D	AHUKZ-02D	AHUKZ-03D
0.8-3HP	3.2-6HP	8-12HP	14-20HP

Compatible with All VRF Systems

AHU kits are compatible with all Carrier VRF outdoor units and can be used together with all types of Carrier VRF indoor units.

Single AHU Control Box Connection

P,Q,E
Blower, T1,T2,T2B
Water pump & sensor
Max- 20 HP

Multi AHU Control Boxes Connection

P,Q,E
Blower, T1,T2,T2B
Water pump & sensor
X,Y,E
X,Y,E
X,Y,E
Max- 80 HP

Specifications

| Model name	AHUKZ-00D	AHUKZ-01D	AHUKZ-02D	AHUKZ-03D
Capacity A (kW)	2.2≤A<9	9≤A≤20	20<A≤36	36<A≤56
Power supply	220-240V~50/60Hz			
Liquid pipe (in/out) (mm)	Φ9.53/Φ9.53	Φ9.53/Φ9.53	Φ12.7/Φ12.7	Φ15.9/Φ15.9
Dimension (WxHxD) (mm)	341x133x395			
Weight (kg)	5.7	5.7	5.8	6.0
Operation range (cooling on coil) (oC)	17-43			
Operation range (heating on coil) (oC)	10-30			
Applicable outdoor units	Heat pump / heat recovery / cooling only			

Selection Software"CSSP"

High Efficiency

Carrier's advanced design automation tool can be used by designers, consultants and distributors to greatly reduce the time and effort that must be devoted to the selection process. The software provides quick and convenient selectable options for users, supports multiple languages, and greatly improves the selection process.

The Selection Software provides distributors' sales team with a comprehensive selection of system design reports and calculations. Load calculations may be on either an initial estimate basis or detailed room-by-room basis. Based on the indoor units, outdoor units and controllers selected, the software produces detailed system layout diagrams and piping requirement calculations.

Piping diagram
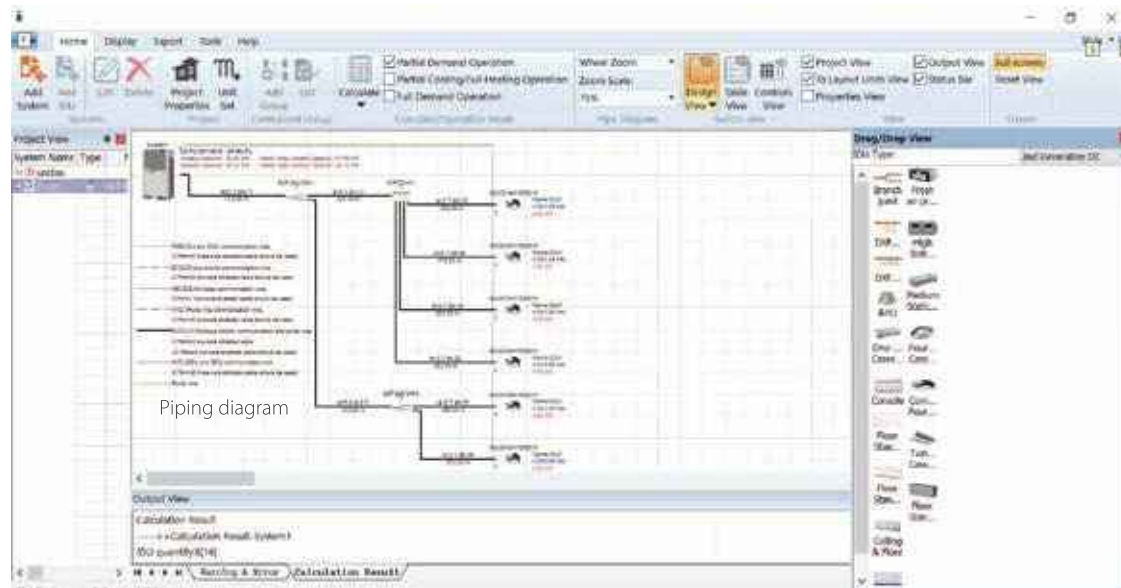
CAD View
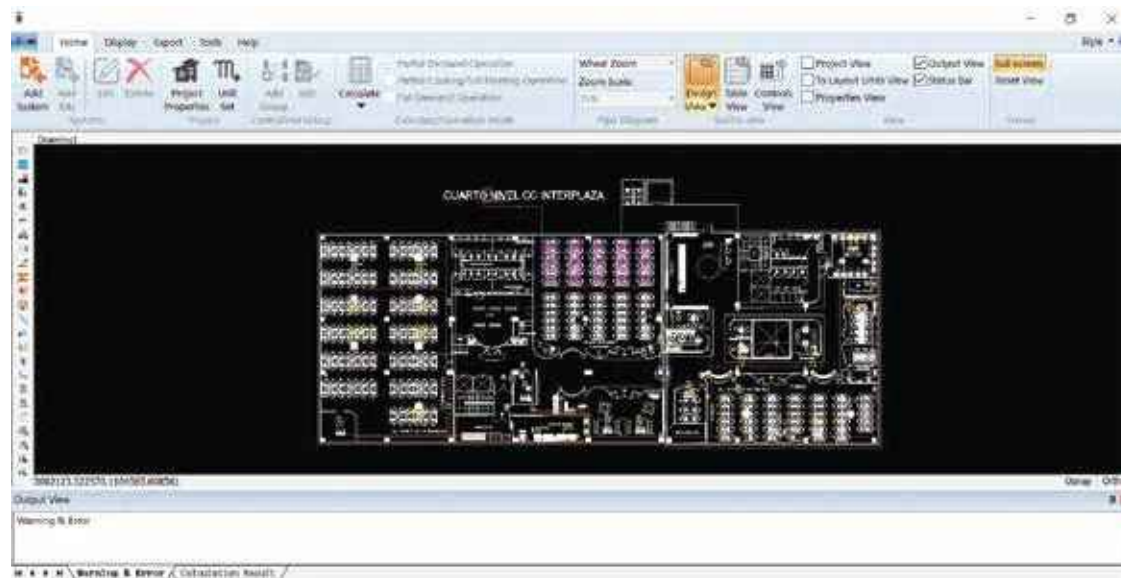
Branch Pipe

Model	Appearance	Model name	Packing Size (mm)	Gross Weight (kg)	Description
VX/VXi Series		BJC-02E-CM(i)	255×150×185	2.0	Connecting two outdoor units
		BJC-03E-CM(i)	345×160×285	4.3	Connecting three outdoor units

A*:The total capacity of indoor units which is connected to this branch joint

Dimensions
Outdoor Branch Joints

Model	Gas side joints	Liquid side joints
BJC-02E-CM(i)		
BJC-03E-CM(i)		

Model	Gas side joints	Liquid side joints
BJC-02-CM(i)		
BJC-03-CM(i)		
BJC-04-CM(i)		