

3G202101



General Catalogue for Australia

HVAC & Building Technologies Division

Midea Group

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Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document.

HVAC Building Technologies 2021

MDV

MDV was created in 1999 under Midea's HVAC & Building Technologies Division (HBT) as a professional climatic solution brand for sales via specialized air-conditioning companies. MDV's brand portfolio (range of products produced under MDV brand) consists of cutting-edge technology and commercial and industrial equipment. These include VRF (Variable Refrigerant Flow) systems, chillers and fan-coils, compressor condensing units, light commercial air-conditioners, used in commercial segment. Focusing on the professional channel for more than 10 years, MDV brand is recognized worldwide as one "professional HVAC solutions".



CONTENTS

05 Company Introduction

Midea Group

HBT Manufacture Bases

17 VRF Products

29 VRF V6

37 VRF V6i side discharge

41 VRF V6R heat recovery

49 VRF V4+W

53 Mini C VRF

57 VRF Indoor Unit

105 Heat Recovery Ventilator

109 PURO - AIR KIT

113 VRF Control System

161 VRF Branch Pipes

171 Heat Pump

173 M-thermal Mono A Series

198 Commercial Heat Pump Water Heater

206 Swimming Pool application

213 Water System

208 Large Tonnage Chiller

227 AC Fan Coil Unit

265 DC Fan Coil Units

298 Control Solutions

305 Module Air Handling Unit

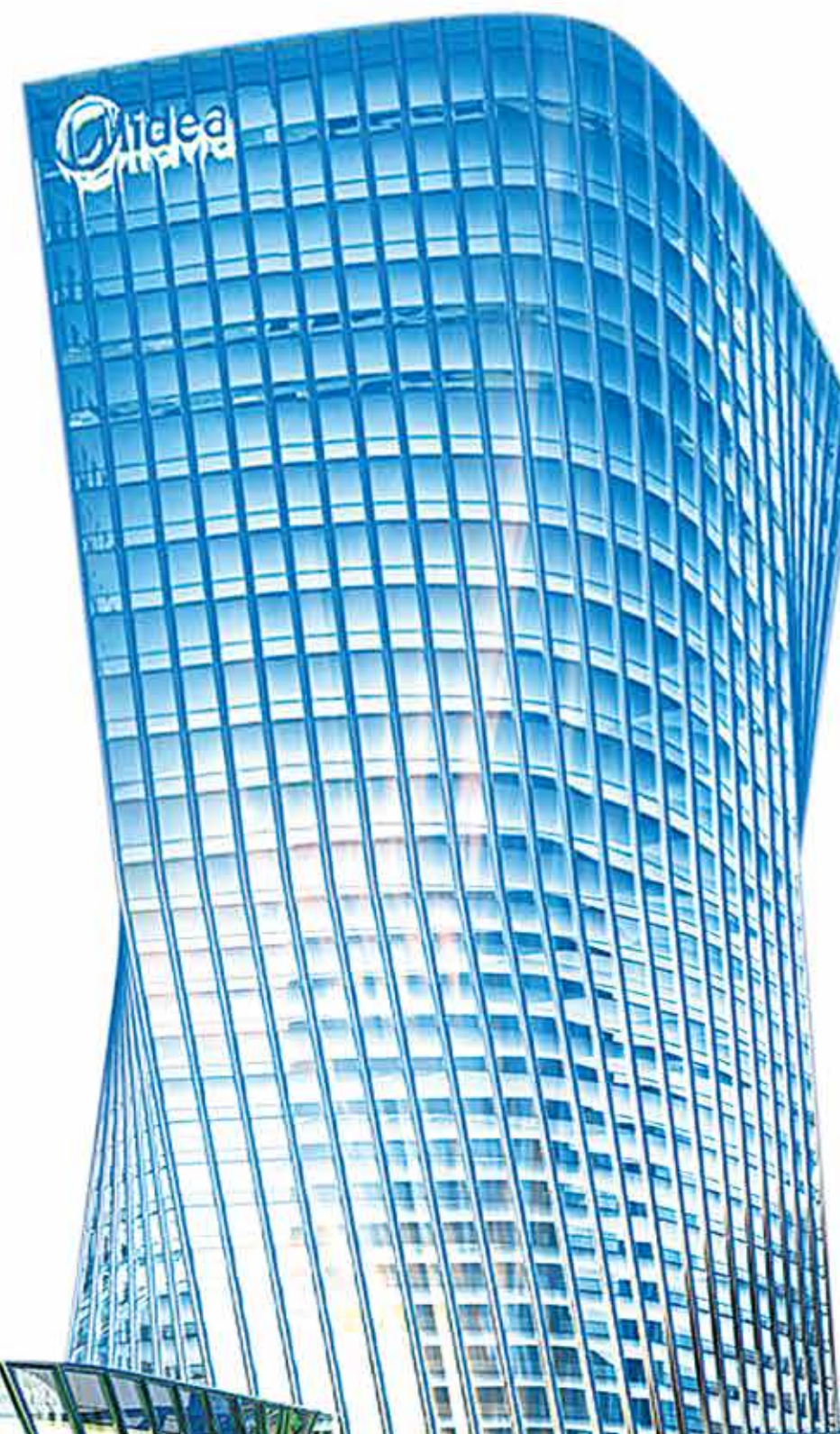




Company Introduction

Established in 1968, Midea Group has grown from what was once a local workshop into a leading consumer appliance and air conditioning system manufacturer, operating around the world. 50 years of persistent growth has brought its global turnover to 39.5 billion USD in 2018.

Midea Group also entered Fortune 500 in 2017 as the only Chinese home appliance manufacturer.

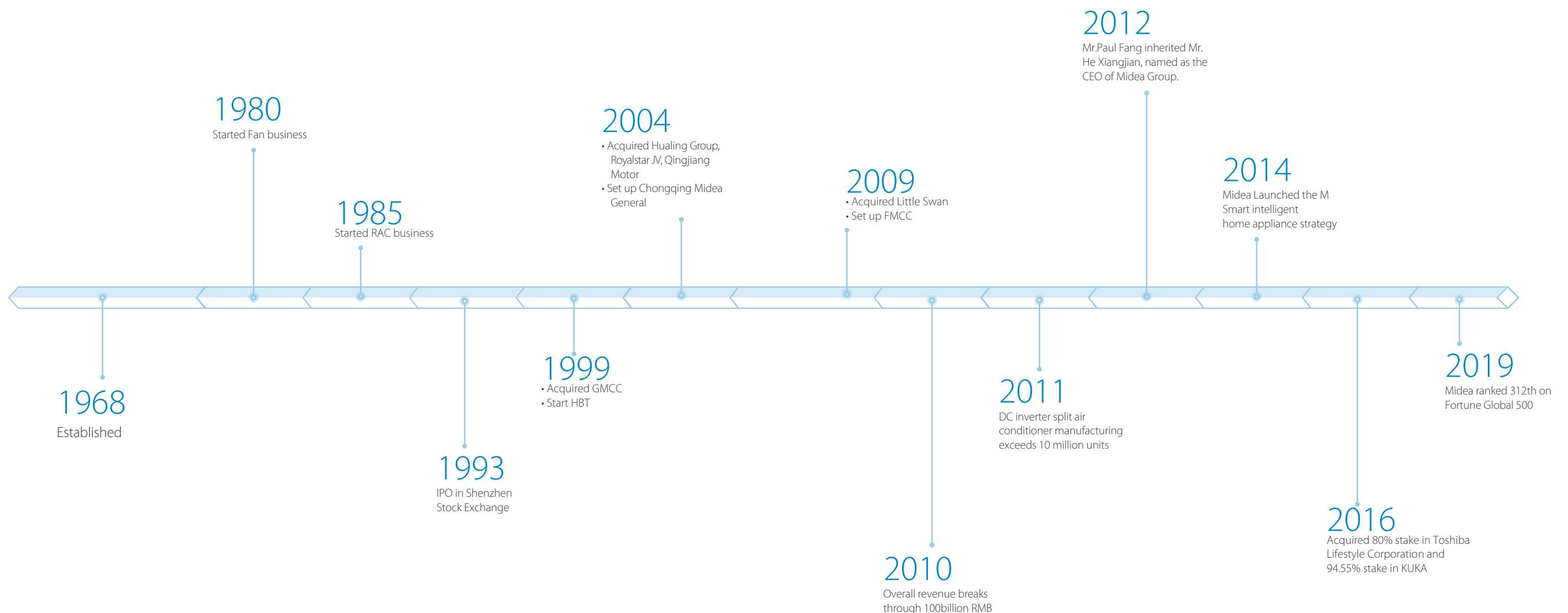


One of the world's leading technology groups in the home appliance and HVAC industries, and a pioneer in the smart home sector.

- Founded in 1968, by He Xiangjian
- Relying on more than 30 years of appliance manufacturing experience to provide the highest quality products worldwide
- Midea electric Listed on the Shenzhen Stock Exchange in 1993 (SZ:000527)
- Midea Group Wholly Listed in the Stock Market in 2013 (SZ:000333)

World-class production & the largest manufacturer in the industry

- The largest white goods manufacturer and exporter in China
- World-class manufacturing & testing facilities to meet our customers' standards
- 16 domestic production bases, covering over 7 million square meters of land
- 15 overseas production facilities, and more than 20 overseas subsidiaries

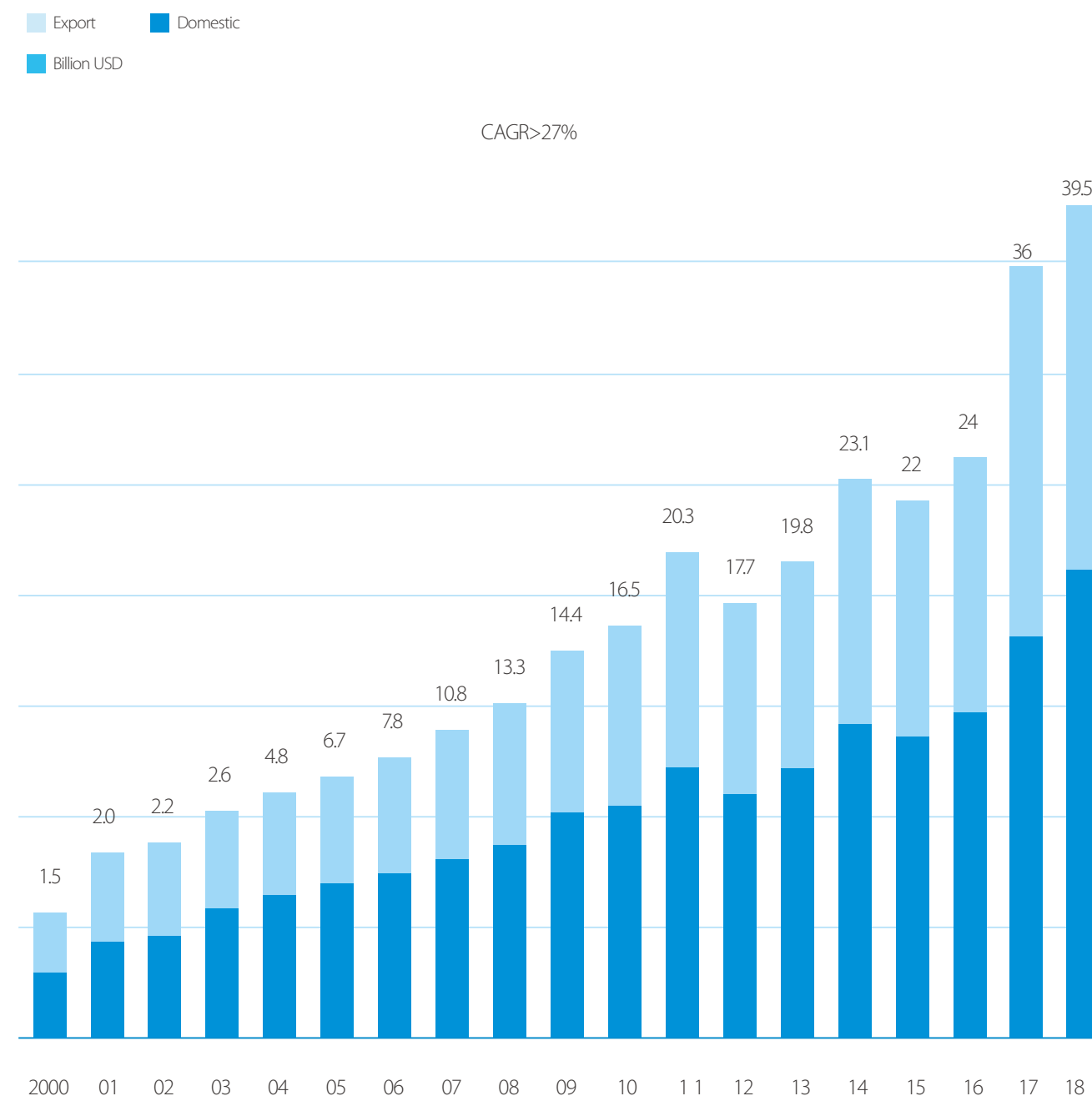


China's 1st fully vertically Integrated appliance manufacturer

8 products divisions including HVAC, SDA, compressors and motors - fully integrated under Midea's Shunde HQ provides a one-stop shopping experience for clients.

Vertical integration means greater efficiency and quality control. The result is products with world class components, reliability, performance, and stability.

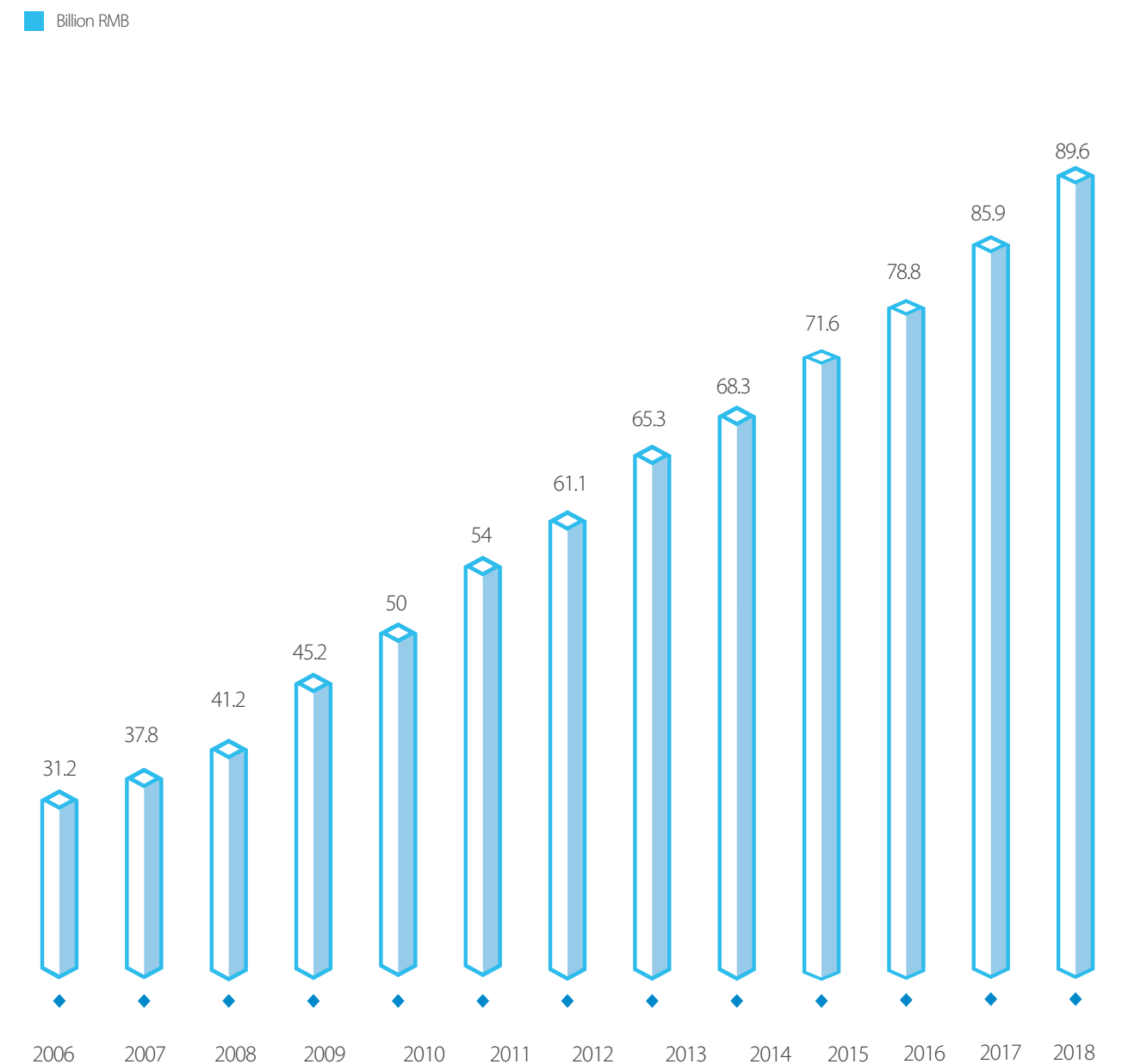
Turnover of Midea Group from 2000-2018



Honors and achievements:

- The brand value of "Midea" reached 13 billion USD, ranking as the 7th on Chinese Top 100
- Most Valuable Chinese Brands in 2018 (by Rui Fu Global Rank in 2018)
- 39.5 billion USD sales revenue in 2018

Midea Brand Value 2006-2018



Midea HVAC & Building Technologies Division (HBT)

As a key part of Midea Group, Midea HVAC & Building Technologies Division is a global HVAC industry leader and premium supplier for integrated building solutions. Starting from 1999 Midea, through R&D and technological innovations, has contributed significantly to commercial product development.

By cooperating with the international enterprises, Midea HBT has achieved great success in the commercial air-conditioner market and established thousands of reference projects all over the world.

There are four production bases: Shunde, Chongqing, Hefei and Italy.

HBT Shunde: 38 product lines focusing on VRF, Split Products, Heat Pump Water Heaters, and AHU/FCU.

HBT Chongqing: 14 product lines focusing on Water-cooled Centrifugal/Screw/Scroll Chillers, Air-cooled Screw/Scroll Chillers, and AHU/FCU.

HBT Hefei: 11 product lines focusing on VRF, Chillers, and Heat Pump Water Heaters.

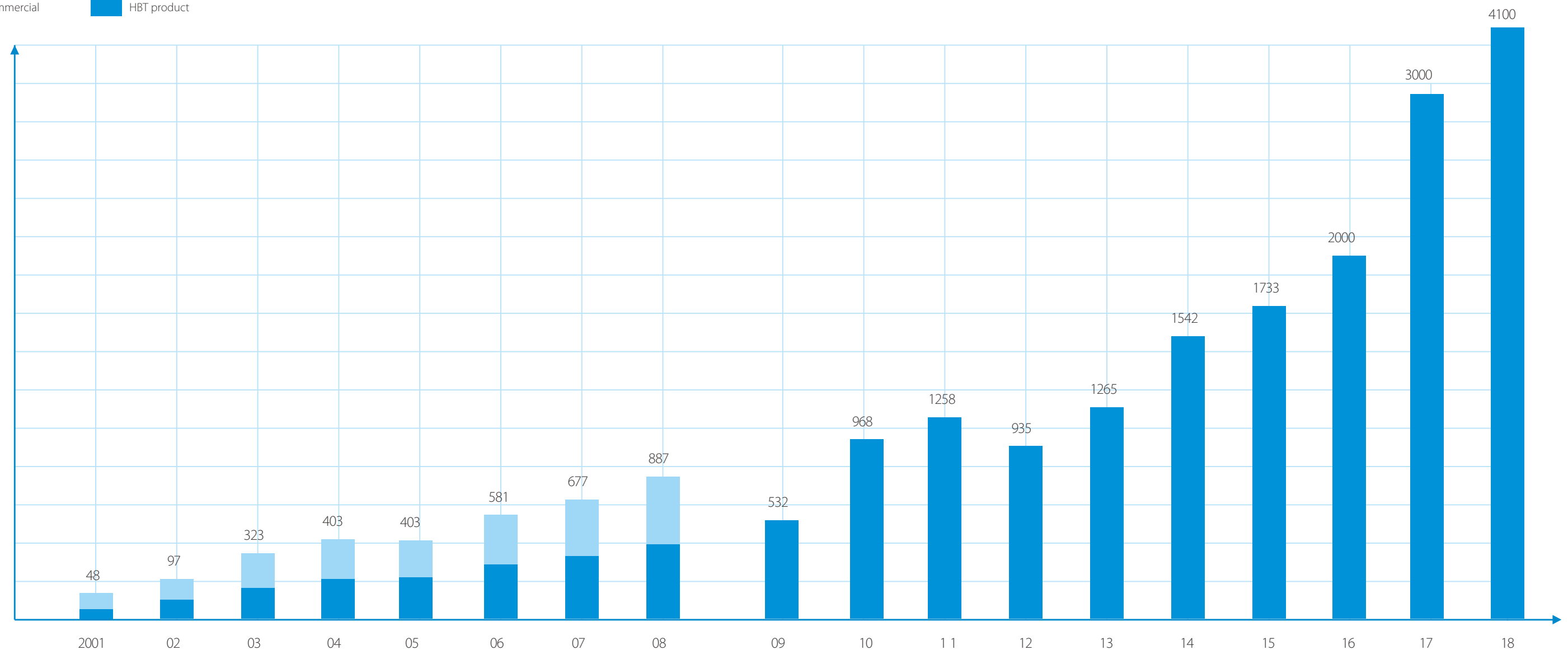
Clivet in Italy: 50,000 m² workshop in Feltre and Verona, covering products such as ELFO System, Hydronic, WHLP, Packaged, Split and Close Control and so on.

Midea HBT sales turnover

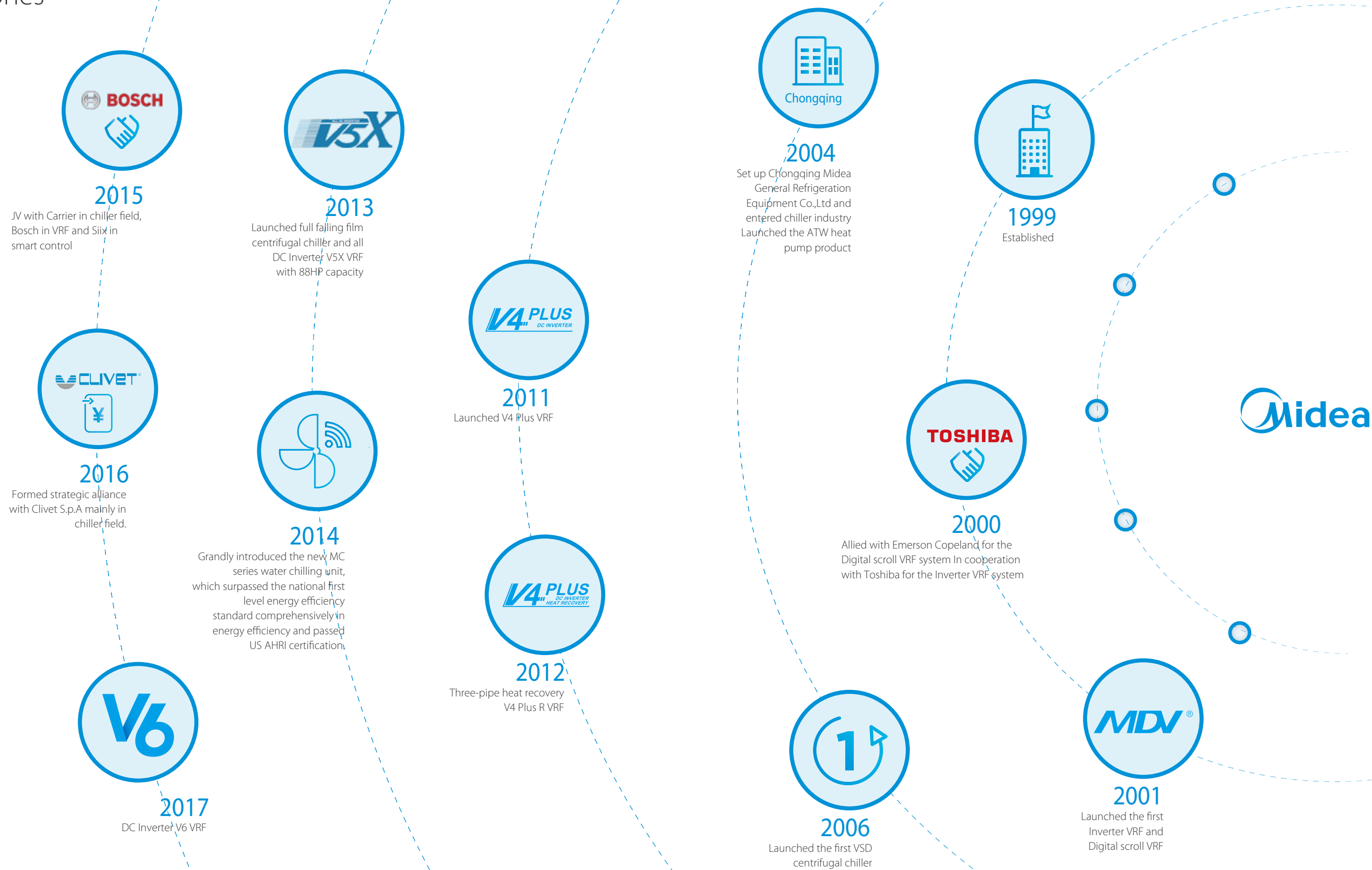
Millions,USD

Light commercial HBT product

HBT PRODUCT : CAGR > 26%



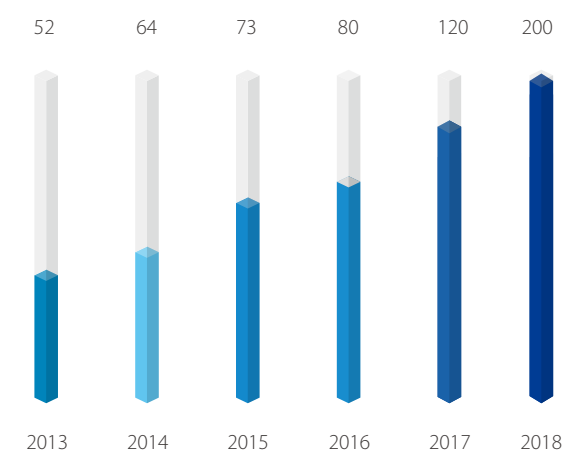
Milestones



Midea HBT Customer Experience Centers and R&D Centers



Midea HBT investment in R&D



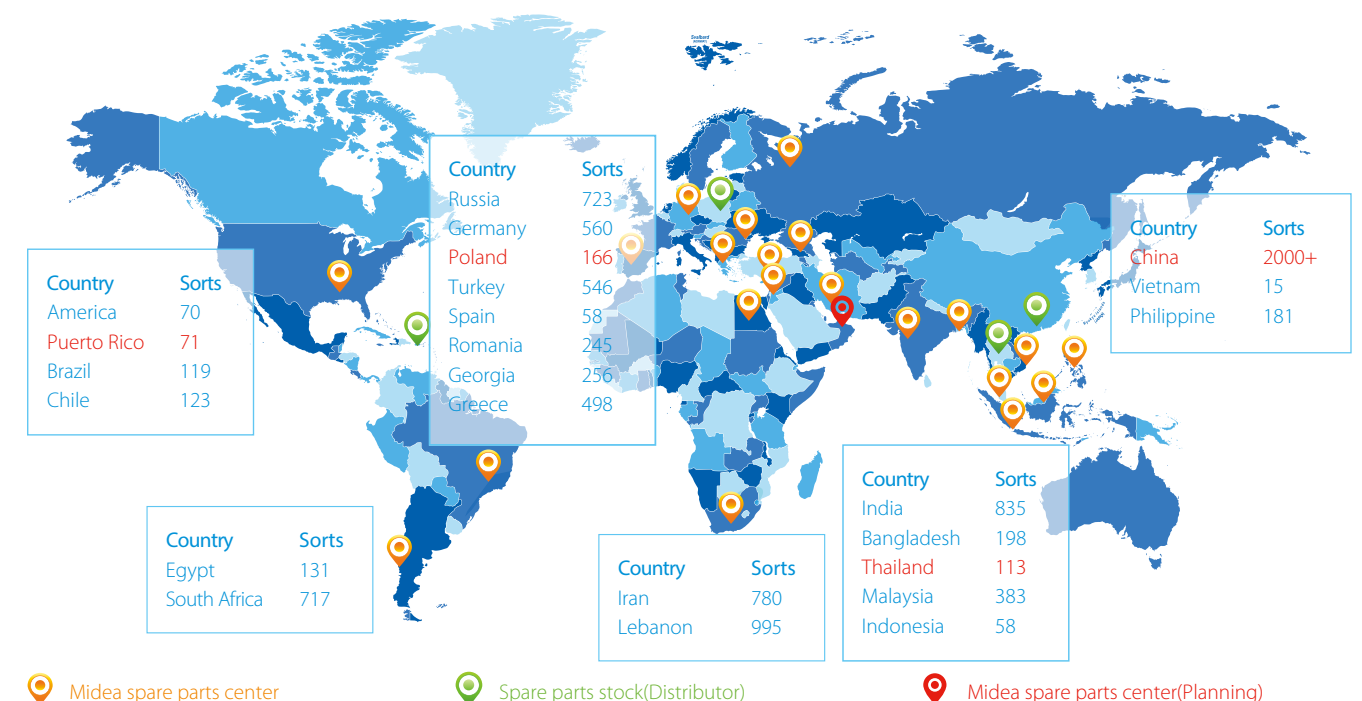
- Continue to Increase Investment (5 % + of Annual Revenue)
- Around 550 R&D engineers, 20 Ph.Ds. + 12 Foreign Experts
- 60+ various types of labs, and has been invested over \$100 million
- More than \$ 10 million investment for 12 new testing facilities
- Core Technology Innovation on VRF & Chiller

Midea Overseas Training Centers & Spare Parts Centers

Midea HBT Overseas Training Centers



Midea HBT Spare Parts Network



Regional training centers help the customers to cultivate the qualified engineer team and display the product applications.

Overseas spare parts network aims at providing quicker and better spare parts service to satisfy the customer needs.

Outdoor Units

VRF V6
VRF V6i side discharge
VRF V6R heat recovery
VRF V4+W
Mini C VRF

INDOOR UNITS

VRF Indoor Units
Heat Recovery Ventilator
Puro-Air Kit

CONTROL SYSTEMS






Remote Controllers
Wired Controllers
Central Controllers
Data Converter
Network Control System
BMS Gateways
Accessories

BRANCH JOINTS

Branch Joints
Branch Headers



Outdoor Unit Lineup

HP			2.5	3	4	4.5	5	6	6.5		7	8	9	10	12	14	16	18	20	22	24	26	28	30	32	34-54	56-96
Air Cooled - Heat Pump	VRF V6											●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	VRF V6i - Side Discharge										●	●	●	●	●												
	Mini VRF - Mini C Series			●	●	●	●	●																			
Air Cooled - Heat Recovery	VRF V6R											●		●	●	●	●	●									
Air Cooled - Heat Recovery	V4+W											●		●	●		●	●	●	●	●	●	●	●	●	●	●

● Single unit ● Combination unit

Outdoor Unit Functions

Functions		Air Cooled - Heat Pump			Air Cooled - Heat Pump		Air Cooled - Heat Recovery	Air Cooled - Heat Recovery
		VRF V6	VRF V6i - side discharge		Mini VRF - Mini C series		VRF V6R	V4+W
Key Technology	META technology	●	×		×		●	●
	Zen air	●	●		●		●	●
	Doctor M.	●	×		×		●	●
High Efficiency	Full inverter compressors	●	●		●		●	●
	Enhanced Vapor Injection (EVI) compressor	●	×		×		●	●
	Full DC fan motors	●	●		●		●	●
	Plate Heat Exchanger (PHE) subcooling	●	×		×		●	●
	G-type heat exchanger	(24-●HP)	×		×		×	×
	7 levels of energy management	40-100%	×		×		40-100%	40-100%
High Reliability	Duty cycling	●	×		×		●	●
	Precise oil control	●	●		●		●	●
	Backup operation (compressor)	●	×		×		●	●
	Backup operation (module)	●	×		×		●	●
	Anti-corrosion protection	●	●		●		●	●
	UL anti-corrosion certificate	●	×		×		×	×
	Refrigerant cooling PCB	●	●		●		●	●
	Real-time refrigerant amount monitoring	●	×		×		●	●
	Auto snow-blowing function	○	×		×		○	○
	Dust-clean function	○	×		×		○	○
	Gas leak protection	×	×		×		●	●
Enhanced Comfort	Silent mode	Night silent mode+silent mode+super silent mode	×		×		Night silent mode+silent mode+super silent mode	Night silent mode+silent mode+super silent mode
	Intelligent defrosting technology	●	●		●		●	●
	Continuous heating (alternate defrost)	×	×		×		●	●
	Connectable to high temperature hydro module for hot water	×	×		×		●	●
	Multiple priority modes	●	●		●		×	×
Easy Installation and Service	Auto addressing	●	●		●		●	●
	Automatic refrigerant charging	○	×		×		○	○
	Automatic refrigerant recycling	○	×		×		○	○
	Multi-functional diagnosis box	○	×		×		●	●
	Maintenance mode	●	×		×		●	●
	Oil balancing pipe between modules not required	●	●		●		●	●
	Triple configurations	●	×		×		●	●
	Digit display	4 digit 7-segment display	3 digit 7-segment display		3 digit 7-segment display		4 digit 7-segment display	4 digit 7-segment display
	High external static pressure	120Pa	×		×		80Pa	80Pa

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

HIGH EFFICIENCY

High Efficiency Enhanced Vapor Injection (EVI) Compressor

The enhanced vapor injection DC inverter compressor increases refrigerant circulation and improves both cooling and heating capacity.

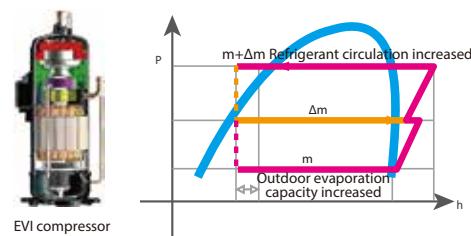
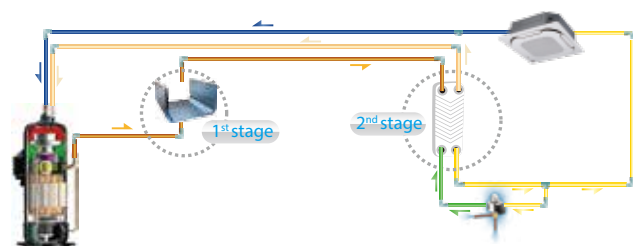


Plate Heat Exchanger (PHE) Subcooling

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



High Efficiency G-Type Heat Exchanger

The large capacity units use a high efficiency G-type heat exchanger which heat exchanger area is 1.5 times of the U-type heat exchanger.



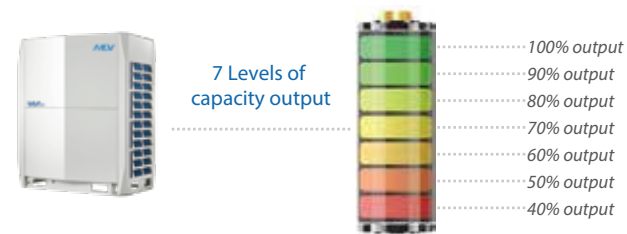
3-rows G-type heat exchanger



Super big size fan

7 Levels of Energy Management

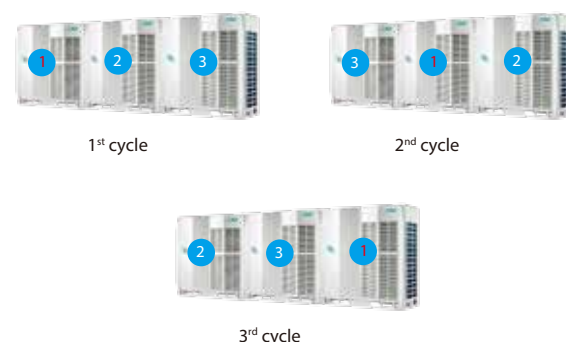
For projects with temporary electricity supply restrictions, the outdoor unit supports 7 levels of energy management which can be set to output 40-100% capacity. It prevents tripping during electricity supply restriction conditions and remains system continue to operate.



HIGH RELIABILITY

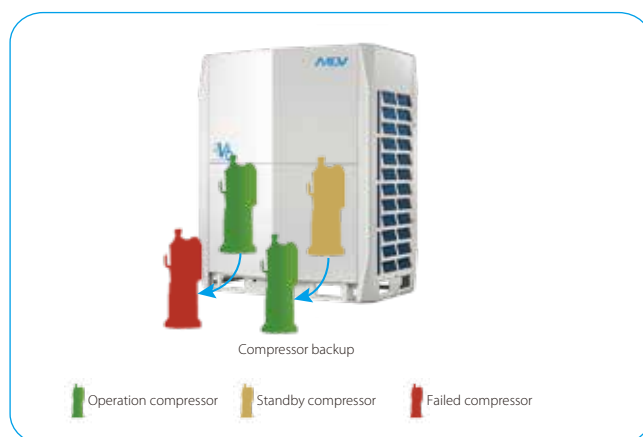
Duty Cycling

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.



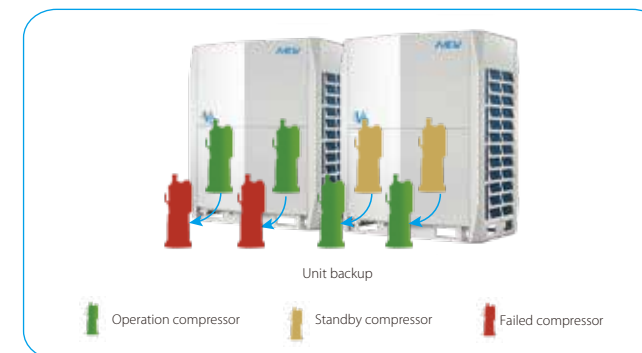
Double Back-up Operation Compressor backup

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.



Unit backup

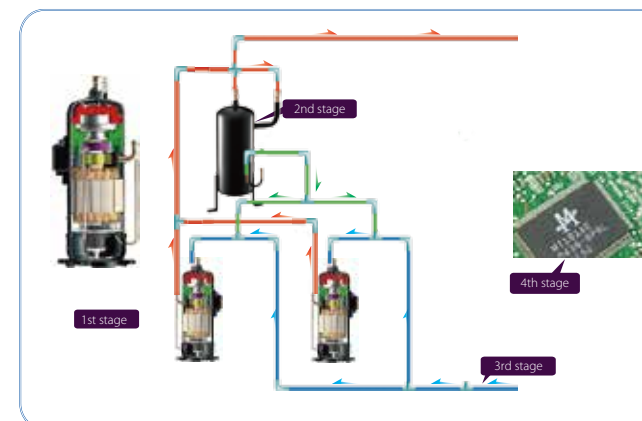
In a multi-unit system, if one module fails, the other modules provide backup so that the system can continue operating.



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.



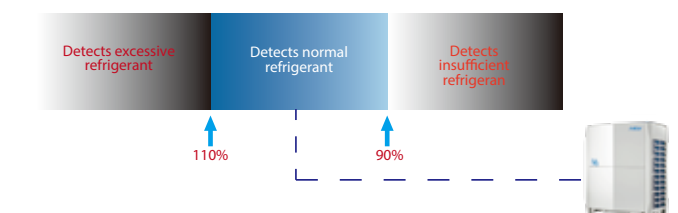
Refrigerant Cooling PCB

The unit 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 unit can detect excessive or insufficient amounts of refrigerant, to ensure consistent performance.



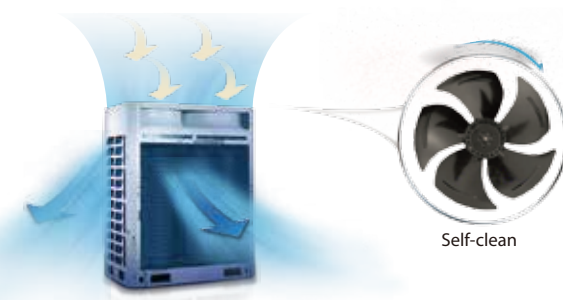
Auto Snow-blowing Function

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



Dust-clean function

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



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.



01 Screws / bolts / gaskets

Standard products:
300h of neutral salt mist
Heavy anti-corrosion products:
720h of neutral salt mist



02 Fan motor

Standard products:
96h of neutral salt mist for IDU
168h of neutral salt mist for ODU
Heavy anti-corrosion products:
1000h of neutral salt mist for ODU



03 Electric control box case

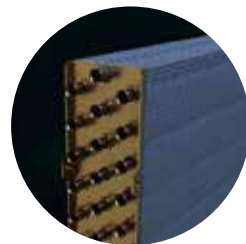
Standard products:
96h of neutral salt mist
Heavy anti-corrosion products:
500h of neutral salt mist

Outdoor Unit can resist 27 years of simulated severe corrosion under a salt contaminated traffic environment



UL Anti-Corrosion Certificate

It has been certified by UL that our VRF outdoor unit can withstand 27 years of simulated severe corrosion under a salt contaminated traffic environment.



04 Heat exchanger aluminum foil

Standard products:
200h 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:
48h of neutral salt mist for IDU
150h of neutral salt mist for ODU



05 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:
800h of neutral salt mist
2000h of moisture and heating test
800h of light aging test

WIDE CAPACITY RANGE

Wide Capacity Range

MDV VRF has an extensive capacity ranging from 2.5HP to 96HP, meeting all customer requirements from small to large buildings.



Wide Product Portfolio

MDV VRF supplies a wide product portfolio including air cooled heat pump VRF, Air cooled heat recovery VRF, air cooled cooling only VRF and water cooled VRF to meet the needs of various application scenarios in the market.



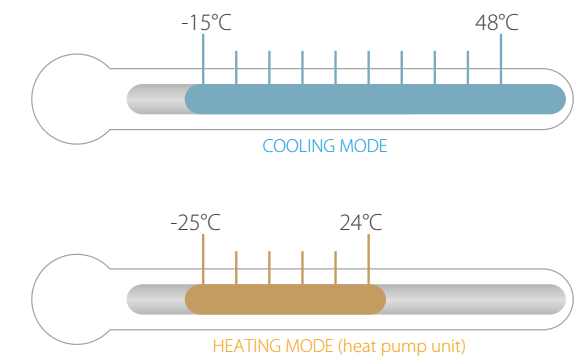
Wide Range of Indoor Units

MDV provides 12 types and more 100 models of VRF indoor units to meet varied customer requirements in a wide range of locations including offices, shopping malls, hospitals and airports.



Wide Operation Range

The VRF system operates stably under extreme conditions, ranging from minus -25°C to 48°C.



Note: the operating temperature range of different series may a little different. Please refer to the specification of each series.

ENHANCED COMFORT

Advanced Silent Technology

4 night silent modes, 3 silent modes and 4 super silent modes selections, provide more freedom and convenience to match the customer needs.

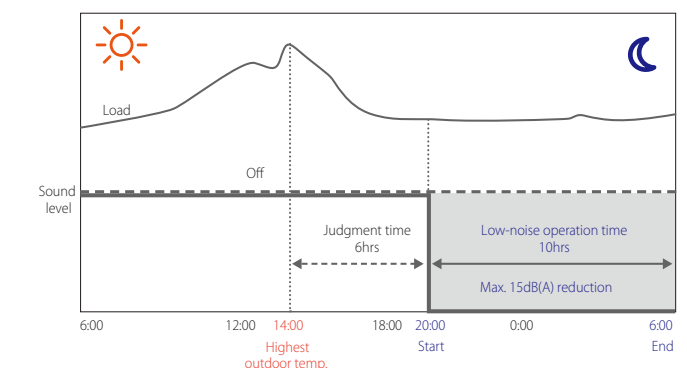


- In night silent mode and silent mode, only maximum fan speed is limited to meet the normal silent requirement.



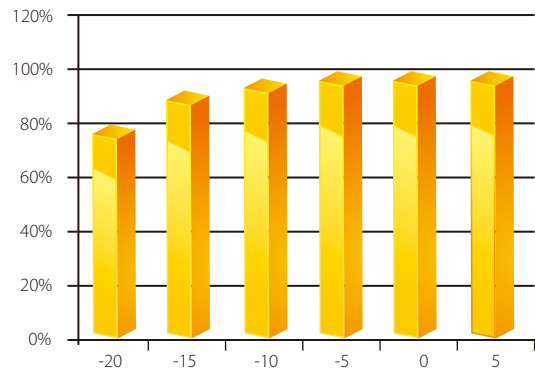
- In super silent mode, both maximum fan speed and compressor frequency are limited to meet higher silent requirement.

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.



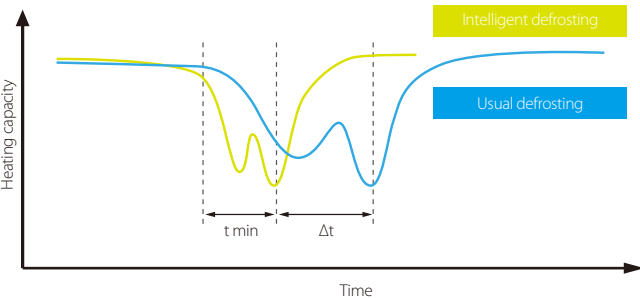
Enhanced Heating Capacity

Thanks to the EVI compressor, the heating capacity can be improved greatly. Heating capacity is 100% of rated capacity at ambient temperatures as low as -5°C and 90% of rated capacity at -15°C.



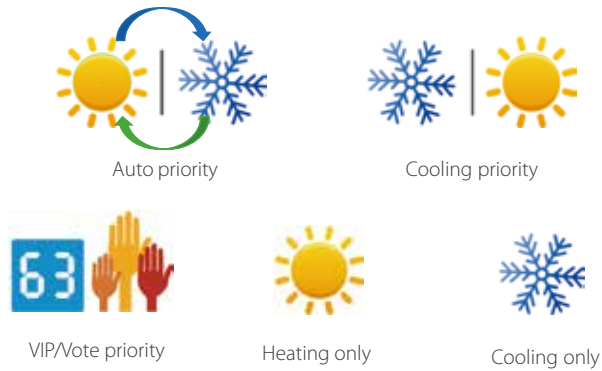
Intelligent Defrosting Technology

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 as four minutes.



Multiple Priority Modes

Multiple priority modes settings, provide more freedom and convenience to match the customer needs.



EASY INSTALLATION AND SERVICE

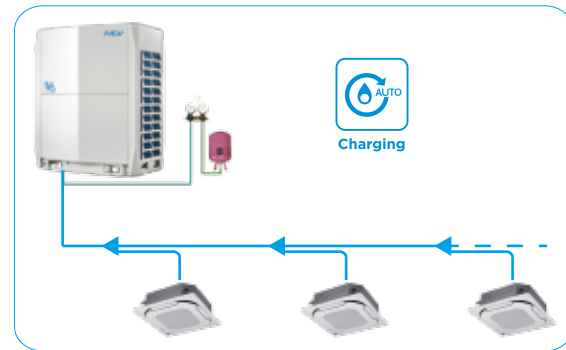
Auto Addressing

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.



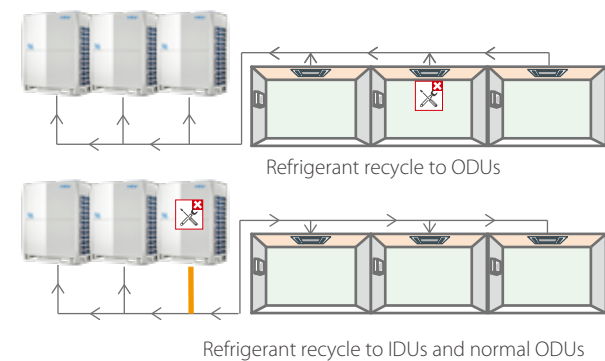
Automatic Refrigerant Charging

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



Automatic Refrigerant Recycling

The refrigerant can recycle to ODUs or IDUs and normal ODUs. Two recycling ways make the maintenance easier and more efficient.



Multi-Functional Diagnosis Box

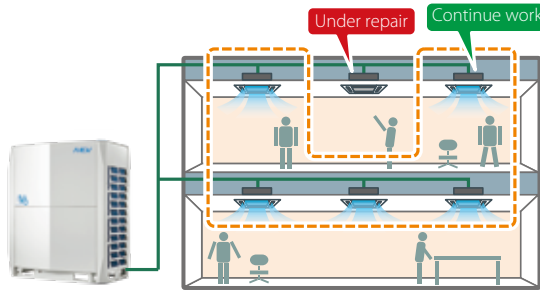
An multi-functional diagnosis box can be installed on the unit's side columns, enabling installation and service engineers to activate Auto-commissioning or check the operating status without removing the front panel. It can also perform automatic data backup of a maximum of 30 sets of error data.



Note: some units are equipped as standard; some units need to customize.

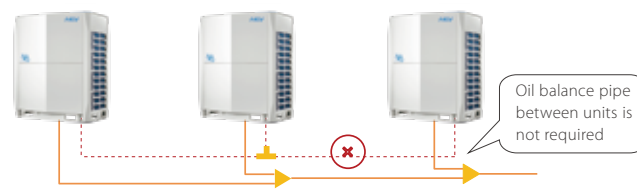
Maintenance Mode

The unit has maintenance mode which allows the shutdown of some indoor units without shutting down the whole VRF system. the maintenance mode can be activated on site during maintenance period as the remaining indoor units continue to operate.



Oil Balance pipe not required

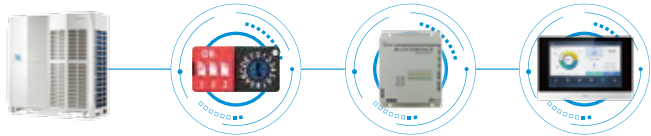
With the new oil management system, there is no need of oil balance pipe.



Triple Configurations

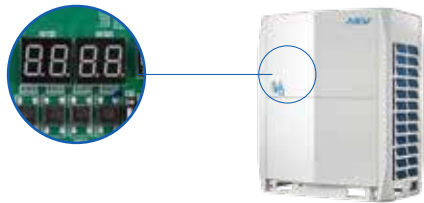
Triple (local/remote/network) configurations greatly simplified installation, commissioning and servicing.

- 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.



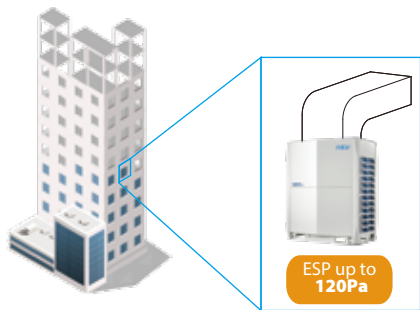
7-segment Digit Display

4 or 3 digit 7-segment display can easy read out of system check information and error code for quick and accurate inspection and diagnosis of the system.



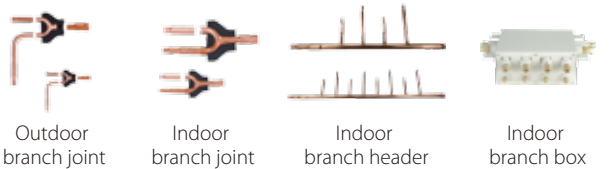
High External Static Pressure

The static pressure of the outdoor unit can be up to 120Pa which facilitates installation of the unit on each floor of high-rise building or on balconies.



MDV Unified Branch Piping

The unified MDV branch piping system is especially designed for simple installation and it also has specifically been designed to optimize refrigerant flow.



Note: Indoor branch box is only available for Mini VRF Series.



Indoor Units
VRF indoor units



Fresh Air Processing Unit
100% fresh air supply



Ventilation
Heat recovery ventilator (HRV)



AHU Connection Kit
Connect to MDV or third party DX AHU



Control Systems
Smart control systems



VRF V6 Series Heat Pump

Optimized design
for small to large
buildings

- ▶ META Technology
- ▶ Zen Air Technology
- ▶ Doctor M Technology
- ▶ Enhanced Vapor Injection (EVI) Compressor
- ▶ Triple Configurations
- ▶ High Efficiency G-Shape Heat Exchanger
- ▶ ESP up to 120Pa
- ▶ Plate Heat (PHE) Subcooling
- ▶ Precise Oil Control Technology
- ▶ Multi Silent Modes
- ▶ Duty Cycling
- ▶ Backup Operation
- ▶ UL Anti-Corrosion Certificate
- ▶ Refrigerant Cooling PCB
- ▶ Auto Snow-blowing Function
- ▶ Dust-clean Function
- ▶ Multi-Functional Diagnosis Box
- ▶ Automatic Refrigerant Detecting/Charging/Recycling

Wide Capacity Range

Starting at 8HP, capacity increases in 2HP increments up to 96HP, which is the world's largest single-system VRF capacity.

8/10/12HP
(with single fan)



14/16HP
(with single fan)



18/20/22HP
(with dual fans)



24/26/28/30/32HP
(with dual fans)



16-64HP



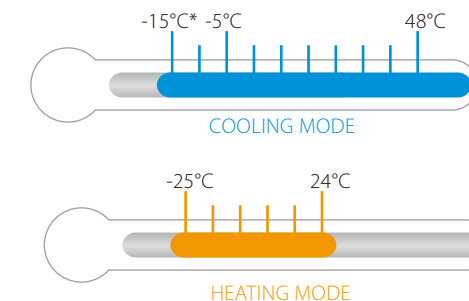
24-96HP



Wide Operating Temperature Range

The V6 VRF can operate stably in a wide ambient temperature range: from -5°C (-15°C*) to 48°C in cooling mode and from -25°C to 24°C in heating mode.

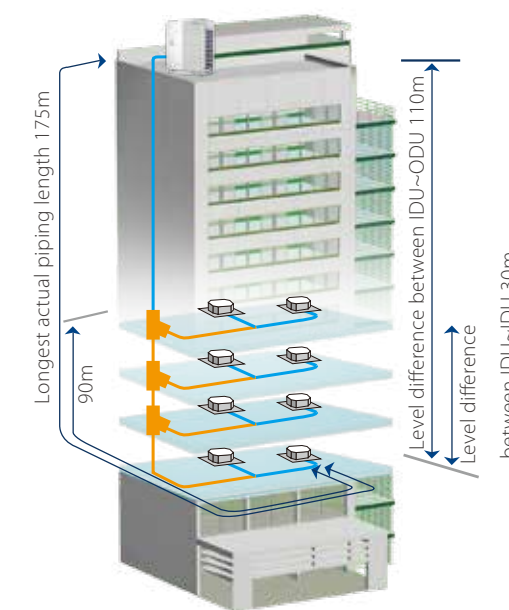
* Cooling operation at -15°C is available as a customization option.



Long Piping Capability

Piping length	Capability (m)
Total piping length	1000
Longest piping length-actual (equivalent)	175 (200)
Longest piping length after first branch	40/90*
Largest level difference between IDUs and ODU-ODU up (down)	90 (110)
Largest level difference between IDUs	30

*The longest length after first branch is 40m as standard but can be extended to up to 90m under certain conditions. Please contact your local dealer for further information.



VRF V6 Series - Heat Pump

380~415V, 3N, 50Hz

Capacity			HP	8	10	12	14
Model				MV6-252WV2GN1	MV6-280WV2GN1	MV6-335WV2GN1	MV6-400WV2GN1
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW	25.2	28.0	33.5	40.0	
		kBut/h	86.0	95.5	114.3	136.5	
	Power input	kW	5.93	6.75	8.7	9.9	
		EER	kW/kW	4.25	4.15	3.85	4.05
Heating ² (Rated)	Capacity	kW	25.2	28.0	33.5	40.0	
		kBut/h	86.0	95.5	114.3	136.5	
	Power input	kW	4.82	5.46	6.6	8.5	
		COP	kW/kW	5.23	5.13	5.10	4.70
Heating ² (Max)	Capacity	kW	27.0	31.5	37.5	45.0	
		kBut/h	92.1	107.5	128.0	153.5	
	Power input	kW	5.39	6.54	7.88	10.27	
		COP	kW/kW	5.01	4.82	4.76	4.38
Connectable	Total capacity		50-130% of outdoor unit capacity				
Indoor Unit	Max. quantity		13	16	20	23	
Compressors	Type		DC inverter				
	Quantity		1				
Fan motors	Type		DC				
	Quantity		1				
	Max. ESP	Pa	20 default; up to 80 customization option				20 default; up to 120 customization option
Refrigerant	Type		R410A				
	Factory charge	kg	11				13
Pipe	Liquid pipe	mm	Φ12.7		Φ15.9	Φ15.9	
connections ³	Gas pipe	mm	Φ25.4		Φ28.6	Φ31.8	
Airflow rate	m ³ /h		11000				13000
Sound pressure level ⁴	dB(A)		58		60	62	
Sound power level	dB(A)		78		81	85	
Net dimensions (WxHxD)	mm		990×1635×790				1340×1635×850
Packed dimensions (WxHxD)	mm		1090×1805×860				1405×1805×910
Net weight	kg		227				277
Gross weight	kg		242				304
Ambient temp.	Cooling	°C	-5 to 48				
operating range	Heating	°C	-25 to 24				

Capacity			HP	16	18	20	22
Model				MV6-450WV2GN1	MV6-500WV2GN1	MV6-560WV2GN1	MV6-615WV2GN1
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW	45.0	50.0	56.0	61.5	
		kBut/h	153.5	170.6	191.1	209.8	
	Power input	kW	12.0	12.5	15.1	18.4	
		EER	kW/kW	3.75	4.00	3.70	3.35
Heating ² (Rated)	Capacity	kW	45.0	50.0	56.0	61.5	
		kBut/h	153.5	170.6	191.1	209.8	
	Power input	kW	9.8	10.6	12.7	15.0	
		COP	kW/kW	4.60	4.70	4.40	4.10
Heating ² (Max)	Capacity	kW	50.0	56.0	63.0	69.0	
		kBut/h	170.6	191.1	215.0	235.4	
	Power input	kW	11.76	12.84	15.29	17.78	
		COP	kW/kW	4.25	4.36	4.12	3.88
Connectable	Total capacity		50-130% of outdoor unit capacity				
Indoor Unit	Max. quantity		26	29	33	36	
Compressors	Type		DC inverter				
	Quantity		1	2			
Fan motors	Type		DC				
	Quantity		1	2			
	Max. ESP	Pa	20 default; up to 120 customization option				
Refrigerant	Type		R410A				
	Factory charge	kg	13	17			
Pipe	Liquid pipe	mm	Φ15.9	Φ19.1			
connections ³	Gas pipe	mm	Φ31.8	Φ31.8			
Airflow rate			m ³ /h	13000	17000		
Sound pressure level ⁴			dB(A)	65	66		
Sound power level			dB(A)	88			
Net dimensions (WxHxD)			mm	1340×1635×850	1340×1635×825		
Packed dimensions (WxHxD)			mm	1405×1805×910			
Net weight			kg	277	348		
Gross weight			kg	304	368		
Ambient temp.	Cooling	°C	-5 to 48				
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.

VRF V6 Series - Heat Pump

380~415V, 3N, 50Hz

Capacity			HP	24	26	28
Model				MV6-670WV2GN1	MV6-730WV2GN1	MV6-785WV2GN1
Power supply			V/N/Hz	380-415/3/50		
Cooling ¹	Capacity	kW	67.0	73.0	78.5	
		kBut/h	228.6	249.1	267.8	
	Power input	kW	18.1	20.9	24.2	
		EER	kW/kW	3.70	3.49	3.25
Heating ² (Rated)	Capacity	kW	67.0	73.0	78.5	
		kBut/h	228.6	249.1	267.8	
	Power input	kW	15.33	18.11	21.16	
		COP	kW/kW	4.37	4.03	3.71
Heating ² (Max)	Capacity	kW	75.0	81.5	87.5	
		kBut/h	255.9	278.1	298.6	
	Power input	kW	18.56	21.68	26.04	
		COP	kW/kW	4.04	3.76	3.36
Connectable	Total capacity		50-130% of outdoor unit capacity			
Indoor Unit	Max. quantity		39	43	46	
Compressors	Type		DC inverter			
	Quantity		2			
Fan motors	Type		DC			
	Quantity		2			
	Max. ESP	Pa	20 default; up to 120 customization option			
Refrigerant	Type		R410A			
	Factory charge	kg	22			
Pipe connections ³	Liquid pipe	mm	Φ19.1	Φ22.2		
	Gas pipe	mm	Φ31.8	Φ31.8		
Airflow rate		m ³ /h	25000			
Sound pressure level ⁴		dB(A)	67	68		
Sound power level		dB(A)	89	90		
Net dimensions (WxHxD)		mm	1730 × 1830 × 850			
Packed dimensions (WxHxD)		mm	1800×2000×910			
Net weight		kg	430			
Gross weight		kg	453			
Ambient temp. operating range	Cooling	°C	-5 to 48			
	Heating	°C	-25 to 24			

Capacity			HP	30	32
Model				MV6-850WV2GN1	MV6-900WV2GN1
Power supply			V/N/Hz	380-415/3/50	
Cooling ¹	Capacity	kW	85.0		90.0
		kBut/h	290.0		307.1
	Power input	kW	27.4		31.0
		EER	kW/kW	3.10	
Heating ² (Rated)	Capacity	kW	85.0		90.0
		kBut/h	290.0		307.1
	Power input	kW	22.9		25.7
		COP	kW/kW	3.71	
Heating ² (Max)	Capacity	kW	95.0		100.0
		kBut/h	324.1		341.2
	Power input	kW	27.78		30.67
		COP	kW/kW	3.42	
Connectable	Total capacity		50-130% of outdoor unit capacity		
Indoor Unit	Max. quantity		50		53
Compressors	Type		DC inverter		
	Quantity		2		
Fan motors	Type		DC		
	Quantity		2		
	Max. ESP	Pa	20 default; up to 120 customization option		
Refrigerant	Type		R410A		
	Factory charge	kg	25		
Pipe	Liquid pipe	mm	Φ22.2		
connections ³	Gas pipe	mm	Φ38.1		
Airflow rate			m ³ /h	24000	
Sound pressure level ⁴			dB(A)	68	
Sound power level			dB(A)	90	
Net dimensions (WxHxD)			mm	1730 × 1830 × 850	
Packed dimensions (WxHxD)			mm	1800x2000x910	
Net weight			kg	475	
Gross weight			kg	507	
Ambient temp.	Cooling	°C	-5 to 48		
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.

VRF V6 Series - Heat Pump

380~415V, 3N, 50Hz

Capacity			HP	34	36	38	40
Model				MV6-950WV2GN1	MV6-1015WV2GN1	MV6-1065WV2GN1	MV6-1120WV2GN1
Combination type				12HP+22HP	14HP+22HP	16HP+22HP	12HP+28HP
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW	95.0	101.5	106.5	112.0	
		kBut/h	324.1	346.3	363.4	382.1	
	Power input	kW	27.1	28.2	30.4	32.9	
		EER	kW/kW	3.51	3.59	3.51	3.41
Heating ² (Rated)	Capacity	kW	95.0	101.5	106.5	112.0	
		kBut/h	324.1	346.3	363.4	382.1	
	Power input	kW	21.6	23.5	24.8	27.7	
		COP	kW/kW	4.40	4.32	4.30	4.04
Heating ² (Max)	Capacity	kW	106.5	114.0	119.0	125.0	
		kBut/h	363.4	389.0	406.0	426.5	
	Power input	kW	25.66	28.06	29.55	33.92	
		COP	kW/kW	4.15	4.06	4.03	3.69
Connectable	Total capacity		50-130% of outdoor unit capacity				
Indoor Unit	Max. quantity		56	59	63	64	
Compressors	Type		DC inverter				
	Quantity		3				
Fan motors	Type		DC				
	Quantity		3				
	Max. ESP	Pa	20 default; up to 120 customization option				
Refrigerant	Type		R410A				
	Factory charge	kg	11+17	13+17	11+22		
Pipe	Liquid pipe	mm	Φ19.1	Φ19.1			
	Gas pipe	mm	Φ31.8	Φ38.1			
Airflow rate		m ³ /h	28000	30000	36000		
Sound pressure level ⁴		dB(A)	69				
Sound power level		dB(A)	91				
Net dimensions (WxHxD)		mm	(990×1635×790)+(1340×1635×825)	(1340×1635×850)+(1340×1635×825)		(990×1635×790)+(1730×1830×850)	
Packed dimensions (WxHxD)		mm	(1090×1805×860)+(1405×1805×910)	(1405×1805×910)×2		(1090×1805×860)+(1800×2000×910)	
Net weight		kg	227+348	277+348	227+430		
Gross weight		kg	242+368	304+368	242+453		
Ambient temp. operating range	Cooling	°C	-5 to 48				
	Heating	°C	-25 to 24				

Capacity			HP	42	44	46	48
Model				MV6-1175WV2GN1	MV6-1230WV2GN1	MV6-1285WV2GN1	MV6-1345WV2GN1
Combination type				20HP+22HP	22HP+22HP	22HP+24HP	22HP+26HP
Power supply		V/N/Hz	380-415/3/50				
Cooling ¹	Capacity	kW	117.5	123.0	128.5	134.5	
		kBut/h	400.9	419.7	438.4	458.9	
	Power input	kW	33.5	36.7	36.5	39.3	
	EER	kW/kW	3.51	3.35	3.52	3.43	
Heating ² (Rated)	Capacity	kW	117.5	123.0	128.5	134.5	
		kBut/h	400.9	419.7	438.4	458.9	
	Power input	kW	27.7	30.0	30.43	33.21	
	COP	kW/kW	4.24	4.10	4.22	4.05	
Heating ² (Max)	Capacity	kW	132.0	138.0	144.0	150.5	
		kBut/h	450.4	470.9	491.3	513.5	
	Power input	kW	33.07	35.57	36.35	39.46	
	COP	kW/kW	3.99	3.88	3.96	3.81	
Connectable Indoor Unit	Total capacity		50-130% of outdoor unit capacity				
Compressors	Max. quantity		64				
	Type		DC inverter				
Fan motors	Quantity		4				
	Type		DC				
	Quantity		4				
	Max. ESP	Pa	20 default; up to 120 customization option				
Refrigerant	Type		R410A				
	Factory charge	kg	17×2		17+22		
Pipe connections ³	Liquid pipe		mm		Φ19.1		
	Gas pipe		mm		Φ38.1		
Airflow rate		m ³ /h	34000		42000		
Sound pressure level ⁴		dB(A)			70		
Sound power level		dB(A)			92		
Net dimensions (W×H×D)		mm	(1340×1635×825)×2		(1340×1635×825)+(1730×1830×850)		
Packed dimensions (W×H×D)		mm	(1405×1805×910)×2		(1405×1805×910)+(1800×2000×910)		
Net weight		kg	348×2		348+430		
Gross weight		kg	368×2		368+453		
Ambient temp. operating range	Cooling	°C	-5 to 48				
	Heating	°C	-25 to 24				

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the V6 Series Engineering Data Book for connection piping diameters.
- 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.

VRF V6 Series - Heat Pump

380~415V, 3N, 50Hz

Capacity			HP	50	52	54	56
Model				MV6-1400WV2GN1	MV6-1460WV2GN1	MV6-1515WV2GN1	MV6-1570WV2GN1
Combination type				22HP+28HP	26HP+26HP	26HP+28HP	28HP+28HP
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW	140.0	146.0	151.5	157.0	
		kBut/h	477.7	498.2	516.9	535.7	
	Power input	kW	42.5	41.8	45.1	48.3	
		EER	kW/kW	3.29	3.49	3.36	3.25
Heating ² (Rated)	Capacity	kW	140.0	146.0	151.5	157.0	
		kBut/h	477.7	498.2	516.9	535.7	
	Power input	kW	36.2	36.22	39.3	42.3	
		COP	kW/kW	3.87	4.03	3.86	3.71
Heating ² (Max)	Capacity	kW	156.5	163.0	169.0	175.0	
		kBut/h	534.0	556.2	576.6	597.1	
	Power input	kW	43.83	43.35	47.72	52.08	
		COP	kW/kW	3.57	3.76	3.54	3.36
Connectable Indoor Unit	Total capacity		50-130% of outdoor unit capacity				
Compressors	Max. quantity		64				
	Type		DC inverter				
Fan motors	Quantity		4				
	Type		DC				
	Quantity		4				
	Max. ESP		Pa	20 default; up to 120 customization option			
Refrigerant	Type		R410A				
	Factory charge	kg	17+22	22×2			
Pipe connections ³	Liquid pipe		mm	Φ19.1			Φ19.1
	Gas pipe		mm	Φ38.1			Φ41.3
Airflow rate			m ³ /h	42000	50000		
Sound pressure level ⁴			dB(A)	70			
Sound power level			dB(A)	92			
Net dimensions (WxHxD)			mm	(1340×1635×825)+(1730×1830×850)	(1730×1830×850)×2		
Packed dimensions (WxHxD)			mm	(1405×1805×910)+(1800×2000×910)	(1800×2000×910)×2		
Net weight			kg	348+430	430×2		
Gross weight			kg	368+453	453×2		
Ambient temp. operating range	Cooling	°C	-5 to 48				
	Heating	°C	-25 to 24				

Capacity			HP	58	60	62	64
Model				MV6-1635WV2GN1	MV6-1685WV2GN1	MV6-1750WV2GN1	MV6-1800WV2GN1
Combination type				28HP+30HP	28HP+32HP	30HP+32HP	32HP+32HP
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW	163.5	168.5	175.0	180.0	
		kBut/h	557.9	574.9	597.1	614.2	
	Power input	kW	51.6	55.2	58.5	62.1	
		EER	kW/kW	3.17	3.05	2.99	2.90
Heating ² (Rated)	Capacity	kW	163.5	168.5	175.0	180.0	
		kBut/h	557.9	574.9	597.1	614.2	
	Power input	kW	44.1	46.9	48.7	51.4	
		COP	kW/kW	3.70	3.59	3.59	3.50
Heating ² (Max)	Capacity	kW	182.5	187.5	195.0	200.0	
		kBut/h	622.7	639.8	665.3	682.4	
	Power input	kW	53.82	56.72	58.45	61.35	
		COP	kW/kW	3.39	3.31	3.34	3.26
Connectable Indoor Unit	Total capacity		50-130% of outdoor unit capacity				
Compressors	Max. quantity		64				
	Type		DC inverter				
Fan motors	Quantity		4				
	Type		DC				
	Quantity		4				
Refrigerant	Max. ESP	Pa	20 default; up to 120 customization option				
	Type		R410A				
Pipe connections ³	Factory charge	kg	22+25		25×2		
	Liquid pipe	mm		Ø19.1			
Airflow rate	Gas pipe	mm		Ø41.3			
	m ³ /h		49000		48000		
Sound pressure level ⁴		dB(A)		70			
Sound power level		dB(A)		92			
Net dimensions (W×H×D)		mm	(1730×1830×850)×2				
Packed dimensions (W×H×D)		mm	(1800×2000×910)×2				
Net weight		kg	430+475		475×2		
Gross weight		kg	453+507		507×2		
Ambient temp. operating range	Cooling	°C	-5 to 48				
	Heating	°C	-25 to 24				

VRF V6 Series - Heat Pump

380~415V, 3N, 50Hz

Capacity			HP	66	68	70	72
Model				MV6-1850WV2GN1	MV6-1915WV2GN1	MV6-1965WV2GN1	MV6-2020WV2GN1
Combination type				12HP+22HP+32HP	14HP+22HP+32HP	16HP+22HP+32HP	12HP+28HP+32HP
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW		185.0	191.5	196.5	202.0
		kBut/h		631.2	653.4	670.5	689.2
	Power input	kW		58.1	59.3	61.4	63.9
	EER	kW/kW		3.18	3.23	3.20	3.16
Heating ² (Rated)	Capacity	kW		185.0	191.5	196.5	202.0
		kBut/h		631.2	653.4	670.5	689.2
	Power input	kW		47.3	49.2	50.5	53.4
	COP	kW/kW		3.91	3.89	3.89	3.78
Heating ² (Max)	Capacity	kW		206.5	214.0	219.0	225.0
		kBut/h		704.6	730.2	747.2	767.7
	Power input	kW		56.34	58.73	60.22	64.59
	COP	kW/kW		3.67	3.64	3.64	3.48
Connectable	Total capacity			50-130% of outdoor unit capacity			
Indoor Unit	Max. quantity			64			
Compressors	Type			DC inverter			
	Quantity			5			
Fan motors	Type			DC			
	Quantity			5			
	Max. ESP	Pa		20 default; up to 120 customization option			
Refrigerant	Type			R410A			
	Factory charge	kg		11+17+25	13+17+25	11+22+25	
Pipe connections ³	Liquid pipe	mm		Φ19.1	Φ22.2		
	Gas pipe	mm		Φ41.3	Φ44.5		
Airflow rate		m ³ /h		52000	54000	60000	
Sound pressure level ⁴		dB(A)		71			
Sound power level		dB(A)		93			
Net dimensions (WxHxD)		mm		(990×1635×790)+(1340×1635×825)+(1730×1830×850)	(1340×1635×850)+(1340×1635×825)+(1730×1830×850)	(990×1635×790)+(1730×1830×850)×2	
Packed dimensions (WxHxD)		mm		(1090×1805×860)+(1405×1805×910)+(1800×2000×910)	(1405×1805×910)×2+(1800×2000×910)	(1090×1805×860)+(1800×2000×910)×2	
Net weight		kg		227+348+475	277+348+475	227+430+475	
Gross weight		kg		242+368+507	304+368+507	242+453+507	
Ambient temp. operating range	Cooling	°C		-5 to 48			
	Heating	°C		-25 to 24			

Capacity			HP	74	76	78	80
Model				MV6-2075WV2GN1	MV6-2130WV2GN1	MV6-2185WV2GN1	MV6-2245WV2GN1
Combination type				20HP+22HP+32HP	22HP+22HP+32HP	22HP+24HP+32HP	22HP+26HP+32HP
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW		207.5	213.0	218.5	224.5
		kBut/h		708.0	726.8	745.5	766.0
	Power input	kW		64.5	67.8	67.5	70.3
	EER	kW/kW		3.22	3.14	3.24	3.19
Heating ² (Rated)	Capacity	kW		207.5	213.0	218.5	224.5
		kBut/h		708.0	726.8	745.5	766.0
	Power input	kW		53.4	55.7	56.13	58.91
	COP	kW/kW		3.88	3.82	3.89	3.81
Heating ² (Max)	Capacity	kW		232.0	238.0	244.0	250.5
		kBut/h		791.6	812.1	832.5	854.7
	Power input	kW		63.75	66.24	67.02	70.13
	COP	kW/kW		3.64	3.59	3.64	3.57
Connectable	Total capacity			50-130% of outdoor unit capacity			
Indoor Unit	Max. quantity			64			
Compressors	Type			DC inverter			
	Quantity			6			
Fan motors	Type			DC			
	Quantity			6			
	Max. ESP	Pa		20 default; up to 120 customization option			
Refrigerant	Type			R410A			
	Factory charge	kg		17×2+25		17+22+25	
Pipe connections ³	Liquid pipe	mm			Φ22.2		
	Gas pipe	mm			Φ44.5		
Airflow rate		m ³ /h		58000		66000	
Sound pressure level ⁴		dB(A)			72		
Sound power level		dB(A)			94		
Net dimensions (WxHxD)		mm		(1340×1635×825)×2+(1730×1830×850)		(1340×1635×825)+(1730×1830×850)×2	
Packed dimensions (WxHxD)		mm		(1405×1805×910)×2+(1800×2000×910)		(1405×1805×910)+(1800×2000×910)×2	
Net weight		kg		348×2+475		348+430+475	
Gross weight		kg		368×2+507		368+453+507	
Ambient temp. operating range	Cooling	°C		-5 to 48			
	Heating	°C		-25 to 24			

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the V6 Series Engineering Data Book for connection piping diameters.
- 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.

VRF V6 Series - Heat Pump

380~415V, 3N, 50Hz

Capacity			HP	82	84	86	88
Model				MV6-2300WV2GN1	MV6-2360WV2GN1	MV6-2415WV2GN1	MV6-2470WV2GN1
Combination type				22HP+28HP+32HP	26HP+26HP+32HP	26HP+28HP+32HP	28HP+28HP+32HP
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW		230.0	236.0	241.5	247.0
		kBut/h		784.8	805.2	824.0	842.8
	Power input	kW		73.5	72.8	76.1	79.3
	EER	kW/kW		3.13	3.24	3.17	3.11
Heating ² (Rated)	Capacity	kW		230.0	236.0	241.5	247.0
		kBut/h		784.8	805.2	824.0	842.8
	Power input	kW		61.9	61.92	65.0	68.0
	COP	kW/kW		3.72	3.81	3.72	3.63
Heating ² (Max)	Capacity	kW		256.5	263.0	269.0	275.0
		kBut/h		875.2	897.4	917.8	938.3
	Power input	kW		74.50	74.03	78.39	82.76
	COP	kW/kW		3.44	3.55	3.43	3.32
Connectable	Total capacity			50-130% of outdoor unit capacity			
Indoor Unit	Max. quantity			64			
Compressors	Type			DC inverter			
	Quantity			6			
Fan motors	Type			DC			
	Quantity			6			
	Max. ESP	Pa		20 default; up to 120 customization option			
Refrigerant	Type			R410A			
	Factory charge	kg		17+22+25		22×2+25	
Pipe connections ³	Liquid pipe	mm		Φ22.2		Φ25.4	
	Gas pipe	mm		Φ44.5		Φ50.8	
Airflow rate		m ³ /h		66000		74000	
Sound pressure level ⁴		dB(A)			72		
Sound power level		dB(A)			94		
Net dimensions (WxHxD)		mm		(1340×1635×825)+(1730×1830×850)×2		(1730×1830×850)×3	
Packed dimensions (WxHxD)		mm		(1405×1805×910)+(1800×2000×910)×2		(1800×2000×910)×3	
Net weight		kg		348+430+475		430×2+475	
Gross weight		kg		368+453+507		453×2+507	
Ambient temp. operating range	Cooling	°C		-5 to 48			
	Heating	°C		-25 to 24			

Capacity			HP	90	92	94	96
Model				MV6-2535WV2GN1	MV6-2585WV2GN1	MV6-2650WV2GN1	MV6-2700WV2GN1
Combination type				28HP+30HP+32HP	28HP+32HP+32HP	30HP+32HP+32HP	32HP+32HP+32HP
Power supply			V/N/Hz	380-415/3/50			
Cooling ¹	Capacity	kW		253.5	258.5	265.0	270.0
		kBut/h		864.9	882.0	904.2	921.2
	Power input	kW		82.6	86.2	89.5	93.1
	EER	kW/kW		3.07	3.00	2.96	2.90
Heating ² (Rated)	Capacity	kW		253.5	258.5	265.0	270.0
		kBut/h		864.9	882.0	904.2	921.2
	Power input	kW		69.8	72.6	74.4	77.1
	COP	kW/kW		3.63	3.56	3.56	3.50
Heating ² (Max)	Capacity	kW		282.5	287.5	295.0	300.0
		kBut/h		963.9	981.0	1006.5	1023.6
	Power input	kW		84.49	87.39	89.13	92.02
	COP	kW/kW		3.34	3.29	3.31	3.26
Connectable	Total capacity			50-130% of outdoor unit capacity			
Indoor Unit	Max. quantity			64			
Compressors	Type			DC inverter			
	Quantity			6			
Fan motors	Type			DC			
	Quantity			6			
	Max. ESP	Pa		20 default; up to 120 customization option			
Refrigerant	Type			R410A			
	Factory charge	kg		22+25×2		25+25×2	
Pipe connections ³	Liquid pipe	mm			Φ25.4		
	Gas pipe	mm			Φ50.8		
Airflow rate		m ³ /h		73000		72000	
Sound pressure level ⁴		dB(A)			72		
Sound power level		dB(A)			94		
Net dimensions (WxHxD)		mm			(1730×1830×850)×3		
Packed dimensions (WxHxD)		mm			(1800×2000×910)×3		
Net weight		kg		430+475×2		475×3	
Gross weight		kg		453+507×2		507×3	
Ambient temp. operating range	Cooling	°C		-5 to 48			
	Heating	°C		-25 to 24			

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.



Indoor Units
VRF indoor units



Fresh Air Processing Unit
100% fresh air supply



Ventilation
Heat recovery ventilator (HRV)



AHU Connection Kit
Connect to MDV or third party DX AHU



Control Systems
Smart control systems



VRF V6-i side discharge series Heat Pump

Wide Capacity Range

V6-i VRF side-discharge type, it has four models, 18/20/22.4/26/28 kw.

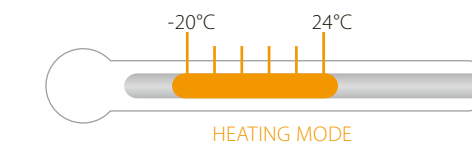
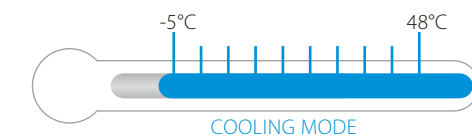
Side-discharge type



18/20/22.4/26/28 kw

Wide Operation Range

The V6-i VRF can operate stably in a wide ambient temperature range.

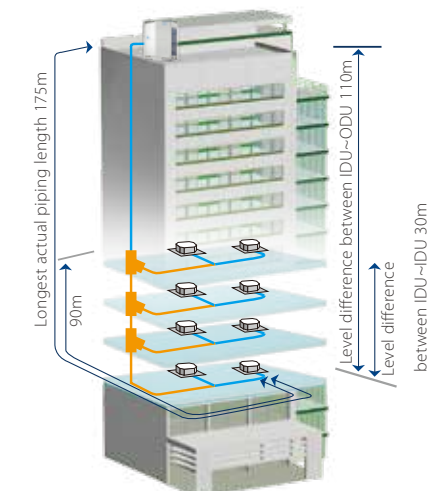


Side-discharge type

Long Piping Capability

Piping length	Capability (m)
	Side-discharge
Total piping length	150
Longest piping length-actual (equivalent)	100 (110)
Longest piping length after first branch	40
Largest level difference between IDUs and ODU-ODU up (down)	50 (40)
Largest level difference between IDUs	15

*The longest length after first branch is 40m as standard but can be extended to up to 90m under certain conditions. Please contact your local dealer for further information.



VRF V6-i side discharge series Heat Pump

380~415V, 3N, 50Hz

Model			MVi-180WV2RN1(A)	MVi-200WV2RN1(A)	MVi-224WV2RN1(A)
Power supply		V/N/Hz	380-415/3/50		
Cooling ¹	Capacity	kW	18	20	22.4
		kBtu/h	61.38	68.2	76.4
	Power input	kW	4.19	4.90	6.83
	EER		4.3	4.08	3.28
Heating ² (Nominal)	Capacity	kW	18	20	22.4
		kBtu/h	61.38	68.2	76.4
	Power input	kW	3.67	4.21	4.98
	COP		4.9	4.75	4.50
Heating ² (Max)	Capacity	kW	20	22.5	25
		kBtu/h	68.2	76.8	85.3
	Power input	kW	5.8	6.59	6.67
	COP		3.45	3.41	3.75
Connected	Total capacity		50-130% of outdoor unit capacity		
indoor unit	Maximum quantity		10	11	13
Compressor	Type		DC inverter		
	Quantity		1		
Fan motors	Type		DC		
	Quantity		2		
Refrigerant	Type		R410A		
	Factory charge	kg	6.5	6.5	6.5
Pipe	Liquid pipe	mm	Φ9.53	Φ9.53	Φ9.53
connections ³	Gas pipe	mm	Φ19.1	Φ19.1	Φ19.1
Airflow rate		m ³ /h	9000	9000	9000
Sound pressure level ⁴		dB(A)	58	58	58
Net dimensions (W×H×D)		mm	1120×1558×528		
Packed dimensions (W×H×D)		mm	1270×1720×565		
Net weight		kg	143	143	143
Gross weight		kg	159	159	159
Operating temperature range	Cooling	°C	-5 to 48		
	Heating	°C	-20 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 1m above the floor in a semi-anechoic chamber.

Model			MVi-260WV2RN1(A)	MVi-280WV2RN1(A)
Power supply		V/N/Hz	380-415/3/50	
Cooling ¹	Capacity	kW	26	28.5
		kBtu/h	88.7	97.2
	Power input	kW	9.63	12.28
	EER		2.70	2.32
Heating ² (Nominal)	Capacity	kW	26	28.5
		kBtu/h	88.7	97.2
	Power input	kW	5.53	6.16
	COP		4.70	4.63
Heating ² (Max)	Capacity	kW	28.5	31.5
		kBtu/h	97.2	107.5
	Power input	kW	7.43	7.41
	COP		3.83	4.25
Connected	Total capacity		50-130% of outdoor unit capacity	
indoor unit	Maximum quantity		15	16
Compressor	Type		DC inverter	
	Quantity		1	
Fan motors	Type		DC	
	Quantity		2	
Refrigerant	Type		R410A	
	Factory charge	kg	6.5	6.5
Pipe	Liquid pipe	mm	Φ9.53	Φ9.53
connections ³	Gas pipe	mm	Φ22.2	Φ22.2
Airflow rate		m ³ /h	10000	11000
Sound pressure level ⁴		dB(A)	59	60
Net dimensions (W×H×D)		mm	1120×1558×528	
Packed dimensions (W×H×D)		mm	1270×1720×565	
Net weight		kg	144	144
Gross weight		kg	160	160
Operating temperature range	Cooling	°C	-5 to 48	
	Heating	°C	-20 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 1m above the floor in a semi-anechoic chamber.



Indoor Units
VRF indoor units



Fresh Air Processing Unit
100% fresh air supply



Ventilation
Heat recovery ventilator (HRV)



AHU Connection Kit
Connect to MDV or third party DX AHU



Control Systems
Smart control systems



VRF V6R Series Heat Recovery

Offers simultaneous cooling and heating operation in one system

- ▶ META Technology
- ▶ Zen Air Technology
- ▶ Doctor M Technology
- ▶ Enhanced Vapor Injection (EVI) Compressor
- ▶ Triple Configurations
- ▶ ESP up to 80Pa
- ▶ Plate Heat (PHE) Subcooling
- ▶ Precise Oil Control Technology
- ▶ Multi Silent Modes
- ▶ Duty Cycling
- ▶ Backup Operation
- ▶ Refrigerant Cooling PCB
- ▶ Auto Snow-blowing Function
- ▶ Dust-clean Function
- ▶ Standard Multi-Functional Diagnosis Box
- ▶ Automatic Refrigerant Detecting/Charging/Recycling

Wide Capacity Range

Starting at 8HP, capacity increases in 2HP increments up to 54HP, which is perfect for small to large buildings.

8/10/12HP



14/16/18HP



20-36HP

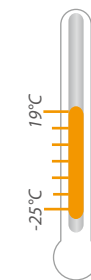
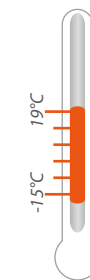


38-54HP



Wide Operation Range

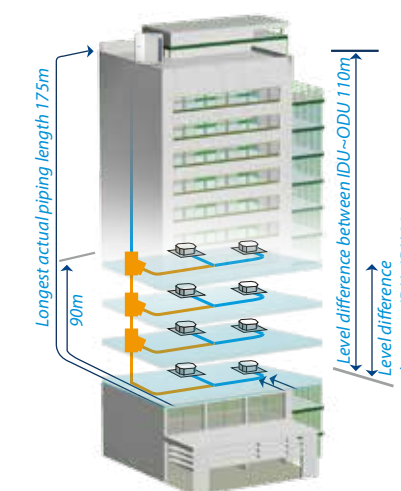
The V6R VRF system has a wide operation range in cooling mode, heating mode and simultaneous cooling and heating mode.



Long Piping Capability

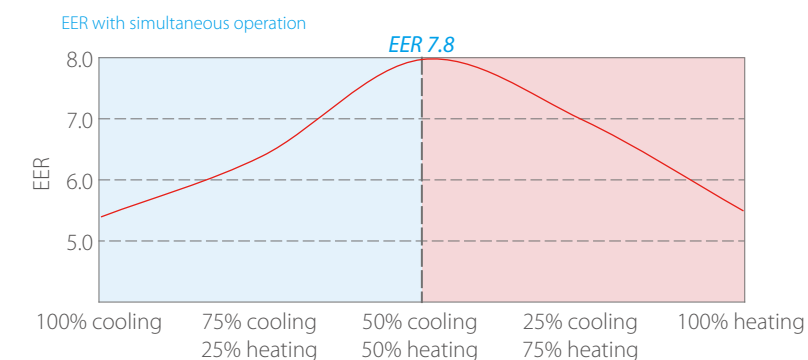
Piping length	Capability (m)
Total piping length	1000
Longest piping length-actual (equivalent)	175 (200)
Longest piping length after first branch	40/90*
Largest level difference between IDUs and ODU-ODU up (down)	110 (110)
Largest level difference between IDUs	30

*The longest length after first branch is 40m as standard but can be extended to up to 90m under certain conditions. Please contact your local dealer for further information.



Heat Recovery, Maximum Energy Saving

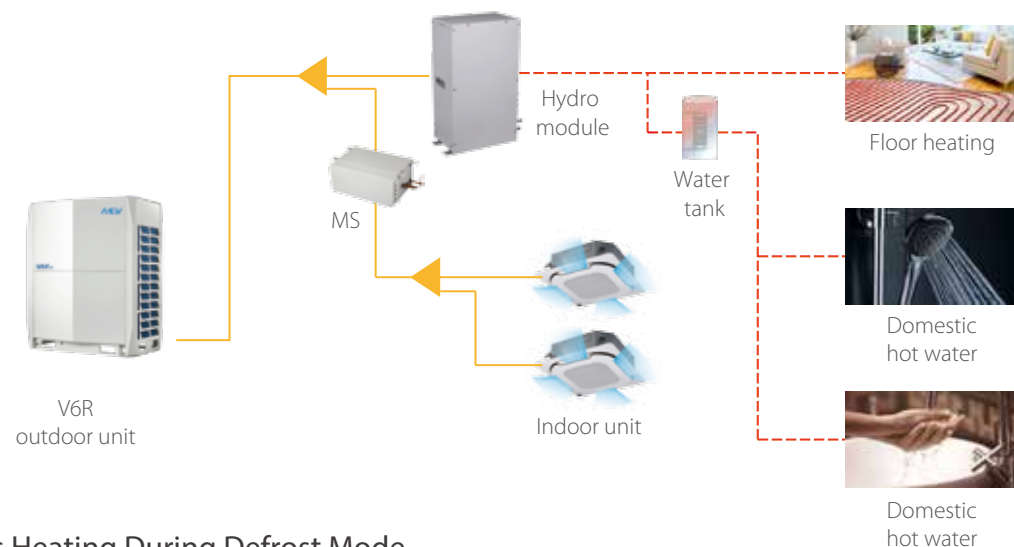
V6R Heat Recovery system can perform both cooling and heating operation simultaneously in one system. Heat recovery is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating. As a result of this, energy efficiency is maximized and electricity costs are reduced. The part load efficiencies are high as well (up to 7.8 in 8 HP category).



EER in simultaneous cooling and heating mode are based on the following conditions:
Outdoor temperature 7°CDB/6°CWB, indoor temperature 27°CDB/19°CWB for cooling, indoor temperature 20°CDB for heating.

Hot Water Supply

The V6R system can produce hot water (25°C to 80°C) when providing room air conditioning. The hot water can be used for space heating and domestic hot water, improving room comfort.



Continuous Heating During Defrost Mode

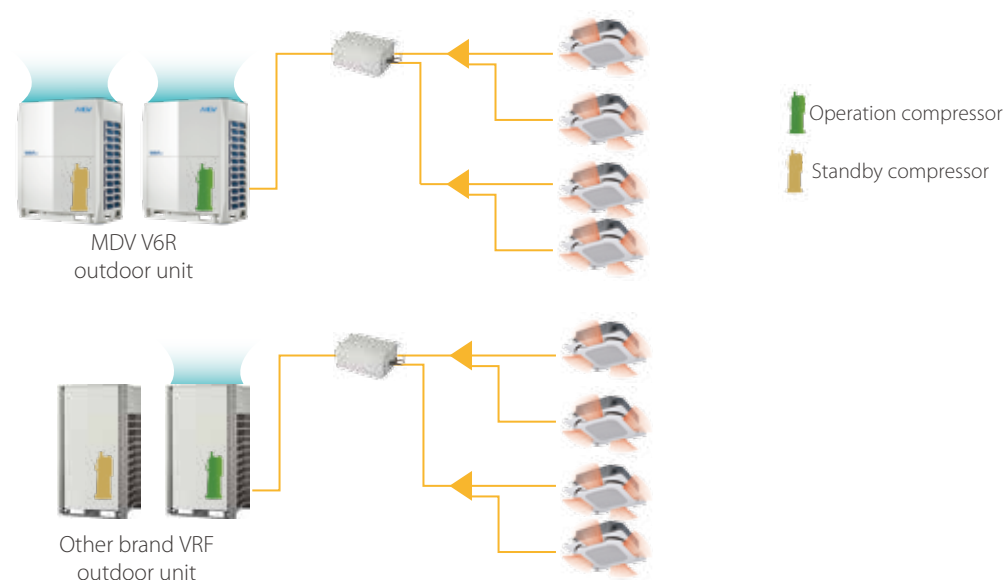
Normally, it is necessary to stop the heating operation during defrosting. However, the continuous heating operation method makes it possible to perform defrosting while the heating operation continues. With the combination model, units perform defrosting alternately. While one unit is performing defrosting, the other continues heating.



Note: This function is only available when the indoor units connected in V6R system are 2nd generation AC VRF indoor units (which will be released soon) or 2nd generation DC VRF indoor units produced after May 31st, 2020 only.

Independent Control of Heat Exchanger and Compressor to Improve Energy Efficiency

In cooling or heating mode, for a multi-unit system, the outdoor heat exchanger and compressor are independently controlled to improve energy efficiency, which means even the compressor of the outdoor unit does not operate, the heat exchanger of this outdoor unit can be used for heat exchange. This function can maximum use the outdoor heat exchanger to improve heat exchange efficiency.

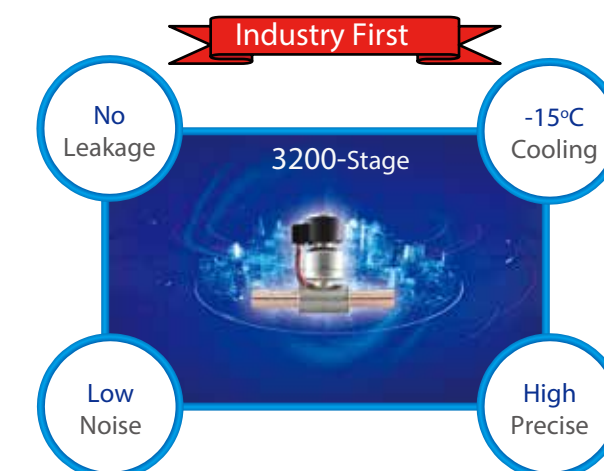


Intelligent MS Box

The V6R Heat Recovery system can perform simultaneous heating and cooling operation through the intelligent MS-box. It switches operation mode according to user requirement while it increases efficiency with simultaneous operation.

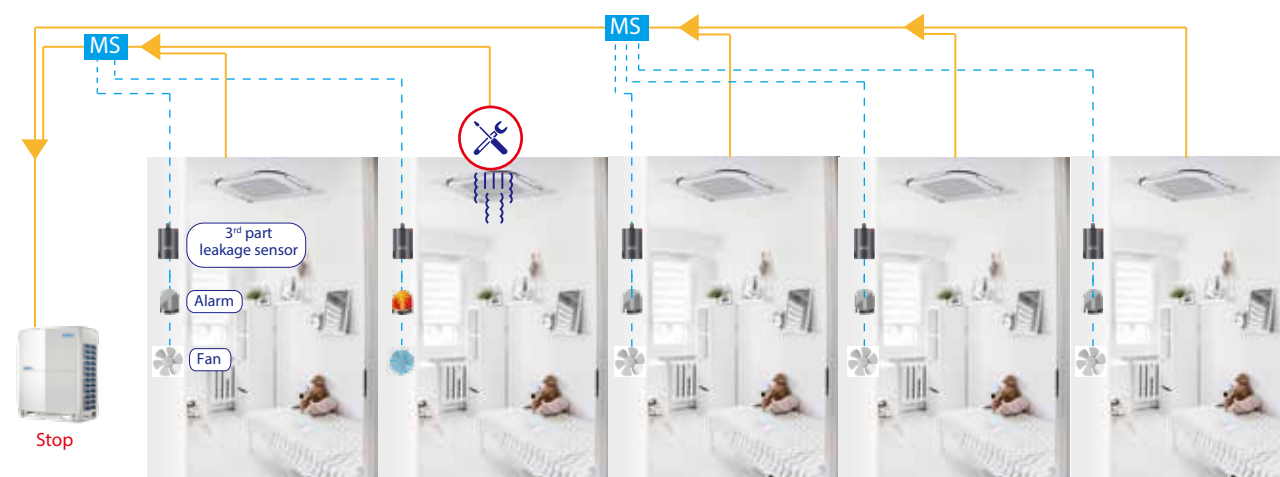
● Single Port

- ▶ Compact and light to install
- ▶ No drain piping needed
- ▶ Connect up to 8 indoor units, capacity up to 32kW
- ▶ Double direction connection for refrigerant pipe to improve installation flexibility
- ▶ Electric ball valve control precision is up to 3200-stage
 - Completely close the valve with almost no leakage
 - Can be opened and closed in stages with very low noise
 - Can achieve cooling at ambient temperatures as low as -15°C
 - High precision refrigerant flow control
 - Low noise operation



- ▶ Real-time refrigerant leakage detection, safe and reliable operation.

- Real-time refrigerant leakage detection
- Provide dry contact to 3rd party for alarm and exhaust fan. When refrigerant leakage occurs, the alarm light will be on and the exhaust fan will automatically run to timely reduce the concentration of refrigerant in the room



● Multiple Ports: 4-6-8-10-12

- ▶ Compact and light to install
- ▶ Low noise operation
- ▶ Up to 5 indoor units can be connected to one port
- ▶ Up to 47 indoor units can be connected to one MS12 box
- ▶ Up to 16 kW capacity available per port
- ▶ Connect up to 280 index unit (28kW) by combining 2 ports



VRF V6R Series - Heat Recovery

380~415V, 3N, 50Hz

HP			8	10	12	14	16	18
Model name			MV6-R252WV2GN1	MV6-R280WV2GN1	MV6-R335WV2GN1	MV6-R400WV2GN1	MV6-R450WV2GN1	MV6-R500WV2GN1
Power supply			380-415/3/50					
Cooling ¹	Capacity	kW	22.4	28.0	33.5	40.0	45.0	50.0
	Power input	kW	5.25	7.18	8.64	9.83	12.00	13.81
	EER		4.27	3.90	3.88	4.07	3.75	3.62
Heating ² (Rated)	Capacity	kW	22.4	28.0	33.5	40.0	45.0	50.0
	Power input	kW	3.96	5.46	6.57	8.26	9.78	11.90
	COP		5.66	5.13	5.10	4.84	4.60	4.20
Heating ² (Max)	Capacity	kW	25.0	31.5	37.5	45.0	50.0	56.0
	Power input	kW	4.69	7.12	9.48	9.78	12.26	14.77
	COP		5.33	4.43	3.95	4.60	4.08	3.79
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity					
	Maximum quantity		64					
Compressor	Type		DC inverter					
	Quantity		1					
Fan	Type		Propeller					
	Motor type		DC					
	Quantity		1					
	Static pressure	Pa	0,20,40,60,80(Selectable)					
	Air flow rate	m³/h	9000	9500	10000	14000	14900	15800
Refrigerant	Type		R410A					
	Factory charge	kg	8					
Pipe connections ³	Liquid pipe	mm	Φ12.7					
	Low pressure gas pipe	mm	Φ25.4					
	High pressure gas pipe	mm	Φ19.1					
			Φ22.2					
Sound pressure level ⁴		dB(A)	58	58	60	61	64	65
Sound power level ⁴		dB(A)	78	78	81	81	88	88
Net dimensions (WxHxD)		mm	990x1635x790					
Packed dimensions (WxHxD)		mm	1090x1805x860					
Net weight		kg	232					
Gross weight		kg	248					
Ambient temp. operation range	Cooling	°C(DB)	-15 ~ 52					
	Heating	°C(WB)	-25 ~ 19					
	Domestic hot water	°C(DB)	-20 ~ 43					

HP			20	22	24
Model name			MV6-R560WV2GN1	MV6-R615WV2GN1	MV6-R680WV2GN1
Combination type			10HP+10HP	10HP+12HP	10HP+14HP
Power supply			380-415/3/50		
Cooling ¹	Capacity	V/N/Hz	56.0	61.5	68.0
	Power input	kW	14.36	15.82	17.01
	EER		3.90	3.89	4.00
Heating ² (Rated)	Capacity	kW	56.0	61.5	68.0
	Power input	kW	10.92	12.03	13.72
	COP		5.13	5.11	4.96
Heating ² (Max)	Capacity	kW	63.0	69.0	76.5
	Power input	kW	14.24	16.60	16.90
	COP		4.43	4.16	4.53
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity		
	Maximum quantity		64		
Compressor	Type		DC inverter		
	Quantity		2		
Fan	Type		Propeller		
	Motor type		DC		
	Quantity		2	2	3
	Static pressure	Pa	0,20,40,60,80(Selectable)		
	Air flow rate	m³/h	19000	19500	23500
Refrigerant	Type		R410A		
	Factory charge	kg	16	16	18
Pipe connections ³	Liquid pipe	mm	Φ15.9	Φ15.9	Φ15.9
	Low pressure gas pipe	mm	Φ28.6	Φ28.6	Φ34.9
	High pressure gas pipe	mm	Φ28.6	Φ28.6	Φ28.6
Sound pressure level ⁴		dB(A)	61	62	63
Sound power level ⁴		dB(A)	81	83	83
Net dimensions (WxHxD)		mm	(990×1635×790)×2	(990×1635×790)×2	990×1635×790+1340×1635×825
Packed dimensions (WxHxD)		mm	(1090×1805×860)×2	(1090×1805×860)×2	1090×1805×860+1405×1805×910
Net weight		kg	232×2	232×2	232+300
Gross weight		kg	248×2	248×2	248+325
Ambient temp. operation range	Cooling	°C(DB)	-15 ~ 52		
	Heating	°C(WB)	-25 ~ 19		
	Domestic hot water	°C(DB)	-20 ~ 43		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- For single units, diameters given are those of the unit's stop valves. For combined units, diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the Engineering Data Book for connection piping diameters.
- 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.

VRF V6R Series - Heat Recovery

380~415V, 3N, 50Hz

HP			26	28	30
Model name			MV6-R735WV2GN1	MV6-R785WV2GN1	MV6-R835WV2GN1
Combination type			12HP+14HP	12HP+16HP	12HP+18HP
Power supply			380-415/3/50		
Cooling ¹	Capacity	V/N/Hz	73.5	78.5	83.5
	Power input	kW	18.46	20.64	22.45
	EER		3.98	3.80	3.72
Heating ² (Rated)	Capacity	kW	73.5	78.5	83.5
	Power input	kW	14.83	16.35	18.47
	COP		4.96	4.80	4.52
Heating ² (Max)	Capacity	kW	82.5	87.5	93.5
	Power input	kW	19.27	21.74	24.25
	COP		4.28	4.02	3.86
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity		
	Maximum quantity		64		
Compressor	Type		DC inverter		
	Quantity		2		
Fan	Type		Propeller		
	Motor type		DC		
	Quantity		3		
	Static pressure	Pa	0,20,40,60,80(Selectable)		
	Air flow rate	m³/h	24000	24900	25800
Refrigerant	Type		R410A		
	Factory charge	kg	18		
Pipe connections ³	Liquid pipe	mm	Φ19.1		
	Low pressure gas pipe	mm	Φ34.9		
	High pressure gas pipe	mm	Φ28.6		
Sound pressure level ⁴		dB(A)	64	65	66
Sound power level ⁴		dB(A)	84	89	89
Net dimensions (WxHxD)		mm	990×1635×790+1340×1635×825		
Packed dimensions (WxHxD)		mm	1090×1805×860+1405×1805×910		
Net weight		kg	232+300		
Gross weight		kg	248+325		
Ambient temp. operation range	Cooling	°C (DB)	-15 ~ 52		
	Heating	°C (WB)	-25 ~ 19		
	Domestic hot water	°C (DB)	-20 ~ 43		

HP			32	34	36
Model name			MV6-R900WV2GN1	MV6-R950WV2GN1	MV6-R1000WV2GN1
Combination type			16HP+16HP	16HP+18HP	18HP+18HP
Power supply			380-415/3/50		
Cooling ¹	Capacity	V/N/Hz	90.0	95.0	100.0
	Power input	kW	24.00	25.81	28.72
	EER		3.75	3.68	3.48
Heating ² (Rated)	Capacity	kW	90.0	95.0	100.0
	Power input	kW	19.57	21.69	21.83
	COP		4.60	4.38	4.58
Heating ² (Max)	Capacity	kW	100.0	106.0	112.0
	Power input	kW	24.52	27.03	29.54
	COP		4.08	3.92	3.79
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity		
	Maximum quantity		64		
Compressor	Type		DC inverter		
	Quantity		2		
Fan	Type		Propeller		
	Motor type		DC		
	Quantity		4		
	Static pressure	Pa	0,20,40,60,80(Selectable)		
	Air flow rate	m³/h	29800	30700	31600
Refrigerant	Type		R410A		
	Factory charge	kg	20		
Pipe connections ³	Liquid pipe	mm	Φ19.1		
	Low pressure gas pipe	mm	Φ34.9		
	High pressure gas pipe	mm	Φ28.6		
Sound pressure level ⁴		dB(A)	67	68	68
Sound power level ⁴		dB(A)	91	91	91
Net dimensions (WxHxD)		mm	(1340×1635×825)×2		
Packed dimensions (WxHxD)		mm	(1405×1805×910)×2		
Net weight		kg	300×2		
Gross weight		kg	325×2		
Ambient temp. operation range	Cooling	°C (DB)	-15 ~ 52		
	Heating	°C (WB)	-25 ~ 19		
	Domestic hot water	°C (DB)	-20 ~ 43		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the Engineering Data Book for connection piping diameters.
- 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.

VRF V6R Series - Heat Recovery

380~415V, 3N, 50Hz

HP			38	40	42	44
Model name			MV6-R1070WV2GN1	MV6-R1120WV2GN1	MV6-R1185WV2GN1	MV6-R1235WV2GN1
Combination type			12HP+12HP+14HP	12HP+12HP+16HP	12HP+14HP+16HP	12HP+16HP+16HP
Power supply			V/N/Hz			
Cooling ¹	Capacity	kW	107.0	112.0	118.5	123.5
	Power input	kW	27.10	29.27	30.46	32.64
	EER		3.95	3.83	3.89	3.78
	Capacity	kW	107.0	112.0	118.5	123.5
Heating ² (Rated)	Power input	kW	21.40	22.92	24.62	26.13
	COP		5.00	4.89	4.81	4.73
	Capacity	kW	120.0	125.0	132.5	137.5
Heating ² (Max)	Power input	kW	28.75	31.23	31.53	34.01
	COP		4.17	4.00	4.20	4.04
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity			
	Maximum quantity		64			
Compressor	Type		DC inverter			
	Quantity		3			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		4		5	
	Static pressure	Pa	0,20,40,60,80(Selectable)			
	Air flow rate	m³/h	34000	34900	38900	39800
Refrigerant	Type		R410A			
	Factory charge	kg	26		28	
Pipe connections ³	Liquid pipe	mm	Φ19.1			
	Low pressure gas pipe	mm	Φ41.3			
	High pressure gas pipe	mm	Φ34.9			
Sound pressure level ⁴		dB(A)	65	67	67	68
Sound power level ⁴		dB(A)	86	89	89	91
Net dimensions (WxHxD)		mm	(990×1635×790)×2+1340×1635×825			
Packed dimensions (WxHxD)		mm	(1090×1805×860)×2+1405×1805×910			
Net weight		kg	232×2+300			
Gross weight		kg	248×2+325			
Ambient temp. operation range	Cooling	°C (DB)	-15 ~ 52			
	Heating	°C (WB)	-25 ~ 19			
	Domestic hot water	°C (DB)	-20 ~ 43			

HP			46	48	50	52	54
Model name			MV6-R1300WV2GN1	MV6-R1350WV2GN1	MV6-R1400WV2GN1	MV6-R1450WV2GN1	MV6-R1500WV2GN1
Combination type			14HP+16HP+16HP	16HP+16HP+16HP	16HP+16HP+18HP	16HP+18HP+18HP	18HP+18HP+18HP
Power supply			V/N/Hz				
Cooling ¹	Capacity	kW	130.0	135.0	140.0	145.0	150.0
	Power input	kW	33.83	36.00	37.81	39.62	41.44
	EER		3.84	3.75	3.70	3.66	3.62
	Capacity	kW	130.0	135.0	140.0	145.0	150.0
Heating ² (Rated)	Power input	kW	27.83	29.35	31.47	33.59	35.71
	COP		4.67	4.60	4.45	4.32	4.20
	Capacity	kW	145.0	150.0	156.0	162.0	168.0
Heating ² (Max)	Power input	kW	34.31	36.79	39.29	41.80	44.31
	COP		4.23	4.08	3.97	3.88	3.79
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity				
	Maximum quantity		64				
Compressor	Type		DC inverter				
	Quantity		3				
Fan	Type		Propeller				
	Motor type		DC				
	Quantity		6				
	Static pressure	Pa	0,20,40,60,80(Selectable)				
	Air flow rate	m³/h	43800	44700	45600	46500	47400
Refrigerant	Type		R410A				
	Factory charge	kg	30				
Pipe connections ³	Liquid pipe	mm	Φ19.1				
	Low pressure gas pipe	mm	Φ41.3				
	High pressure gas pipe	mm	Φ34.9				
Sound pressure level ⁴		dB(A)	68	69	69	69	70
Sound power level ⁴		dB(A)	91	93	93	93	93
Net dimensions (WxHxD)		mm	(1340×1635×825)×3				
Packed dimensions (WxHxD)		mm	(1405×1805×910)×3				
Net weight		kg	300×3				
Gross weight		kg	325×3				
Ambient temp. operation range	Cooling	°C (DB)	-15 ~ 52				
	Heating	°C (WB)	-25 ~ 19				
	Domestic hot water	°C (DB)	-20 ~ 43				

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the Engineering Data Book for connection piping diameters.
- 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.

VRF V6R Series - MS box



Model name			MS01/N1-D	MS04/N1-D	MS06/N1-D	MS08/N1-D	MS10/N1-D	MS12/N1-D
Power supply			220-240V~50Hz					
Max. number of indoor unit groups			1	4	6	8	10	12
Max. number of indoor units per group			8	5	5	5	5	5
Max. number of downstream indoor units			8	20	30	40	47	47
Max. capacity of each group of indoor units		kW	32	16	16	16	16	16
Max. total capacity of all downstream indoor units		kW	32	49	63	85	85	85
Pipe connections to ODU ¹	Liquid pipe	mm	Φ9.53/Φ12.7	Φ9.53/Φ12.7/Φ15.9/Φ19.1	Φ9.53/Φ12.7/Φ15.9/Φ19.1	Φ12.7/Φ15.9/Φ19.1/Φ22.2	Φ12.7/Φ15.9/Φ19.1/Φ22.2	Φ12.7/Φ15.9/Φ19.1/Φ22.2
	Low pressure gas pipe	mm	Φ15.9/Φ19.1/Φ22.2	Φ19.1/Φ22.2/Φ28.6	Φ19.1/Φ22.2/Φ28.6	Φ22.2/Φ28.6/Φ34.9	Φ22.2/Φ28.6/Φ34.9	Φ22.2/Φ28.6/Φ34.9
	High pressure gas pipe	mm	Φ12.7/Φ15.9/Φ19.1	Φ15.9/Φ19.1/Φ22.2/Φ28.6	Φ15.9/Φ19.1/Φ22.2/Φ28.6	Φ19.1/Φ22.2/Φ28.6	Φ19.1/Φ22.2/Φ28.6	Φ19.1/Φ22.2/Φ28.6
Pipe connections to IDU ¹	Liquid pipe	mm	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ9.53
	Gas pipe	mm	Φ12.7/Φ15.9	Φ12.7/Φ15.9	Φ12.7/Φ15.9	Φ12.7/Φ15.9	Φ12.7/Φ15.9	Φ12.7/Φ15.9
Sound pressure level ¹		dB(A)	40	44	45	47	47	47
Sound power level ¹		dB(A)	60	63	65	65	65	65
Net dimensions (WxHxD)		mm	440×195×296	668×250×574	668×250×574	974×250×574	974×250×574	974×250×574
Packed dimensions (WxHxD)		mm	740×275×405	1020×390×850	1020×390×850	1320×390×850	1320×390×850	1320×390×850
Net weight		kg	10.5	33	36	48	51	54
Gross weight		kg	14	58	61	79	82	85

Note:

1 There is more than one size for pipe diameter in the above table because MS provides multiple sizes for different installation conditions.



VRF V6R Series - High temperature hydro module

Model			SMK-D140HN1-3
Power supply			220-240V~50Hz
Heating Capacity ¹		kW	14
Operating temperature range	Heating	°C	-20~30
	Domestic hot water	°C	-20~43
Water temperature		°C	25~80
Water flow rate	Nominal (Min.-Max.)	m³/h	2.4 (1.2-2.9)
Allowable water pressure		Bar	1-10
Refrigerant	Type		R134a
	Factory charge	kg	1.2
Sound pressure level		dB(A)	44
Net dimensions (WxHxD)		mm	450x795x300
Packed dimensions (WxHxD)		mm	735x820x380
Net / Gross weight		kg	58 / 67.2
Refrigerant pipe	Connection type		Brazing
	Liquid pipe diameter	mm	Φ9.53
	Gas pipe diameter	mm	Φ12.7
Water pipe	Connection type		External thread
	Inlet pipe diameter	mm	Φ25.4
	Outlet pipe diameter	mm	Φ25.4
Unit installation ambient temperature range		°C	0~40
Unit installation place			Indoor only

Note:

Nominal heating capacity is based on the following conditions: ambient temperature 7°C DB/6°C WB; water inlet/outlet temperature 40°C DB/45°C.



Indoor Units

VRF V4 Plus indoor units



Fresh Air Processing Unit

100% fresh air supply



Ventilation

Heat recovery ventilator (HRV)



AHU Connection Kit

Connect to other brand AHU



Control Systems

Smart control systems



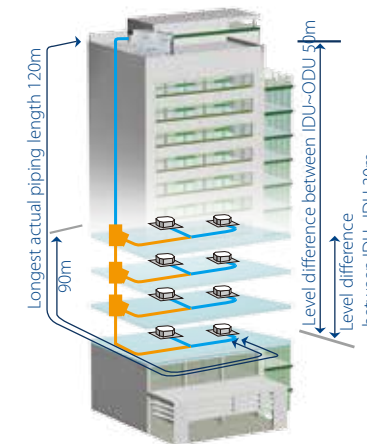
VRF V4 Plus W Series Water Cooled

- » DC inverter compressors
- » Capacity up to 36HP
- » Connectable indoor units quantity up to 59
- » Cycle duty operation
- » Backup operation
- » Precise oil control technology
- » Low noise operation
- » Simple communication wiring
- » Easy maintenance

Wide Range of Outdoor Units

The Water Cooled V4+W Series capacity ranges from 8HP to 36HP, meets all customer requirements from small to large buildings.

Long Piping Length



8/10/12HP

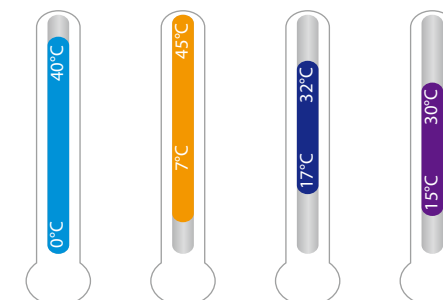
Max. 3 units combination



Total piping length	300m
Longest length actual (Equivalent)	120(150)m
Longest length after first branch	90*m
Level difference between indoor and outdoor units - ODU up (down)	50(40)m
Level difference between indoor units	30m

*The longest piping length is 40m standard. It can be extended to 90m. When the length is over 40m, please contact your local MDV dealer for more information and restrictions.

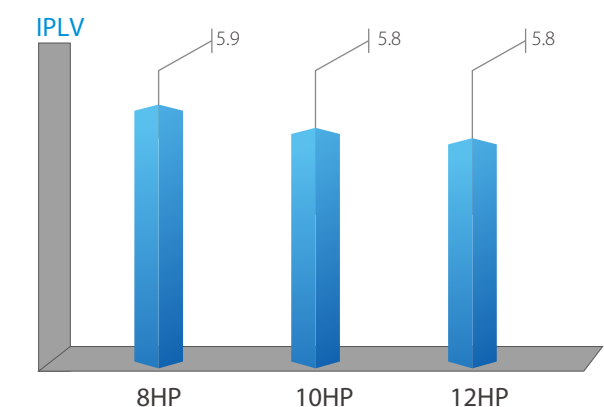
Wide Operation Temperature Range



- Main unit ambient temperature: 0°C~40°C
- Main unit water inlet temperature: 7°C~45°C
- Indoor temperature in cooling mode: 17°C~32°C
- Indoor temperature in heating mode: 15°C~30°C

High IPLV

MDV V4 Plus W Series System combines water system and refrigerant system perfectly. IPLV(C) reaches as high as 5.9. Compared with air-cooled VRF, energy saving is higher.



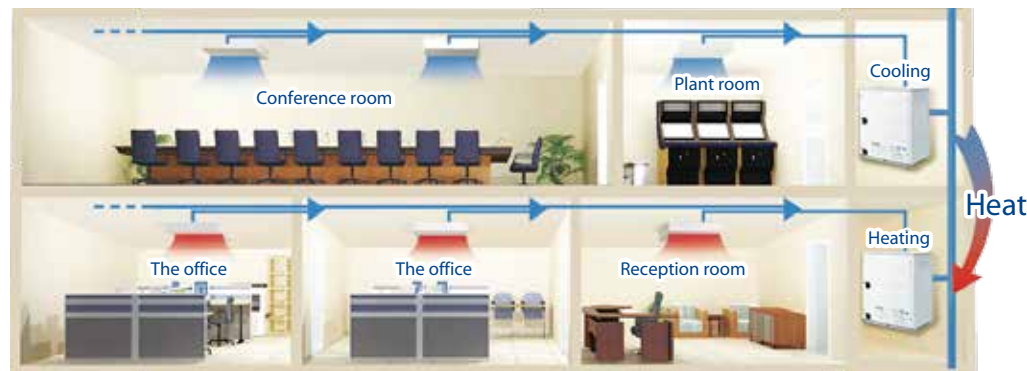
High Efficiency Double-Pipe Heat Exchanger

With the innovatively designed double-pipe heat exchanger, the water quality required is low. The water side has large circulation area, and it is not easily plugged, creating higher reliability and easier cleaning and maintenance.



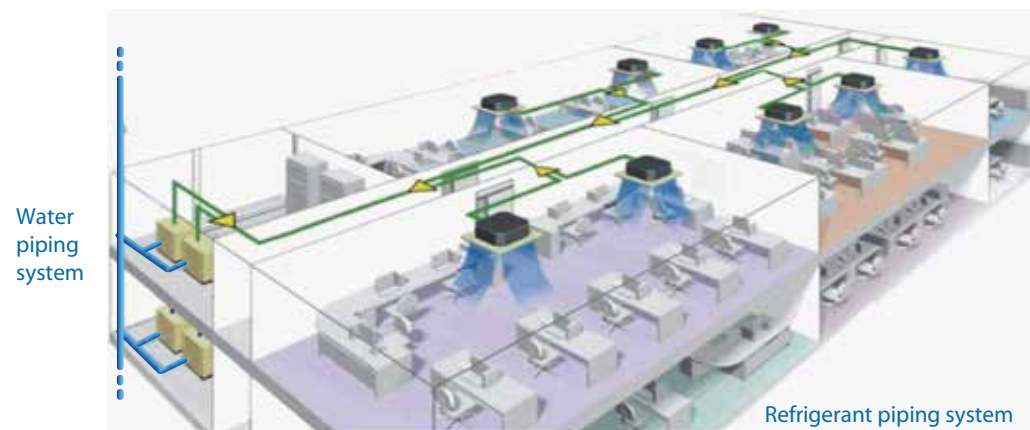
Water Side Heat Recovery Function

In modern large-scale buildings, the load between the internal and external areas is different. It may occur in some situations that both cooling and heating are required. The V4 PLUS W Series not only can achieve meticulous system division in different areas but also can recover heat at the same time, significantly improving energy efficiency.



No Water Leakage

No water pipes installed indoors, no water leakage risks.



VRF V4 Plus W Series - Water Cooled

HP		8	10	12	16	18	20	22
Model MDVS-		252(8)W/DRN1	280(10)W/DRN1	335(12)W/DRN1	504(16)W/DRN1	532(18)W/DRN1	560(20)W/DRN1	615(22)W/DRN1
Combined type		/	/	/	8HPx2	8HP+10HP	10HPx2	10HP+12HP
Power supply	V/Ph/Hz	380-415/3/50						
Cooling	Capacity	kW	25.2	28.0	33.5	50.4	53.2	61.5
	Power input	kW	4.80	6.10	8.00	9.60	10.90	14.10
	EER		5.25	4.59	4.19	5.25	4.88	4.36
Heating	Capacity	kW	27.0	31.5	37.5	54.0	58.5	69.0
	Power input	kW	4.45	5.83	7.80	8.90	10.3	13.63
	COP		6.07	5.40	4.81	6.07	5.69	5.06
Connectable indoor unit	Total capacity	50~130% of outdoor unit capacity						
	Max. quantity	13	16	19	23	29	33	36
Compressor	Type	DC inverter						
	Quantity	1	1	1	2	2	2	2
Heat exchanger	Type	Double-pipe heat exchanger						
	Rated water flow volume	m³/h	5.4	6	7.2	5.4x2	5.4+6	6x2
Refrigerant	Type	R410A						
	Factory charging	kg	2	2	2	2x2	2x2	2x2
Pipe connections	Liquid pipe	mm	Φ12.7	Φ12.7	Φ15.9	Φ12.7	Φ15.9	Φ15.9
	Gas pipe	mm	Φ25.4	Φ25.4	Φ31.8	Φ28.6	Φ28.6	Φ28.6
	Oil balance pipe	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
Sound pressure level	dB(A)	51	52	52	53	53	53	54
Net dimension (WxHxD)	mm	780x1000x550			(780x1000x550)x2			
Packing size (WxHxD)	mm	845x1170x600			(845x1170x600)x2			
Net weight	kg	146	146	147	146x2	146x2	146x2	146+147
Gross weight	kg	155	155	156	155x2	155x2	155x2	155+156
Operating temperature range	°C	Water inlet temp.: 7-45; ambient temp.: 0-40						

HP		24	26	28	30	32	34	36
Model MDVS-		670(24)W/DRN1	784(26)W/DRN1	812(28)W/DRN1	840(30)W/DRN1	895(32)W/DRN1	950(34)W/DRN1	1005(36)W/DRN1
Combined type		12HPx2	8HPx2+10HP	8HP+10HPx2	10HPx3	10HPx2+12HP	10HP+12HPx2	12HPx3
Power supply	V/Ph/Hz	380-415/3/50						
Cooling	Capacity	kW	67.0	78.4	81.2	84.0	89.5	100.5
	Power input	kW	16.0	15.7	17.0	18.3	20.2	24.0
	EER		4.19	4.99	4.78	4.59	4.43	4.19
Heating	Capacity	kW	75.0	85.5	90.0	94.5	100.5	106.5
	Power input	kW	15.6	14.73	16.11	17.49	19.46	23.4
	COP		4.81	5.80	5.59	5.40	5.16	4.81
Connectable indoor unit	Total capacity	50~130% of outdoor unit capacity						
	Max. quantity	39	43	46	50	53	56	59
Compressor	Type	DC inverter						
	Quantity	2	3	3	3	3	3	3
Heat exchanger	Type	Double-pipe heat exchanger						
	Rated water flow volume	m³/h	7.2x2	5.4x2+6	5.4+6x2	6x3	6x2+7.2	6+7.2x2
Refrigerant	Type	R410A						
	Factory charging	kg	2x2	2x3	2x3	2x3	2x3	2x3
Pipe connections	Liquid pipe	mm	Φ15.9	Φ19.1	Φ19.1	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ28.6	Φ31.8	Φ31.8	Φ31.8	Φ31.8	Φ38.1
	Oil balance pipe	mm	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35	Φ6.35
Sound pressure level	dB(A)	54	55	55	56	57	57	58
Net dimension (WxHxD)	mm	(780x1000x550)x2			(780x1000x550)x3			
Packing size (WxHxD)	mm	(845x1170x600)x2			(845x1170x600)x3			
Net weight	kg	147x2	146x3	146x3	146x3	146x2+147	146+147x2	147x3
Gross weight	kg	156x2	155x3	155x3	155x3	155x2+156	155+156x2	156x3
Operating temperature range	°C	Water inlet temp.: 7-45; ambient temp.: 0-40						

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Main unit ambient temperature 35°C DB/24°C WB; Water inlet temperature 30°C;

Heating: Indoor temperature 20°C DB/15°C WB; Main unit ambient temperature 7°C DB/6°C WB; Water inlet temperature 20°C;

Piping length: Interconnecting piping length is 5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, is case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1m above the floor.



Indoor Units
VRF indoor units



Ventilation
Heat recovery ventilator (HRV)



Control Systems
Smart control systems



AHU Connection Kit
Connect to MDV or third party DX AHU



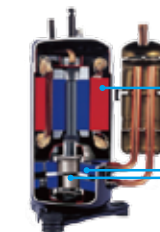
Mini C VRF Series Heat Pump



DC Inverter Compressor

DC inverter compressor makes the output of the outdoor unit to be modulated by the cooling or heating demands of the zone that it controls. This advanced system ensures precise temperature regulation and highly efficient energy usage, making a significant contribution to the limiting the impact on the environment.

Compressor (Twin Rotor) structure



Highly Efficient DC Motor:

Creative motor core design
High density neodymium magnet
Concentrated type stator
Wider operating frequency range

Better balance and Extremely Low Vibration:




Twin eccentric cams
2 balance weights

Highly Stable Moving Parts:

Optimal material matching rollers and vanes
Optimize compressor drive technology
Highly robust bearings
Compact structure

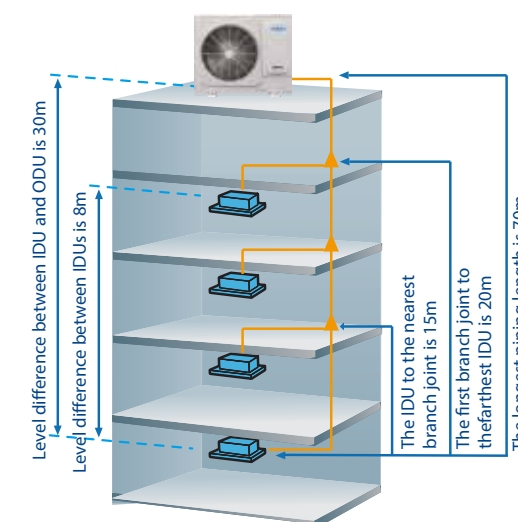
Wide Capacity Range

For Mini C series, it has 5 models from 8kW to 18kW. The Mini VRF is perfect for commercial and residential applications: small offices, villas, apartments, shops, etc.

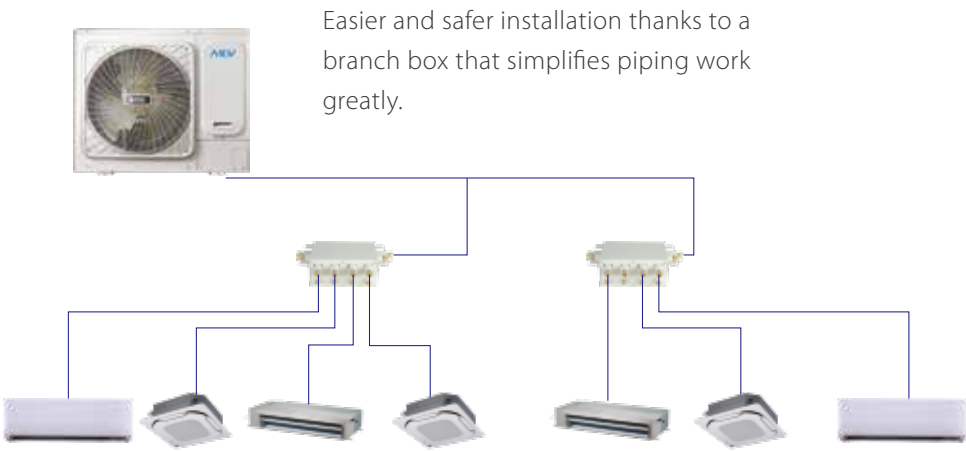
Mini C series		
8kW	10-12kW	14-16kW
		

Long Piping Capability

Piping length	Capability (m)		
	Mini C series		
	8kW	10-12kW	14-18kW
Total piping length	50	65	100
Longest piping length-actual (equivalent)	35 (40)	45 (50)	60 (70)
Longest piping length after first branch	20	20	20
Longest piping length after nearest branch	15	15	15
Largest level difference between IDUs and ODU-ODU up (down)	10 (10)	20 (20)	30 (20)
Largest level difference between IDUs	8	8	8

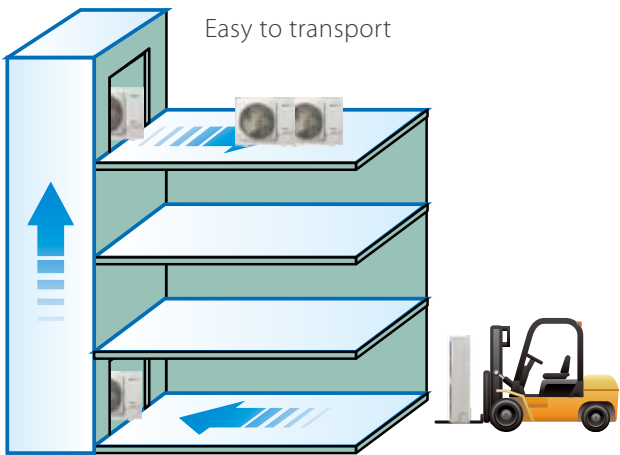


More Convenient Piping Connector – Branch Box

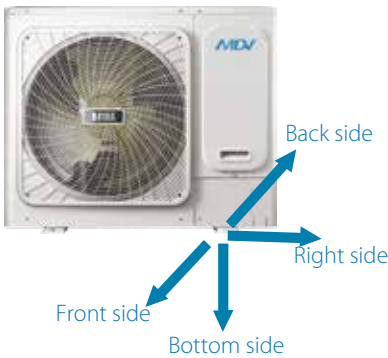


Easy Installation

The mini VRF can be transported by elevator which makes installation dramatically easy, and effectively reduces time and labor thanks to the small size.



Four-Way Piping Connection



A four-direction space is available for connecting pipes and wiring in various installation sites.

Mini VRF (Mini C series) - Heat Pump 220~240V, 1N, 50Hz

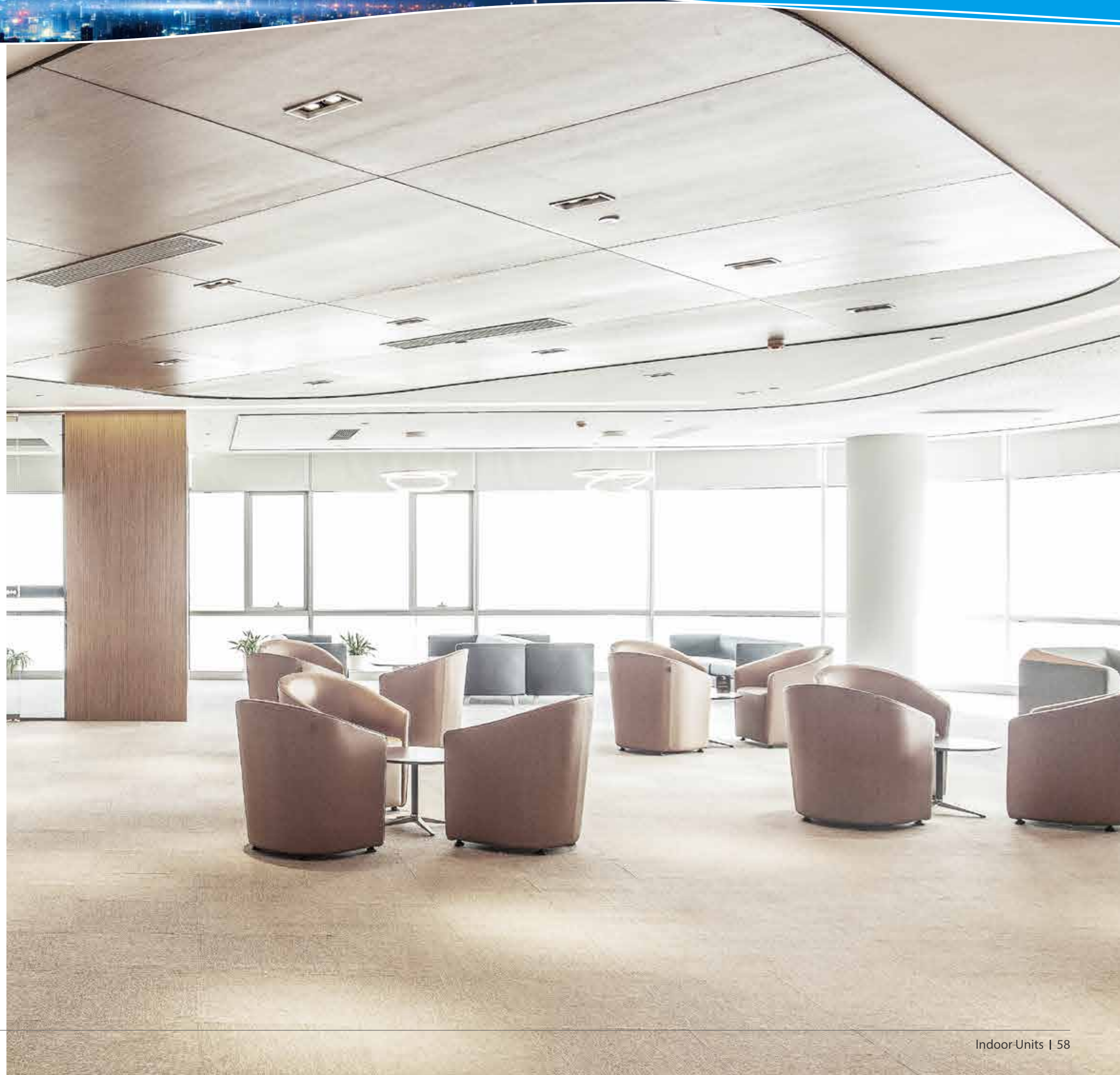
HP			3	4	4.5
Model			MDV-V80W/DN1(C)	MDV-V100W/DN1(C)	MDV-V120W/DN1(C)
Power supply		V/N/Hz	220-240/1/50		
Cooling ¹	Capacity	kW	7.2	9.0	12.2
		kBtu/h	24.6	30.7	40.9
	Power input	kW	2.18	2.64	4.32
	EER		3.30	3.41	2.83
Heating ²	Capacity	kW	7.2	9.0	14.0
		kBtu/h	24.6	30.7	47.8
	Power input	kW	1.82	2.10	3.17
	COP		3.95	4.29	4.40
Connectable indoor unit			45~130% of outdoor unit capacity		
Max. quantity			4	6	7
Compressor	Type		DC inverter		
	Quantity		1		
Fan motor	Type		DC		
	Quantity		1		
Refrigerant	Type		R410A		
	Factory charge	kg	2.2	2.35	3
Pipe connections ³	Liquid pipe	mm	Φ9.53		
	Gas pipe	mm	Φ15.9		
Airflow rate		m ³ /h	3700	5200	5000
Sound pressure level		dB(A)	54	54	56
Net dimensions (W×H×D)		mm	982×712×440	950×840×426	
Packed dimensions (W×H×D)		mm	1048×810×485	1025×950×510	
Net weight		kg	55	72.5	84
Gross weight		kg	59.5	82	93
Operating temperature range		°C	Cooling: -5~55, Heating: -15~27		

HP			5	6
Model			MDV-V140W/DN1(C)	MDV-V160W/DN1(C)
Power supply		V/N/Hz	220-240/1/50	
Cooling ¹	Capacity	kW	14.0	15.5
		kBtu/h	47.8	52.9
	Power input	kW	4.56	5.35
	EER		3.07	2.90
Heating ²	Capacity	kW	16.0	18.0
		kBtu/h	54.6	61.4
	Power input	kW	4.08	5.71
	COP		3.92	3.20
Connectable indoor unit	Total capacity		45~130% of outdoor unit capacity	
	Max. quantity		8	9
Compressor	Type		DC inverter	
	Quantity		1	
Fan motor	Type		DC	
	Quantity		1	
Refrigerant	Type		R410A	
	Factory charge	kg	3.4	3.8
Pipe connections ³	Liquid pipe	mm	Φ9.53	Φ9.53
	Gas pipe	mm	Φ15.9	Φ19.1
Airflow rate		m ³ /h	5400	5200
Sound pressure level		dB(A)	56	56
Net dimensions (W×H×D)		mm	1040×865×523	
Packed dimensions (W×H×D)		mm	1120×980×560	
Net weight		kg	91.4	95.4
Gross weight		kg	101.4	105.4
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.

INDOOR UNITS

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
Console
Fresh Air Processing Unit
Heat Recovery Ventilator
Puro-Air Kit



Inoor Unit Lineup

kW		1.5	1.8	2.2	2.8	3.6	4.5	5.6	7.1		8.0	9.0	10.0	11.2	12.5	14.0	16.0	20.0	25.0	28.0	40.0	45.0	56.0
Btu/h		5k	6k	7k	9k	12k	15k	19k	24k		27k	30k	34k	38k	42k	48k	55k	68k	85k	96k	136k	154k	191k
One-way Cassette			<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>														
Two-way Cassette				<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>														
Four-way Cassette					<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>						
Compact Four-way Cassette			1.7	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	5.2															
Medium Static Pressure Duct			1.7	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>						
High Static Pressure Duct									<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>
Wall Mounted			1.7	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>											
Ceiling & Floor						<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>		<div><div></div><div></div></div>	<div><div></div><div></div></div>						
Floor Standing - Concealed				<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>												
Floor Standing - Exposed				<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>		<div><div></div><div></div></div>												
Console				<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>	<div><div></div><div></div></div>																
Fresh Air Processing Unit															<div><div></div><div></div></div>	<div><div></div><div></div></div>							

2nd Gen. DC Indoor Units 2nd Gen. AC Indoor Units

Notes:
 Fresh air processing unit is not available for V4+W and Mini VRF Series.
 No controller is supplied inside the indoor unit package. Controllers must be purchased separately.

Indoor Unit Functions

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	Console	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°C/1 °C setting temperature adjustment	Set temperature can be adjusted in0.5 °C or 1 °C 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)	●		● (AC series) × (DC series)	●	●	×	×	×	×	×	●
	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	×	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 (AC series) 7+auto (DC series)	3+auto (AC series) 7+auto (DC series)		3+auto (AC series) 7+auto (DC series)	3+auto (AC series) 7+auto (DC series)	3+auto (AC series) 7+auto (DC series)	3+auto (AC series) 7+auto (DC series)	7+auto	3+auto (AC series) 7+auto (DC series)	3+auto (AC series) 7+auto (DC series)	3+auto (AC series) 7+auto (DC series)	3+auto (AC series) 7+auto (DC series)
	Individual louver control	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	×	×		×	×	●	●	×	×	×	×	●
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	●	●		●	●	●	●	● (DC series) × (AC series)	●	●	●	●
	Centralized control	Centralized control to control several indoor units from one single point	●	●		●	●	●	●	●	●	●	●	●
	°C/°F setting	Temperature unit °C or °F can be set according to your usage habits	●	●		●	●	●	●	●	●	●	●	●
Other functions	Energy saving ²	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. 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		DC Series	AC Series
Comfort	Quiet operation	●	●
	0.5°C/1°C setting temperature adjustment	●	●
	Digital display on/off	●	●
	Buzzer sound on/off	●	●
Health	Fresh air intake	● (45 to 71)	● (45 to 71)
	Dirty filters indicator signal	●	●
Air flow	Multiple fan speeds	7+auto	3+auto
	Multiple steps vertical swing	5+auto	5+auto
Easy installation	Minimized height	●	●
	High-lift drain pump	Rated head: 1200mm Raise height: 750mm	Rated head: 1200mm Raise height: 750mm

Note:
●: equipped as standard

COMFORT

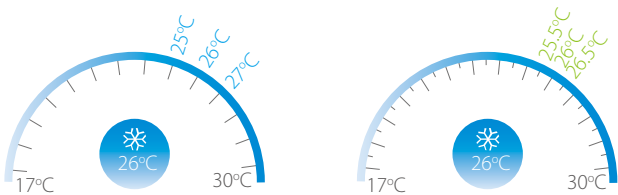
Quiet Operation

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



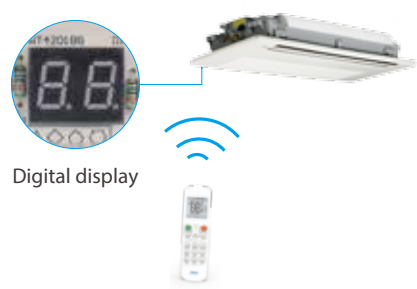
0.5°C/1°C Setting Temperature Adjustment

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.



Buzzer Sound On/Off

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



HEALTH

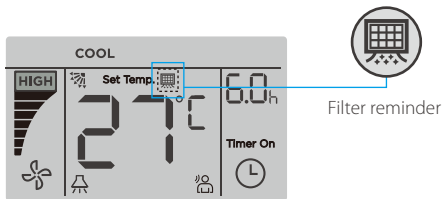
Fresh Air Intake

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

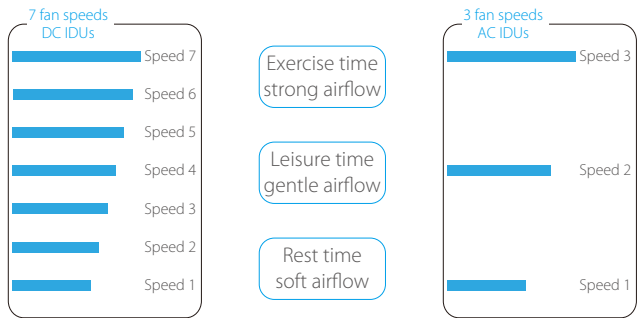
The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.



AIR FLOW

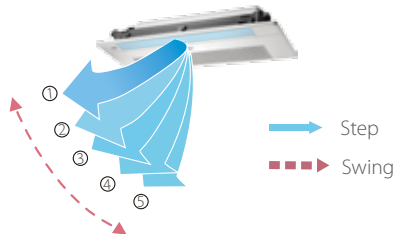
Multiple Fan Speeds

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.



Multiple Steps Vertical Swing

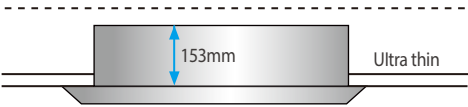
There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs.



EASY INSTALLATION

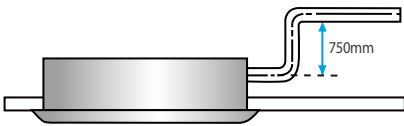
Easy Installation

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.



High-lift Drain Pump

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



Specifications - DC Series

Model			MI2-18Q1DN1	MI2-22Q1DN1	MI2-28Q1DN1	MI2-36Q1DN1
Power supply			1-phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	1.8	2.2	2.8	3.6
		kBtu/h	6.1	7.5	9.6	12.3
	Power input	W	25	25	30	30
Heating ²	Capacity	kW	2.2	2.6	3.2	4.0
		kBtu/h	7.5	8.9	10.9	13.6
	Power input	W	25	25	30	30
Airflow rate		m³/h	380/355/330/300/286/263/240		460/440/410/380/355/330/300	
Sound pressure level ³		dB(A)	30/28/27/26/25/24/22		37/36/35/34/32/31/30	38/37/35/34/32/31/30
Sound power level		dB(A)	44/42/41/40/39/38/36		51/50/49/48/46/45/44	52/51/49/48/46/45/44
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	1054×153×425			
	Packed dimensions (WxHxD)	mm	1155×245×490			
	Net/Gross weight	kg	11.8/15.3		12.3/15.8	
Panel	Net dimensions (WxHxD)	mm	1180×25×465			
	Packed dimensions (WxHxD)	mm	1232×107×517			
	Net/Gross weight	kg	3.5/5.2			
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			
	Drain pipe	mm	OD Φ25			

Model			MI2-45Q1DN1	MI2-56Q1DN1	MI2-71Q1DN1
Power supply			1-phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	4.5	5.6	7.1
		kBtu/h	15.4	19.1	24.2
	Power input	W	40	48	60
Heating ²	Capacity	kW	5.0	6.3	8.0
		kBtu/h	17.1	21.5	27.3
	Power input	W	40	48	60
Airflow rate		m³/h	693/662/638/600/556/510/476	792/763/728/688/643/589/549	933/873/815/749/689/637/592
Sound pressure level ³		dB(A)	39/37/36/35/34/32/31	41/39/38/37/36/35/33	43/41/40/39/37/36/35
Sound power level		dB(A)	53/51/50/49/48/46/45	55/53/52/51/50/49/47	57/55/54/53/51/50/49
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	1275×189×450		
	Packed dimensions (WxHxD)	mm	1370×295×505		
	Net/Gross weight	kg	16.1/20.4	16.4/20.7	17.6/22.4
Panel	Net dimensions (WxHxD)	mm	1350×25×505		
	Packed dimensions (WxHxD)	mm	1410×95×560		
	Net/Gross weight	kg	4/5.4		
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25		

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.

Specifications - AC Series

Model			MDV-D18Q1/N1-D(B)	MDV-D22Q1/N1-D(B)	MDV-D28Q1/N1-D(B)	MDV-D36Q1/N1-D(B)
Power supply			1 phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	1.8	2.2	2.8	3.6
	Input	W	41	41	41	41
Heating ²	Capacity	kW	2.2	2.6	3.2	4
	Input	W	41	41	41	41
Indoor fan motor	Type		AC			
	Quantity		1			
Airflow rate (H/M/L)		m ³ /h	523/404/275	523/404/275	573/456/315	573/456/315
Sound pressure level (H/M/L) ³		dB(A)	37/34/30	37/34/30	39/37/34	39/37/34
Refrigerant type			R410A			
Indoor unit	Dimension ⁴ (WxHxD)	mm	1054x153x425			
	Packing (WxHxD)	mm	1155x245x490			
	Net/Gross weight	kg	12.5/16	12.5/16	13/16.5	13/16.5
Panel	Dimension (WxHxD)	mm	1180x25x465			
	Packing (WxHxD)	mm	1232x107x517			
	Net/Gross weight	kg	3.5/5.2			
Pipe connections	Liquid pipe	mm	Φ6.35			
	Gas pipe	mm	Φ12.7			
	Drain pipe	mm	OD Φ25			

Model			MDV-D45Q1/N1-D(B)	MDV-D56Q1/N1-D(B)	MDV-D71Q1/N1-D(B)
Power supply			1 phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	4.5	5.6	7.1
	Input	W	48	48	60
Heating ²	Capacity	kW	5	6.3	8
	Input	W	48	48	60
Indoor fan motor	Type		AC		
	Quantity		1		
Airflow rate (H/M/L)		m ³ /h	693/600/476	792/688/549	933/749/592
Sound pressure level (H/M/L) ³		dB(A)	41/39/35	42/40/36	44/41/37
Refrigerant type			R410A		
Indoor unit	Dimension ⁴ (WxHxD)	mm	1275x189x450		
	Packing (WxHxD)	mm	1370x295x505		
	Net/Gross weight	kg	18.5/22.8	18.8/23.1	19.5/23.8
Panel	Dimension (WxHxD)	mm	1350x25x505		
	Packing (WxHxD)	mm	1410x95x560		
	Net/Gross weight	kg	4/5.4		
Pipe connections	Liquid pipe	mm	Φ6.35	Φ9.53	Φ9.53
	Gas pipe	mm	Φ12.7	Φ15.9	Φ15.9
	Drain pipe	mm	OD Φ25		

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.

Two-way Cassette



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

Key Features

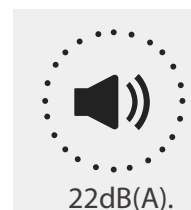
Two-way Cassette		DC Series	AC Series
Comfort	Quiet operation	●	●
	0.5°C/1°C setting temperature adjustment	●	●
	Digital display on/off	●	●
	Buzzer sound on/off	●	●
Health	Fresh air intake	●	●
	Dirty filters indicator signal	●	●
Air flow	Multiple fan speeds	7+auto	3+auto
	Multiple steps vertical swing	5+auto	5+auto
Easy installation	Minimized height	●	●
	High-lift drain pump	Rated head: 1200mm Raise height: 750mm	Rated head: 1200mm Raise height: 750mm

Note:
● equipped as standard

COMFORT

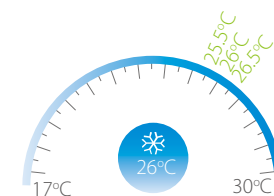
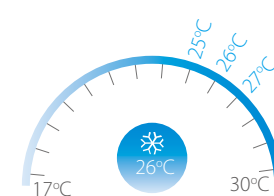
Quiet Operation

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



0.5°C/1°C 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.



Buzzer Sound On/Off

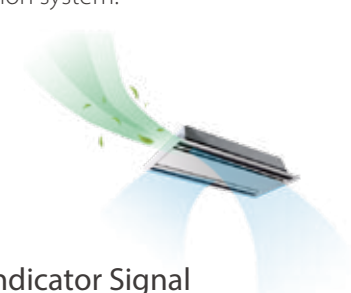
Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



HEALTH

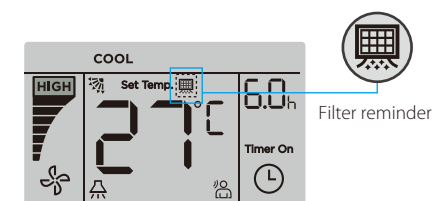
Fresh Air Intake

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

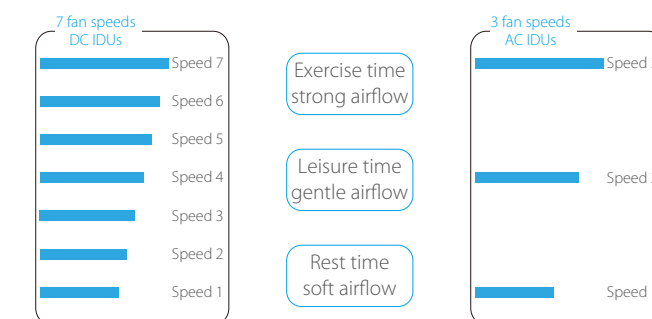
The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.



AIR FLOW

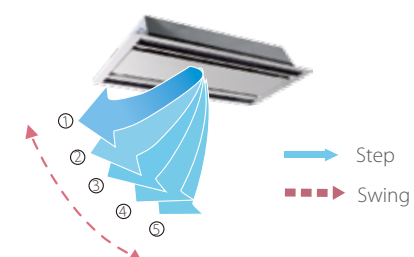
Multiple Fan Speeds

The DC Series supplies 7 indoor fan speeds and AC Series supplies 3 indoor fan speeds to meet the needs of different indoor conditions.



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.



EASY INSTALLATION

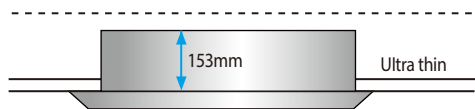
High Airflow

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



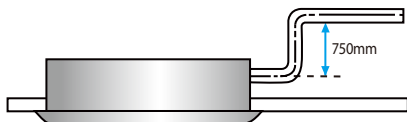
Easy Installation

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



High-lift Drain Pump

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



Specifications - DC Series

Model			MI2-22Q2DN1	MI2-28Q2DN1	MI2-36Q2DN1	MI2-45Q2DN1	MI2-56Q2DN1	MI2-71Q2DN1
Power supply			1-phase, 220-240V, 50Hz					
Cooling ¹	Capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1
		kBtu/h	7.5	9.6	12.3	15.4	19.1	24.2
	Power input	W	35	40	40	50	69	98
Heating ²		kW	2.6	3.2	4.0	5.0	6.3	8.0
	Capacity	kBtu/h	8.9	10.9	13.6	17.1	21.5	27.3
	Power input	W	35	40	40	50	69	98
Airflow rate		m³/h	654/612/571/530/488/449/410		725/679/641/591/554/509/458	850/792/731/670/631/592/550	980/925/855/800/755/702/670	1200/1115/1068/1000/921/808/770
Sound pressure level ³		dB(A)	33/31/30/29/27/25/24		35/33/32/30/29/27/25		37/36/35/34/32/31/30	
Sound power level		dB(A)	49/47/46/45/43/41/40		51/49/48/46/45/43/41		53/52/51/50/48/47/46	
Indoor unit	Net dimensions* (WxHxD)	mm	1172x299x591					
	Packed dimensions (WxHxD)	mm	1355x400x675					
	Net/Gross weight	kg	33.5/42.0			35/43.5		
Panel	Net dimensions (WxHxD)	mm	1430x53x680					
	Packed dimensions (WxHxD)	mm	1525x130x765					
	Net/Gross weight	kg	10.5/15					
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			Φ9.53/Φ15.9		
	Drain pipe	mm	OD Φ32					

Specifications - AC Series

Model			MDV-D22Q2/N1(B)	MDV-D28Q2/N1(B)	MDV-D36Q2/N1(B)	MDV-D45Q2/N1(B)	MDV-D56Q2/N1(B)	MDV-D71Q2/N1(B)
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	1172x299x591					
	Packing (WxHxD)	mm	1355x400x675					
	Net/Gross weight	kg	34/42.5			36/44.5		
Panel	Dimension (WxHxD)	mm	1430x53x680					
	Packing (WxHxD)	mm	1525x130x765					
	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					

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.

Compact Four-way Cassette



Compact design allows installation in shallow ceilings.

Key Features

Compact Four-way Cassette		DC Series	AC Series
Comfort	Quiet operation	●	●
	0.5°C/1°C 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	7+auto	3+auto
	Multiple steps vertical swing	5+auto	5+auto
Easy installation	Compact size	●	●
	High-lift drain pump	Rated head: 1000mm Raise height: 500mm	Rated head: 1000mm Raise height: 500mm

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

COMFORT

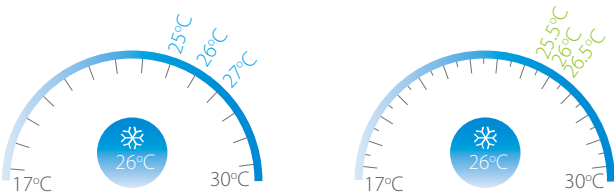
Quiet Operation

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



0.5°C/1°C 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.



Buzzer Sound On/Off

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



HEALTH

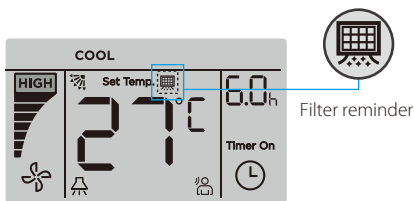
Fresh Air Intake

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

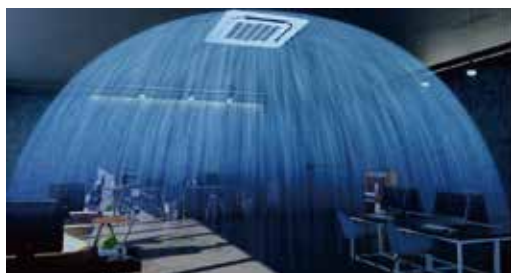
The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.



AIR FLOW

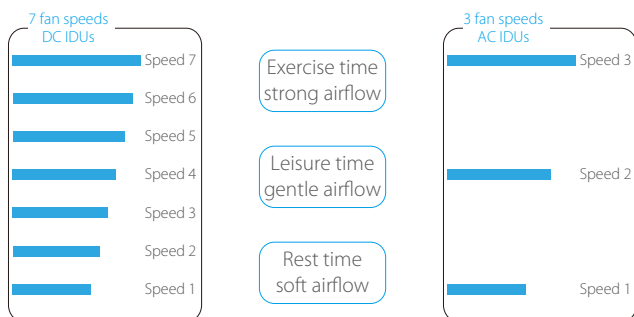
360° Airflow

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.



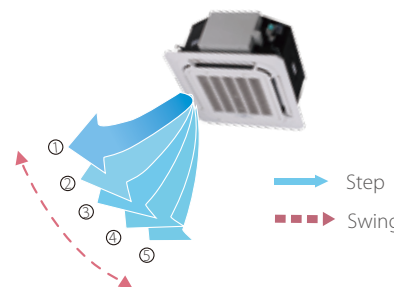
Multiple Fan Speeds

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.



Multiple Steps Vertical Swing

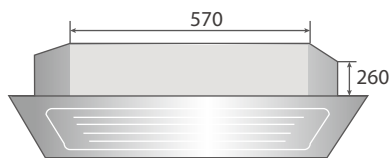
There are 5-steps louver control makes the air flow direction more precisely. In addition, the auto swing mode can better meet different customer needs.



EASY INSTALLATION

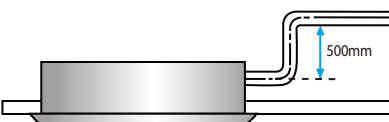
Compact Size

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



High-lift Drain Pump

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



Specifications - DC Series

Model	MI2-17Q4CDN1	MI2-22Q4CDN1	MI2-28Q4CDN1	MI2-36Q4CDN1	MI2-45Q4CDN1	MI2-52Q4CDN1
Power supply	1-phase, 220-240V, 50Hz					
Cooling ¹	Capacity	kW	1.7	2.2	2.8	3.6
	kBtu/h		5.8	7.5	9.6	12.3
Heating ²	Capacity	kW	2.2	2.4	3.2	4.0
	kBtu/h		7.5	8.2	10.9	13.6
Airflow rate	Capacity	kW	35	35	35	40
	kBtu/h		120	120	120	136
Sound pressure level ³	35/34/33/29/26/23/22					
Sound power level	51/50/49/45/42/39/38					
Indoor unit	Net dimensions* (WxHxD)	mm	630x260x570			
	Packed dimensions (WxHxD)	mm	700x345x660			
Panel	Net dimensions (WxHxD)	mm	18/23.8			
	Packed dimensions (WxHxD)	mm	647x50x647			
Pipe connections	Net/Gross weight	kg	19.2/25.0			
	Liquid/Gas pipe	mm	715x123x715			
Pipe connections	Liquid/Gas pipe	mm	2.5/4.5			
	Drain pipe	mm	Φ6.35/Φ12.7			
Pipe connections	Liquid/Gas pipe	mm	OD Φ25			
	Drain pipe	mm				

Specifications - AC Series

Model			MDV-D15Q4/N1-A3(B)	MDV-D22Q4/N1-A3(B)	MDV-D28Q4/N1-A3(B)	MDV-D36Q4/N1-A3(B)	MDV-D45Q4/N1-A3(B)
Power supply			1 phase, 220-240V, 50Hz				
Cooling ¹	Capacity	kW	1.5	2.2	2.8	3.6	4.5
	Input	W	36	50	50	56	56
Heating ²	Capacity	kW	1.7	2.4	3.2	4	5
	Input	W	36	50	50	56	56
Indoor fan motor	Type		AC				
	Quantity		1				
Refrigerant type			R410A				
Airflow rate (H/M/L)		m³/h	400/283/208	414/313/238	414/313/238	521/409/314	521/409/314
Sound pressure level (H/M/L) ³		dB(A)	35/33/23	36/33/23	36/33/23	42/36/29	42/36/29
Indoor unit	Dimension* (WxHxD)	mm	570x260x630				
	Packing (WxHxD)	mm	675x285x675				
	Net/Gross weight	kg	17/20			18.5/21.5	
Panel	Dimension (WxHxD)	mm	647x50x647				
	Packing (WxHxD)	mm	715x123x715				
	Net/Gross weight	kg	2.5/4.5				
Pipe connections	Liquid pipe	mm	Φ6.35				
	Gas pipe	mm	Φ12.7				
	Drain pipe	mm	ODΦ25				

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.

Four-way Cassette



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

Key Features

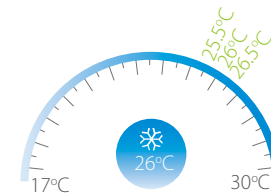
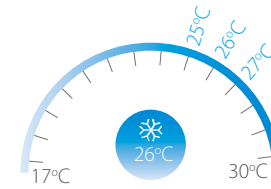
Four-way Cassette		DC Series	AC Series
Comfort	Quiet operation	●	●
	0.5°C/1°C setting temperature adjustment	●	●
	Digital display on/off	●	●
	Buzzer sound on/off	●	●
Health	Air filter	○ (G3-class)	●
	Fresh air intake	●	●
	Dirty filters indicator signal	●	●
Air flow	360° airflow	●	●
	Individual louver control	○	○
	Soft wind	●	●
	Multiple fan speeds	7+auto	3+auto
	Multiple steps vertical swing	5+auto	5+auto
Easy installation	Compact size	●	●
	High ceiling installation	●	●
	High-lift drain pump	Rated head: 1200mm Raise height: 750mm	Rated head: 1200mm Raise height: 750mm

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

COMFORT

0.5°C/1°C 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.



Buzzer Sound On/Off

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



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.

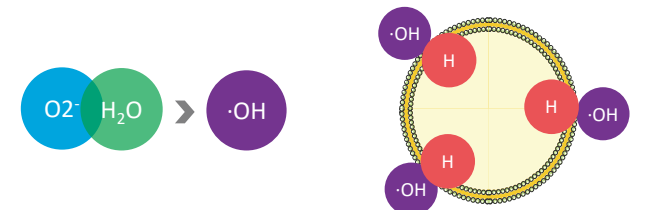


The optional filter comply with EN779:2012

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

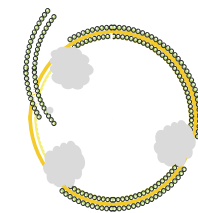
Ionizer Sterilization

The powerful Ionizer protects you from bad odors and harmful bacteria. The circulating sterilization rate is over 96%.

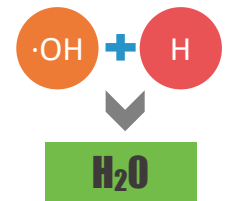


1.Negative ions combine with water molecules to form OH radicals

2.OHradical extraction of hydrogen from bacterial proteins



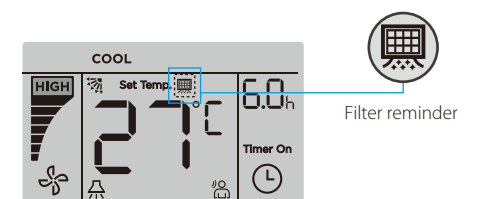
3.Components of bacterial tissues are destroyed and become ineffective (realize sterilization)



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.



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 separately, making it possible to control all four louvers independently.



*This function is available as a customization option.

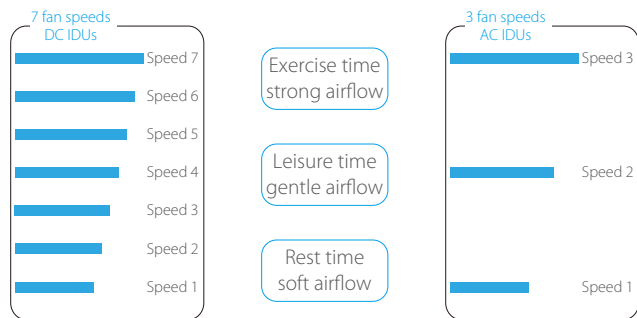
Soft Wind Mode

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



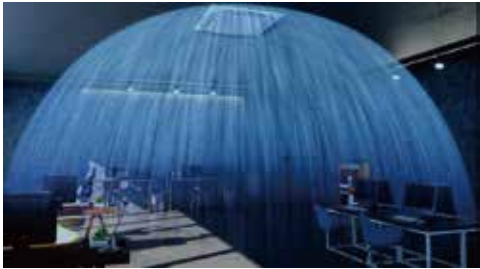
Multiple Fan Speeds

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.



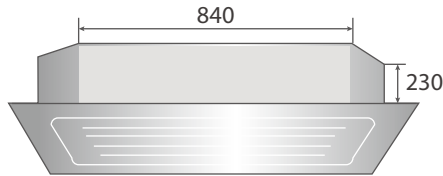
High Ceiling Installation

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.



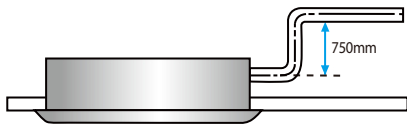
Compact Size

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.



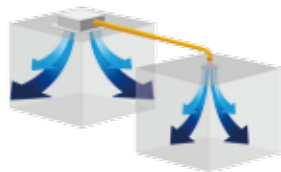
High-lift Drain Pump

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



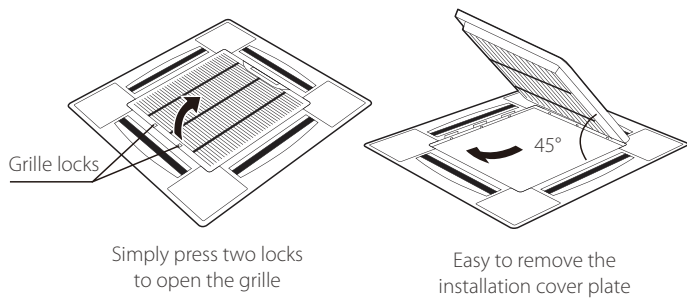
Sub Duct

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.



Specifications - DC Series

Model			MI2-28Q4DN1	MI2-36Q4DN1	MI2-45Q4DN1	MI2-56Q4DN1	MI2-71Q4DN1
Power supply			1 phase, 220-240V, 50Hz				
Cooling ¹	Capacity	kW	2.8	3.6	4.5	5.6	7.1
		kBtu/h	9.6	12.3	15.4	19.1	24.2
	Power input	W	40	45	50	60	70
Heating ²	Capacity	kW	3.2	4.0	5.0	6.3	8.0
		kBtu/h	10.9	13.6	17.1	21.5	27.3
	Power input	W	40	45	50	60	70
Airflow rate		m³/h	801/751/711/658/637/611/542		893/866/804/744/714/698/635		977/937/864/800/778/738/671
Sound pressure level ³		dB(A)	32/31/30/28/28/26/23		35/34/31/31/30/28/26		35/35/34/31/30/28/27
Sound power level		dB(A)	47/46/45/43/43/41/39		50/49/46/46/45/42/40		50/49/47/47/45/42/41
Indoor unit	Net dimensions* (WxHxD)	mm	840x230x840				
	Packed dimensions (WxHxD)	mm	955x260x955				
	Net/Gross weight	kg	21.3/25.8		23.2/27.6		
Panel	Net dimensions (WxHxD)	mm	950x54.5x950				
	Packed dimensions (WxHxD)	mm	1035x90x1035				
	Net/Gross weight	kg	5.5/8.2				
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ32				

Model			MI2-80Q4DN1	MI2-90Q4DN1	MI2-100Q4DN1	MI2-112Q4DN1	MI2-140Q4DN1
Power supply			1 phase, 220-240V, 50Hz				
Cooling ¹	Capacity	kW	8.0	9.0	10.0	11.2	14.0
		kBtu/h	27.3	30.7	34.1	38.2	47.8
	Power input	W	96	100	150	160	170
Heating ²	Capacity	kW	9.0	10.0	11.0	12.5	16.0
		kBtu/h	30.7	34.1	37.5	42.7	54.6
	Power input	W	96	100	150	160	170
Airflow rate		m³/h	1203/1131/1064/ 977/912/840/774	1349/1294/1230/ 1201/1111/1029/970	1700/1600/1440/1250/ 1200/1150/1100	1700/1600/1440/1250/ 1200/1150/1100	1800/1650/1500/1300/ 1250/1200/1150
Sound pressure level ³		dB(A)	36/35/34/31/31/29/28	37/35/34/31/31/30/28	43/42/40/38/37/35/34		45/44/42/41/40/39/37
Sound power level		dB(A)	52/49/48/46/46/42/42	53/49/48/46/46/44/43	58/57/55/53/52/50/49		60/59/57/56/55/54/52
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	840×230×840		840×300×840		
	Packed dimensions (WxHxD)	mm	955×260×955		955×330×955		
	Net/Gross weight	kg	23.2/27.6		28.4/33.8		30.7/35.8
Panel	Net dimensions (WxHxD)	mm	950×54.5×950				
	Packed dimensions (WxHxD)	mm	1035×90×1035				
	Net/Gross weight	kg	5.5/8.2				
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9				
	Drain pipe	mm	OD Φ32				

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

Specifications - AC Series

Model			MDV-D28Q4/N1-E(B)	MDV-D36Q4/N1-E(B)	MDV-D45Q4/N1-E(B)	MDV-D56Q4/N1-E(B)	MDV-D71Q4/N1-E(B)
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* (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			MDV-D80Q4/N1-E(B)	MDV-D90Q4/N1-E(B)	MDV-D100Q4/N1-E(B)	MDV-D112Q4/N1-E(B)	MDV-D140Q4/N1-E(B)
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* (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°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.

Medium Static Pressure Duct



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

Key Features

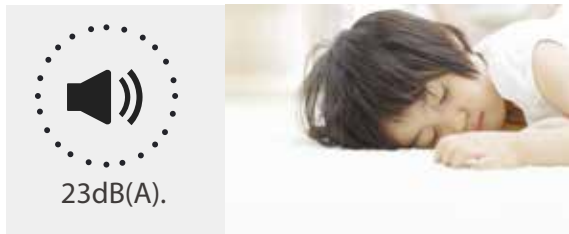
Medium Static Pressure Duct		DC Series	AC Series
Comfort	Quiet operation	●	●
	0.5°C/1°C setting temperature adjustment	●	●
	Digital display on/off	●	●
	Buzzer sound on/off	●	●
Health	Air filter	● ○ (G3-class)	● ○ (G3-class)
	Innovative puro-air kit	●	●
	Fresh air intake	●	●
	Dirty filters indicator signal	●	●
Air flow	Adjustable ESP	10-steps	×
	Multiple fan speeds	7+auto	3+auto
Easy installation	Compact size	●	●
	Stylish air discharge panel	○ (17 to 71)	○ (17 to 71)
	Flexible air inlet port installation	●	●
	High-lift drain pump	Rated head: 1200mm Raise height: 750mm	Rated head: 1200mm Raise height: 750mm

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

COMFORT

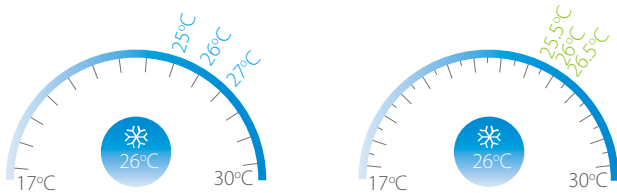
Quiet Operation

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.



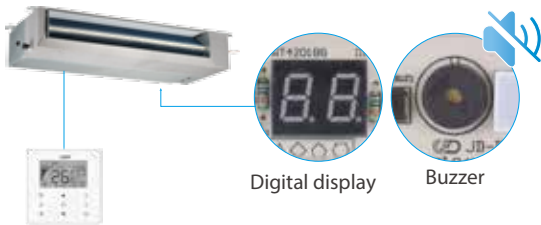
0.5°C/1°C Setting Temperature Adjustment

Set temperature can be adjusted in 0.5°C or 1°C 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.



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
- 99.9%** Effective killing rate of white grape fungus
- 99.9%** Effective killing rate of H1N1
- 98%** Effective killing rate of natural bacteria
- Ozone -Free**
- UV leakage-Free**

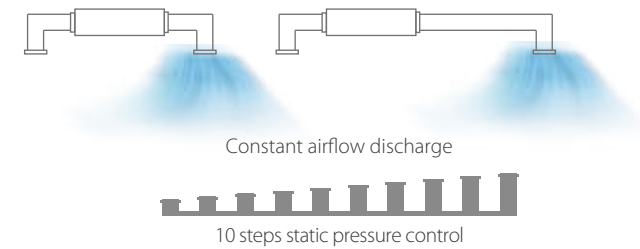
*The indoor unit needs to be customized in order to use the Puro-air Kit.



AIR FLOW

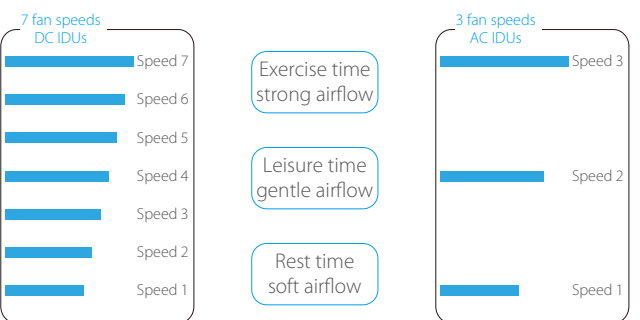
Static Pressure 10 Steps Control

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.



Multiple Fan Speeds

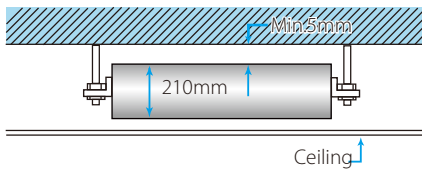
The DC Series comes with 7 indoor fan speed options and AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.



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.



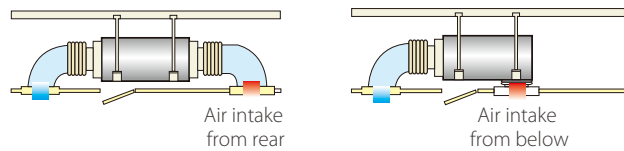
Stylish Air Discharge Panel

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



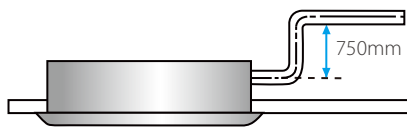
Flexible Air Inlet Port Installation

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



High-lift Drain Pump

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



Specifications - DC Series

Standard Series

Model			MI2-17T2DN1	MI2-22T2DN1	MI2-28T2DN1	MI2-36T2DN1
Power supply			1 phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	1.7	2.2	2.8	3.6
		kBtu/h	5.8	7.5	9.6	12.3
Heating ²	Capacity	kW	2.2	2.6	3.2	4.0
		kBtu/h	7.5	8.2	10.9	13.6
Airflow rate		m ³ /h	520/480/440/400/360/330/300			
		m ³ /h	580/540/500/460/430/400/370			
External static pressure			10(0~50)			
Sound pressure level ³			32/31/29/28/26/25/23			
Sound power level			50/49/47/46/44/43/41			
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	780x210x500			
	Packed dimensions (WxHxD)	mm	870x285x525			
	Net/Gross weight	kg	18/21			
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/ Φ12.7			
	Drain pipe	mm	OD Φ25			

Model			MI2-45T2DN1		MI2-56T2DN1		MI2-71T2DN1	
Power supply			1 phase, 220-240V, 50Hz					
Cooling ¹	Capacity	kW	4.5		5.6		7.1	
		kBtu/h	15.4		19.1		24.2	
	Power input	W	92		92		98	
Heating ²	Capacity	kW	5.0		6.3		8.0	
		kBtu/h	17.1		21.5		27.3	
	Power input	W	92		92		98	
Airflow rate		m ³ /h	800/740/680/620/540/480/400		830/760/720/680/640/600/560		1000/960/900/840/780/720/680	
External static pressure		Pa	10 (0~70)					
Sound pressure level ³		dB(A)	36/34/32/31/29/27/25		36/34/33/32/30/29/28		37/35/33/32/30/29/28	
Sound power level		dB(A)	54/52/50/49/47/45/43		54/52/51/50/48/47/46		55/53/51/50/48/47/46	
Indoor unit	Net dimensions* (WxHxD)		mm		1000×210×500		1220×210×500	
	Packed dimensions (WxHxD)		mm		1090×285×525		1335×285×525	
	Net/Gross weight		kg		21.5/25		25.7/30.2	
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/ Φ12.7		Φ9.53/Φ15.9			
	Drain pipe	mm	OD Φ25					

Specifications - AC Series

Model			MI2-80T2DN1	MI2-90T2DN1	MI2-112T2DN1	MI2-140T2DN1	
Power supply			1 phase, 220-240V, 50Hz				
Cooling ¹	Capacity	kW	8.0	9.0	11.2	14.0	
		kBtu/h	27.3	30.7	38.2	47.8	
Heating ²	Power input	W	110	120	200	250	
		kW	9.0	10.0	12.5	15.5	
	Capacity	kBtu/h	30.7	34.1	42.7	52.9	
		Power input	W	110	120	200	250
Airflow rate		m ³ /h	1260/1180/1100/1020/940/860/780			1500/1430/1360/1290/1210/1140/1080	1960/1860/1760/1660/1560/1460/1360
External static pressure		Pa	20 (10~100)			40 (30~150)	
Sound pressure level ³		dB(A)	37/35/34/33/31/29/28			39/38/38/37/35/34/33	41/39/38/37/36/35/33
Sound power level		dB(A)	55/53/52/51/49/47/46			57/56/56/55/53/52/51	59/57/56/55/54/53/51
Indoor unit	Net dimensions* (WxHxD)	mm	1230x270x775			1290x300x865	
	Packed dimensions (WxHxD)	mm	1355x355x795			1400x375x925	
	Net/Gross weight	kg	36.5/44.5	37/45			46.5/55.5
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9				
	Drain pipe	mm	OD Φ25				

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.

Specifications - DC Series

ESP Increased Series

Model			MI2-22T2DN1(A)	MI2-28T2DN1(A)	MI2-36T2DN1(A)
Power supply			1-phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	2.2	2.8	3.6
		kBtu/h	7.5	9.6	12.3
	Power input	W	22	27	34
Heating ²	Capacity	kW	2.6	3.2	4
		kBtu/h	8.2	10.9	13.6
	Power input	W	22	27	34
Airflow rate ³		m³/h	430/420/410/400/390/380/370	500/480/460/430/400/380/370	580/540/500/460/430/400/370
External static pressure		Pa	30 (0~80)		
Sound pressure level ⁴		dB(A)	26/26/25/25/24/22/21	28/27/26/25/24/22/22	31/30/28/26/25/23/22
Sound power level		dB(A)	46/46/45/44/43/42/41	47/47/46/45/44/43/42	50/49/47/45/44/41/40
Indoor unit	Net dimensions ⁵ (W×H×D)	mm	920×210×450		
	Packed dimensions (W×H×D)	mm	1140×292×560		
	Net/Gross weight	kg	21/25		
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7		
	Drain pipe	mm	OD Φ25		

Model			MI2-45T2DN1(A)	MI2-56T2DN1(A)	MI2-71T2DN1(A)
Power supply			1-phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	4.5	5.6	7.1
		kBtu/h	15.4	19.1	24.2
	Power input	W	55	63	79
Heating ²	Capacity	kW	5	6.3	8
		kBtu/h	17.1	21.5	27.3
	Power input	W	55	63	79
Airflow rate ³		m³/h	910/850/790/730/670/610/550	1000/945/885/825/765/705/635	1270/1200/1130/1060/990/920/850
External static pressure		Pa	30 (0~150)		
Sound pressure level ⁴		dB(A)	37/36/35/33/31/29/27	38/36/35/33/31/29/28	38/37/35/34/31/29
Sound power level		dB(A)	56/54/53/52/50/47/45	57/56/55/52/50/49/48	59/58/57/55/54/53/50
Indoor unit	Net dimensions ⁵ (W×H×D)	mm	920×270×570	920×270×570	1140×270×710
	Packed dimensions (W×H×D)	mm	1145×355×705	1145×355×705	1370×365×855
	Net/Gross weight	kg	29/34	29/34	36/42
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25		

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.

Model			MDV-D22T2/N1-DA5(B)	MDV-D28T2/N1-DA5(B)	MDV-D36T2/N1-DA5(B)	MDV-D45T2/N1-DA5(B)	MDV-D56T2/N1-DA5(B)
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	870x285x525			1115x285x525	
	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			MDV-D71T2/N1-DA5(B)	MDV-D80T2/N1-BA5(B)	MDV-D90T2/N1-BA5(B)	MDV-D112T2/N1-BA5(B)	MDV-D140T2/N1-BA5(B)
Power supply			1 phase, 220-240V,50Hz				
Cooling ¹	Capacity	kW	7.1	8	9	11.2	14
	Input	W	140	198	200	313	274
Heating ²	Capacity	kW	8	9	10	12.5	15.5
	Input	W	140	198	200	313	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	1905/1636/1400
External static pressure (Std(Min~Max))		Pa	10(0~30)	20(10~50)	20(10~50)	40(10~80)	40(10~100)
Sound pressure level (H/M/L) ³		dB(A)	36/30/27	45/40/37	45/40/37	48/42/38	48/43/39
Indoor unit	Dimension ⁴ (WxHxD)	mm	1218x210x500	1230x270x775			1290x300x865
	Packing (WxHxD)	mm	1335x285x525	1355x350x795			1400x375x925
	Net/Gross weight	kg	27.5/31	37.5/43			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°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.

High Static Pressure Duct



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

Key Features

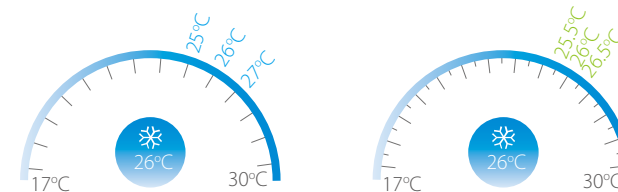
High Static Pressure Duct		DC Series	AC Series
Comfort	Quiet operation	●	●
	0.5°C/1°C setting temperature adjustment	●	●
	Digital display on/off	●	●
	Buzzer sound on/off	●	●
Health	Air filter	● ○ (G3-class)	● ○ (G3-class)
	Innovative puro-air kit	○	○
	Dirty filters indicator signal	●	●
Air flow	Adjustable ESP	20-steps	×
	Multiple fan speeds	7+auto	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°C/1°C Setting Temperature Adjustment

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



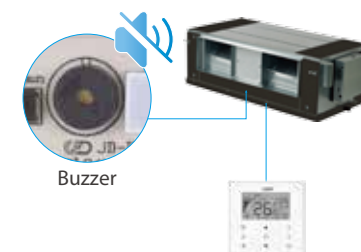
Digital Display On/Off

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



Buzzer Sound On/Off

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



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

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.

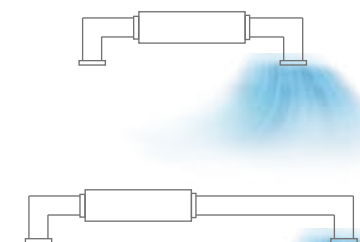


The optional filter comply with EN779:2012

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.



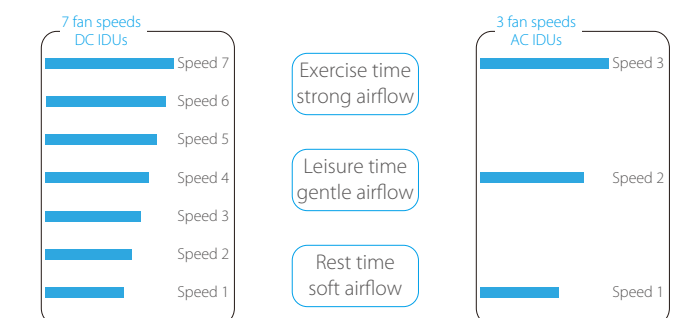
Constant airflow discharge



20 steps static pressure control

Multiple Fan Speeds

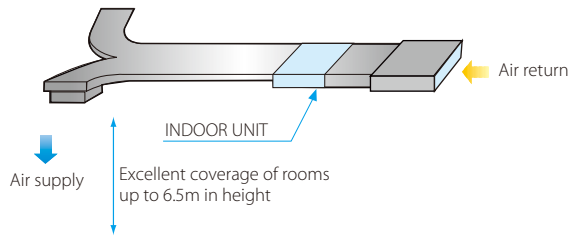
The DC Series comes with 7 indoor fan speed options and AC Series with 3 indoor fan speed options to meet the needs of different indoor conditions.



EASY INSTALLATION

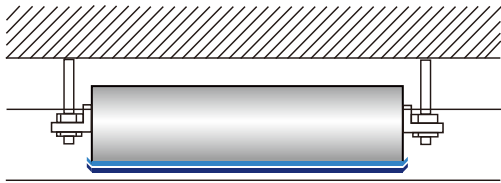
Flexible Duct Design

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.



Double-skin Drainage Pan

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



Specifications - DC Series

Model			MI2-71T1DN1	MI2-80T1DN1	MI2-90T1DN1	MI2-112T1DN1
Power supply			1-phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	7.1	8.0	9.0	11.2
		kBtu/h	24.2	27.3	30.7	38.2
	Power input	W	180	180	220	380
Heating ²	Capacity	kW	8.0	9.0	10.0	12.5
		kBtu/h	27.3	30.7	34.1	42.7
	Power input	W	180	180	220	380
Airflow rate			m³/h 1360/1327/1293/1260/1227/1193/1160 1420/1373/1327/1280/1233/1187/1140 1870/1783/1697/1610/1523/1437/1350			
External static pressure			Pa 100(30~200)			
Sound pressure level ³			dB(A) 42/41/40/40/39/38 45/44/43/42/41/40/39 48/47/46/45/43/42/41			
Sound power level			dB(A) 60/59/58/58/57/57/56 63/62/61/60/59/58/57 66/65/64/63/61/60/59			
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	965×423×690			
	Packed dimensions (WxHxD)	mm	1090×440×768			
	Net/Gross weight	kg	41/47 48/55 48/55			
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9			
	Drain pipe	mm	OD Φ25			

Model			MI2-140T1DN1	MI2-160T1DN1	MI2-200T1DN1	MI2-250T1DN1
Power supply			1-phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	14.0	16.0	20.0	25.0
		kBtu/h	47.8	54.6	68.2	85.3
	Power input	W	420	700	990	1200
Heating ²	Capacity	kW	16.0	17.0	22.5	26.0
		kBtu/h	54.6	58.0	76.8	88.7
	Power input	W	420	700	990	1200
Airflow rate			m³/h 2240/2133/2027/1920/1813/1707/1600 2660/2530/2400/2270/2140/2010/1880 4330/4230/4130/4030/3930/3830/3730			
External static pressure			Pa 100(30~200)			
Sound pressure level ³			dB(A) 45/44/43/42/41/40/40 46/45/44/43/42/41/40 51/50/50/49/49/48/47			
Sound power level			dB(A) 63/62/61/60/59/58/58 64/63/62/61/60/59/58 69/68/68/67/67/66/65			
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	1322×423×691			
	Packed dimensions (WxHxD)	mm	1436×450×768			
	Net/Gross weight	kg	68/76 130/142 1509×550×990			
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9			
	Drain pipe	mm	OD Φ25			

Model			MI2-280T1DN1	MI2-400T1DN1	MI2-450T1DN1	MI2-560T1DN1
Power supply			1-phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	28.0	40.0	45.0	56.0
		kBtu/h	95.0	136.5	153.6	191.1
	Power input	W	1200	1800	1800	2272
Heating ²	Capacity	kW	31.5	45.0	56.0	63.0
		kBtu/h	107.5	153.6	191.1	215.0
	Power input	W	1200	1800	1800	2272
Airflow rate			m³/h 4330/4230/4130/4030/3930/3830/3730 6500/6150/5800/5450/5100/4750/4400 7400/7000/6600/6200/5800/5400/5000			
External static pressure			Pa 170(20~250) 300(100~400) 300(100~400)			
Sound pressure level ³			dB(A) 51/50/49/49/48/48/47 60/59/58/57/55/54/52 59/58/57/56/55/53/51			
Sound power level			dB(A) 69/68/67/67/66/66/65 78/77/76/75/73/72/70 77/76/75/74/73/71/69			
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	1454×515×931			
	Packed dimensions (WxHxD)	mm	1509×550×990			
	Net/Gross weight	kg	130/142 220/245 218/248			
Pipe connections	Liquid/Gas pipe	mm	Φ12.7/Φ22.2			
	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.

Specifications - AC Series

Model			MDV-D71T1/N1-B(B)	MDV-D80T1/N1-B(B)	MDV-D90T1/N1-B(B)	MDV-D112T1/N1-B(B)	MDV-D140T1/N1-B(B)	MDV-D160T1/N1-B(B)
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			MDV-D200T1/N1-B(B)	MDV-D250T1/N1-B(B)	MDV-D280T1/N1-B(B)	MDV-D400T1/N1(B)	MDV-D450T1/N1(B)	MDV-D560T1/N1(B)
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	1454x515x931			2010x680x905		
	Packing (WxHxD)	mm	1509x550x990			2095x800x964		
	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.

Wall Mounted



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

Key Features

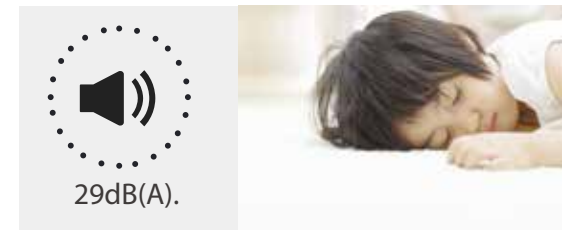
Wall Mounted		DC Series	AC Series
Comfort	Quiet operation	●	●
	0.5°C/1°C setting temperature adjustment	●	●
	Digital display on/off	●	●
	Buzzer sound on/off	●	●
Health	Air filter	●	●
	Dirty filters indicator signal	●	●
Air flow	Multiple fan speeds	7+auto	7+auto
	Multiple steps vertical swing	5+auto	5+auto
Easy installation	Compact size	●	●
	Pure white stylish panel	4 options	4 options
	Exposed installation, no need ceilings	●	●
	Flexible pipe outlet direction	●	●

Note:
●: equipped as standard

COMFORT

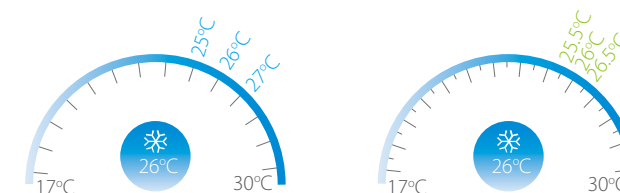
Quiet Operation

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



0.5°C/1°C Setting Temperature Adjustment

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



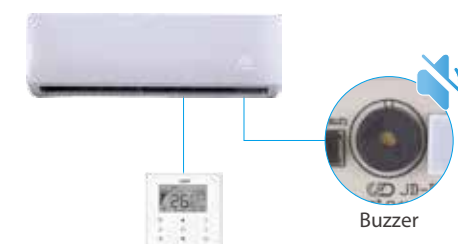
Digital Display On/Off

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



Buzzer Sound On/Off

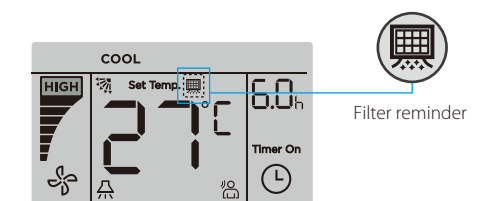
Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



HEALTH

Dirty Filters Indicator Signal

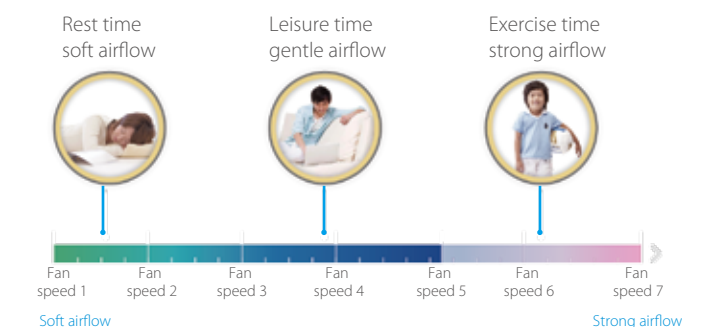
The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.



AIR FLOW

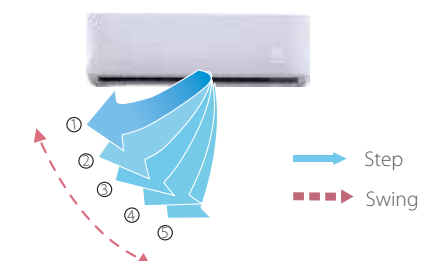
Multiple Fan Speeds

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



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.



EASY INSTALLATION

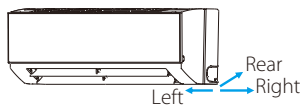
Pure White Stylish Panel

Pure white stylish panel with four options (M2, M9, M10 and M11), perfect fusion in all kinds of decoration.



Flexible Pipe Outlet Direction

Multi-outlet pipe method for both refrigerant pipe and drain pipe: left/right/rear, more flexible for installation.



Exposed Installation, No Need Ceilings

The Wall Mounted can be installed against a wall, no need ceilings, simplifying installation.



Specifications - DC Series

Model			MI2-17GDN1	MI2-22GDN1	MI2-28GDN1
Power supply			1 phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	1.7	2.2	2.8
	kBtu/h		5.8	7.5	9.6
	Power input	W	28	28	28
	kW		2.2	2.4	3.2
Heating ²	Capacity	kBtu/h	7.5	8.2	10.9
	Power input	W	28	28	28
Airflow rate			m ³ /h 411/402/393/385/378/368/356	422/411/402/393/380/368/356	417/402/386/370/353/338/316
Sound pressure level ³			dB(A) 31/30/30/30/29/29/29	31/30/30/30/29/29/29	31/30/30/30/29/29/29
Sound power level			dB(A) 46/45/45/45/44/44/44	46/45/45/45/44/44/44	46/45/45/45/44/44/44
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	835×280×203		
	Packed dimensions (WxHxD)	mm	935×385×320		
	Net/Gross weight	kg	8.4/12.1	8.4/12.1	9.5/13.1
	Liquid/Gas pipe	mm	Φ6.35/Φ12.7		
Pipe connections	Drain pipe	mm	OD Φ16		

Model			MI2-36GDN1	MI2-45GDN1	MI2-56GDN1
Power supply			1 phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	3.6	4.5	5.6
	kBtu/h		12.3	15.4	19.1
	Power input	W	30	40	45
	kW		4.0	5.0	6.3
Heating ²	Capacity	kBtu/h	13.6	17.1	21.5
	Power input	W	30	40	45
Airflow rate			m ³ /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 ³			dB(A) 33/32/32/31/31/30/30	35/34/33/33/32/31/31	38/37/36/36/35/34/34
Sound power level			dB(A) 48/47/47/46/46/45/45	50/49/48/48/47/46/46	53/52/51/51/50/49/49
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	990×315×223		
	Packed dimensions (WxHxD)	mm	1085×420×335		
	Net/Gross weight	kg	11.4/15.5	12.8/16.9	
	Liquid/Gas pipe	mm	Φ6.35/Φ12.7		
Pipe connections	Drain pipe	mm	OD Φ16		

Model			MI2-71GDN1	MI2-80GDN1	MI2-90GDN1
Power supply			1 phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	7.1	8.0	9.0
	kBtu/h		24.2	27.3	30.7
	Power input	W	55	55	82
	kW		8.0	9.0	10.0
Heating ²	Capacity	kBtu/h	27.3	30.7	34.1
	Power input	W	55	55	82
Airflow rate			m ³ /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 ³			dB(A) 44/43/42/39/38/37/36	44/43/42/39/38/37/36	48/46/45/43/41/40/38
Sound power level			dB(A) 59/58/57/54/53/52/51	59/58/57/54/53/52/51	63/61/60/58/56/55/53
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	1194×343×262		
	Packed dimensions (WxHxD)	mm	1290×375×460		
	Net/Gross weight	kg	17.0/22.4		
	Liquid/Gas pipe	mm	Φ9.53/Φ15.9		
Pipe connections	Drain pipe	mm	OD Φ16		

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. ound 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.

Specifications - AC Series

Model			MDV-D22G/N1-M	MDV-D28G/N1-M	MDV-D36G/N1-M	MDV-D45G/N1-M
Power supply			1 phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	2.2	2.8	3.6	4.5
	Input	W	29	29	31	45
Heating ²	Capacity	kW	2.4	3.2	4	5
	Input	W	29	29	31	45
Indoor fan motor	Type		AC			
	Quantity		1			
Refrigerant type			R410A			
Airflow rate			m ³ /h 446/429/424/409/394/382/373	457/445/433/421/419/410/402	447/429/399/369/339/333/303	648/618/582/563/546/505/476
Sound pressure level ³			dB(A) 34/33/33/32/32/31/31	33/33/32/32/31/31/31	36/35/34/33/32/32/32	37/36/34/34/33/32/31
Indoor unit	Dimension ⁴ (WxHxD)	mm	835×280×203			990×315×223
	Packing (WxHxD)	mm	915×353×300			1075×395×300
	Net/Gross weight	kg	8.5/11.0	8.5/11.0	9.7/12.2	13.8/16.4
Pipe connections	Liquid pipe	mm	Φ6.35			
	Gas pipe	mm	Φ12.7			
	Drain pipe	mm	OD Φ16			

Model			MDV-D56G/N1-M	MDV-D71G/N1-M	MDV-D80G/N1-M	MDV-D90G/N1-M
Power supply			1 phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	5.6	7.1	8	9
	Input	W	54	77	77	90
Heating ²	Capacity	kW	6.3	8	9	10
	Input	W	54	77	77	90
Indoor fan motor	Type		AC			
	Quantity		1			
Refrigerant type			R410A			
Airflow rate			m ³ /h 798/764/723/691/665/627/595	1240/1171/1107/1045/976/914/869	1248/1194/1119/1056/993/914/863	1427/1403/1303/1232/1186/1096/1043
Sound pressure level ³			dB(A) 42/41/40/39/38/37/36	48/47/45/44/42/39/38	48/47/45/43/42/39/38	52/51/50/49/47/45/43
Indoor unit	Dimension ⁴ (WxHxD)	mm	990×315×223	1194×343×262		
	Packing (WxHxD)	mm	1075×395×300	1265×420×345		
	Net/Gross weight	kg	13.8/16.4	17.4/20.8	17.6/21.0	17.6/21.0
Pipe connections	Liquid pipe	mm	Φ9.53			
	Gas pipe	mm	Φ15.9			
	Drain pipe	mm	OD Φ16			

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. ound 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.

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

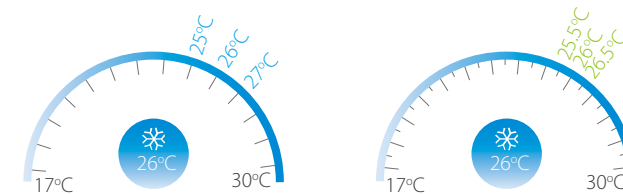
Ceiling & Floor		DC Series	AC Series
Comfort	Quiet operation	●	●
	0.5°C/1°C setting temperature adjustment	●	●
	Digital display on/off	●	●
	Buzzer sound on/off	●	●
Health	Air filter	●	●
	Dirty filters indicator signal	●	●
Air flow	Multiple fan speeds	7+auto	3+auto
	Multiple steps vertical swing	5+auto	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°C/1°C Setting Temperature Adjustment

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



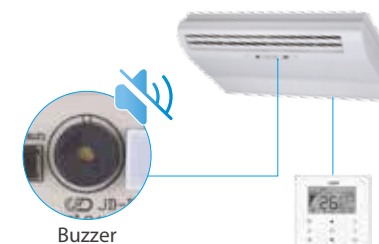
Digital Display On/Off

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



Buzzer Sound On/Off

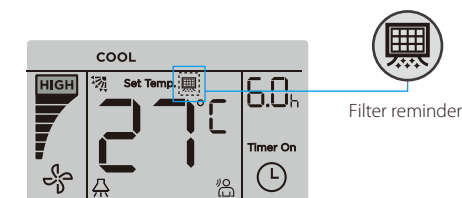
Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



HEALTH

Dirty Filters Indicator Signal

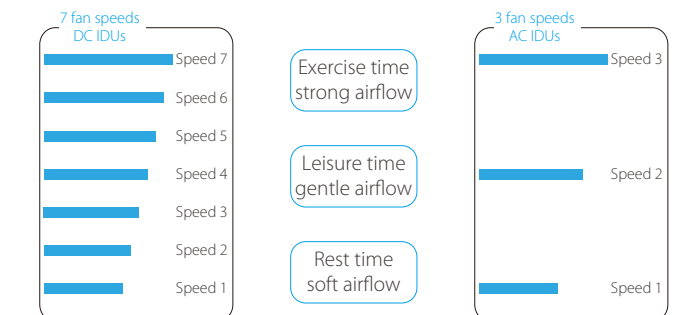
The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.



AIR FLOW

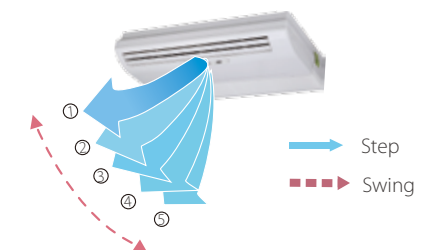
Multiple Fan Speeds

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.



Multiple Steps Vertical Swing and Horizontal Swing

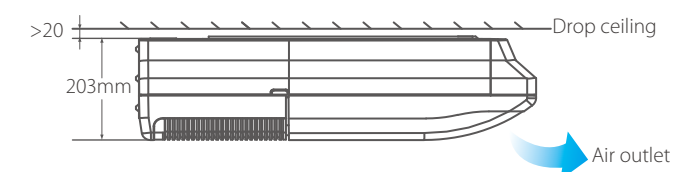
Vertical air flow direction can be adjusted 5 steps and horizontal air flow direction can be adjusted manually, both vertical and horizontal can be set auto swing.



EASY INSTALLATION

Pure White Stylish Panel with Slim Design

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



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.



Specifications - DC Series

Model			MI2-36DLDN1	MI2-45DLDN1	MI2-56DLDN1	MI2-71DLDN1
Power supply			1 phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	3.6	4.5	5.6	7.1
		kBtu/h	12.3	15.4	19.1	24.2
	Power input	W	49	115	115	115
Heating ²	Capacity	kW	4.0	5.0	6.3	8.0
		kBtu/h	13.6	17.1	21.5	27.3
	Power input	W	49	115	115	115
Airflow rate		m³/h	550/525/500/480/460/440/420		800/750/700/650/600/550/500	
Sound pressure level ³		dB(A)	40/39/38/38/37/36/36		43/42/41/41/39/38/38	
Sound power level		dB(A)	53/52/51/51/50/49/49		56/55/54/54/52/51/51	
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	990×660×203			
	Packed dimensions (WxHxD)	mm	1089×744×296			
	Net/Gross weight	kg	27/33		28/34	
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ16			

Model			MI2-80DLDN1	MI2-90DLDN1	MI2-112DLDN1	MI2-140DLDN1
Power supply			1 phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	8.0	9.0	11.2	14.0
		kBtu/h	27.2	30.7	38.2	47.8
	Power input	W	130	130	180	180
Heating ²	Capacity	kW	9.0	10.0	12.5	15.0
		kBtu/h	30.7	34.1	42.7	51.2
	Power input	W	130	130	180	180
Airflow rate		m³/h	1280/1245/1210/1170/1130/1085/1050		1890/1830/1765/1700/1660/1620/1580	
Sound pressure level ³		dB(A)	45/44/43/43/42/41/40		47/46/45/45/44/43/42	
Sound power level		dB(A)	58/57/56/56/55/54/53		60/59/58/58/57/56/55	
Indoor unit	Net dimensions* (WxHxD)	mm	1280×660×203		1670×680×244	
	Packed dimensions (WxHxD)	mm	1379×744×296		1915×760×330	
	Net/Gross weight	kg	35/41		48/58	
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9			
	Drain pipe	mm	OD Φ16			

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. Floor standing: Sound level is measured 1m horizontally and 1m vertically from the air-outlet.
Ceiling mounted: Sound level is measured 1m horizontally and 1m vertically from the air-outlet.
4. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Specifications - AC Series

Model			MDV-D36DL/N1-C(B)	MDV-D45DL/N1-C(B)	MDV-D56DL/N1-C(B)	MDV-D71DL/N1-C(B)
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			MDV-D80DL/N1-C(B)	MDV-D90DL/N1-C(B)	MDV-D112DL/N1-C(B)	MDV-D140DL/N1-C(B)
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	1280x203x660			1670x244x680
	Packing (WxHxD)	mm	1379x296x744			1764x329x760
	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°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. Floor standing: Sound level is measured 1m horizontally and 1m vertically from the air-outlet.
Ceiling mounted: Sound level is measured 1m horizontally and 1m vertically from the air-outlet.
4. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Floor Standing



Floor standing unit with multi casing options can be installed quickly and easily in new or existing facilities in a variety of applications.

Key Features

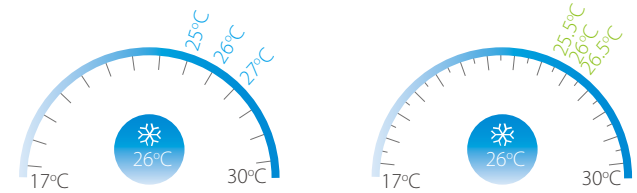
Floor Standing		DC Series
Comfort	Quiet operation	●
	0.5°C/1°C setting temperature adjustment	●
	Digital display on/off	●
	Buzzer sound on/off	●
Health	Air filter	●
	Dirty filters indicator signal	●
Air flow	Multiple fan speeds	7+auto
Easy installation	Pure white stylish panel with slim design	●
	Exposed installation, easy installation and maintenance	●
	Multiple Appearance Options	●

Note:
●: equipped as standard

COMFORT

0.5°C/1°C Setting Temperature Adjustment

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



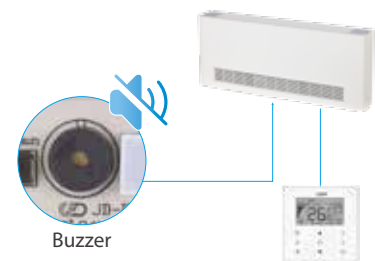
Digital Display On/Off

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



Buzzer Sound On/Off

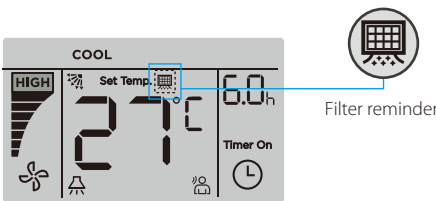
Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



HEALTH

Dirty Filters Indicator Signal

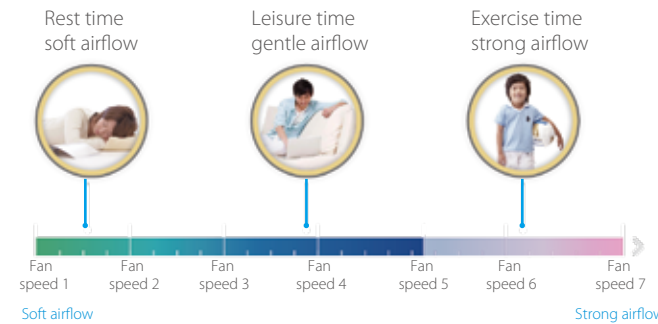
The filter indicator will be on when the running time reaches a certain time to remind user to clean the filter.



AIR FLOW

Multiple Fan Speeds

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



EASY INSTALLATION

Multiple Appearance Options

The Floor Standing Unit has three appearance options to meet different installation requirement, the F3B (concealed) unit is designed to be concealed in walls while the F4 (front air intake) and F5 (underside air intake) offer a choice of air intake options.



F3B (concealed)



F4 (front air intake)



F5 (underside air intake)

Specifications - DC Series

Concealed

Model			MI2-22F3DN1	MI2-28F3DN1
Power supply			1 phase, 220-240V, 50Hz	
Cooling ¹	Capacity	kW	2.2	2.8
		kBtu/h	7.5	9.6
	Power input	W	40	45
Heating ²	Capacity	kW	2.4	3.2
		kBtu/h	8.2	10.9
	Power input	W	40	45
Airflow rate			m³/h	530/504/478/456/439/418/400
Sound pressure level ³			dB(A)	36/35/34/33/31/30/29
Sound power level			dB(A)	36/35/34/33/31/30/29
Indoor unit	Net dimensions* (WxHxD)		840×545×212	
	Packed dimensions (WxHxD)		939×639×305	
	Net/Gross weight		21.4/25.6	
	Liquid/Gas pipe		Φ6.35/Φ12.7	
Pipe connections	Drain pipe		Φ16	

Model			MI2-36F3DN1	MI2-45F3DN1
Power supply			1 phase, 220-240V, 50Hz	
Cooling ¹	Capacity	kW	3.6	4.5
		kBtu/h	12.3	15.4
	Power input	W	55	60
Heating ²	Capacity	kW	4.0	5.0
		kBtu/h	13.6	17.1
	Power input	W	55	60
Airflow rate			m³/h	624/591/557/522/473/420/375
Sound pressure level ³			dB(A)	37/36/35/34/32/31/30
Sound power level			dB(A)	37/36/35/34/32/31/30
Indoor unit	Net dimensions* (WxHxD)		1040×545×212	
	Packed dimensions (WxHxD)		1139×639×305	
	Net/Gross weight		26.1/30.6	
	Liquid/Gas pipe		Φ6.35/Φ12.7	
Pipe connections	Drain pipe		Φ16	

Model			MI2-56F3DN1	MI2-71F3DN1	MI2-80F3DN1
Power supply			1 phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	5.6	7.1	8.0
		kBtu/h	19.1	24.2	27.3
	Power input	W	88	110	130
Heating ²	Capacity	kW	6.3	8.0	9.0
		kBtu/h	21.5	27.3	30.7
	Power input	W	88	110	130
Airflow rate			m³/h	1150/1094/1028/970/925/886/830	1380/1290/1205/1100/1033/955/870
Sound pressure level ³			dB(A)	41/39/37/35/33/32/31	44/42/40/39/37/35/33
Sound power level			dB(A)	41/39/37/35/33/32/31	44/42/40/39/37/35/33
Indoor unit	Net dimensions* (WxHxD)		1340×545×212		
	Packed dimensions (WxHxD)		1425×639×345		
	Net/Gross weight		31/39		
	Liquid/Gas pipe		Φ9.53/Φ15.9		
Pipe connections	Drain pipe		Φ16		

- 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 1m in front and 1m above the floor in a semi-anechoic chamber.
 4. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Specifications - DC Series

Exposed

Model			MI2-22F4DN1 MI2-22F5DN1	MI2-28F4DN1 MI2-28F5DN1
Power supply			1 phase, 220-240V, 50Hz	
Cooling ¹	Capacity	kW	2.2	2.8
		kBtu/h	7.5	9.6
	Power input	W	40	45
Heating ²	Capacity	kW	2.4	3.2
		kBtu/h	8.2	10.9
	Power input	W	40	45
Airflow rate			m³/h	530/504/478/456/439/418/400
Sound pressure level ³			dB(A)	36/35/34/33/31/30/29
Sound power level			dB(A)	36/35/34/33/31/30/29
Indoor unit	Net dimensions* (WxHxD)		1000×596×225	
			1000×677×220	
	Packed dimensions (WxHxD)		1089×683×312	
			1182×683×312	
	Net/Gross weight		28.2/32.8	
			28.2/35.8	
Pipe connections	Liquid/Gas pipe		Φ6.35/Φ12.7	
	Drain pipe		Φ16	

Model			MI2-36F4DN1 MI2-36F5DN1	MI2-45F4DN1 MI2-45F5DN1
Power supply			1 phase, 220-240V, 50Hz	
Cooling ¹	Capacity	kW	3.6	4.5
		kBtu/h	12.3	15.4
	Power input	W	55	60
Heating ²	Capacity	kW	4.0	5.0
		kBtu/h	13.6	17.1
	Power input	W	55	60
Airflow rate			m³/h	624/591/557/522/473/420/375
Sound pressure level ³			dB(A)	37/36/35/34/32/31/30
Sound power level			dB(A)	37/36/35/34/32/31/30
Indoor unit	Net dimensions* (WxHxD)		1200×596×225	
			1200×677×220	
	Packed dimensions (WxHxD)		1289×683×312	
			1382×683×312	
	Net/Gross weight		33.1/38.2	
			33.5/41.8	
Pipe connections	Liquid/Gas pipe		Φ6.35/Φ12.7	
	Drain pipe		Φ16	

Model			MI2-56F4DN1 MI2-56F5DN1	MI2-71F4DN1 MI2-71F5DN1	MI2-80F4DN1 MI2-80F5DN1
Power supply			1 phase, 220-240V, 50Hz		
Cooling ¹	Capacity	kW	5.6	7.1	8.0
		kBtu/h	19.1	24.2	27.3
	Power input	W	88	110	130
Heating ²	Capacity	kW	6.3	8.0	9.0
		kBtu/h	21.5	27.3	30.7
	Power input	W	88	110	130
Airflow rate			m³/h	1150/1094/1028/970/925/886/830	1380/1290/1205/1100/1033/955/870
Sound pressure level ³			dB(A)	41/39/37/35/33/32/31	44/42/40/39/37/35/33
Sound power level			dB(A)	41/39/37/35/33/32/31	44/42/40/39/37/35/33
Indoor unit	Net dimensions* (WxHxD)		1500×596×225		
			1500×677×220		
	Packed dimensions (WxHxD)		1589×683×312		
			1682×683×312		
	Net/Gross weight		38.4/44.6		
			39/47.7		
Pipe connections	Liquid/Gas pipe		Φ9.53/Φ15.9		
	Drain pipe		Φ16		

- 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 1m in front and 1m above the floor in a semi-anechoic chamber.
 4. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Console



Optimal heating comfort thanks to dual airflow, can be floor standing or installed against a wall

Key Features

Console		DC Series
Comfort	Optimal heating 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	Two air outlets and four air inlets	●
	Multiple fan speeds	7+auto
	Multiple steps vertical swing	5+auto
Easy installation	Pure white stylish panel with compact size	●
	Exposed installation, easy installation and maintenance	●

Note:
●: equipped as standard

COMFORT

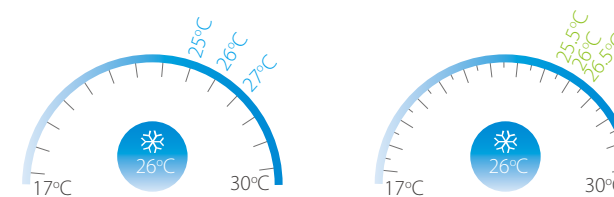
Optimal Heating Comfort

Thanks to the two air outlets, hot air can be supplied from below, just like floor heating, which is more comfortable when heated from the foot.



0.5°C/1°C Setting Temperature Adjustment

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



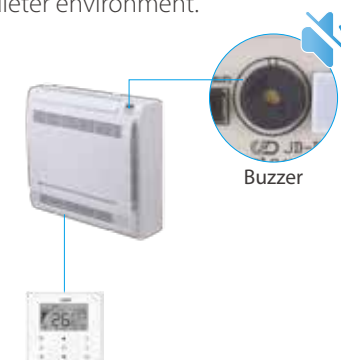
Digital Display On/Off

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



Buzzer Sound On/Off

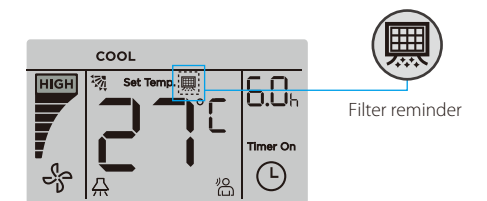
Indoor unit buzzer sound can be set off to not disturb the user, creating a quieter environment.



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.



AIR FLOW

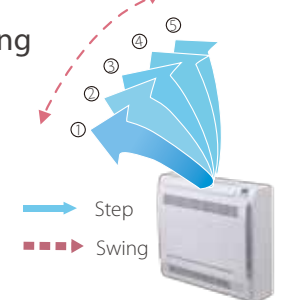
Two Air Outlets And Four Air Inlets

The Console unit's combination of four air inlets and two air outlets ensure that cooling and heating is distributed in all directions.



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.



EASY INSTALLATION

Pure White Stylish Panel With Compact Size

Pure white stylish panel with slim design, perfect fusion in all kinds of decoration. Super compact design can be install in existing building. Its low height enables the unit to fit perfectly beneath a window. Good choose for office.



Specifications - DC Series

Model			MI2-22ZDN1	MI2-28ZDN1	MI2-36ZDN1	MI2-45ZDN1
Power supply			1 phase, 220-240V, 50Hz			
Cooling ¹	Capacity	kW	2.2	2.8	3.6	4.5
		kBtu/h	7.5	9.6	12.3	15.4
	Power input	W	20	25	25	35
Heating ²	Capacity	kW	2.6	3.2	4.0	5.0
		kBtu/h	8.9	10.9	13.4	17.1
	Power input	W	20	25	25	35
Airflow rate		m³/h	430/401/374/345/302/268/229	510/482/456/430/355/286/229		660/614/561/512/478/436/400
Sound pressure level ³		dB(A)	38/36/34/32/28/27/26	39/37/35/33/31/29/27		42/41/40/39/37/36/36
Sound power level		dB(A)	54/52/50/48/44/43/42	55/53/51/49/47/45/43		58/57/56/55/53/52/52
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	700×600×210			
	Packed dimensions (WxHxD)	mm	810×710×305			
	Net/Gross weight	kg	14/19	15/20		
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			
	Drain pipe	mm	OD Φ16			

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 1m in front and 1m above the floor 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



Integrated with ventilation and air processing, combining fresh air treatment and air conditioning via single system.

Key Features

Fresh Air Processing Unit		DC Series with large airflow	DC Series with small airflow
Comfort	100% fresh air processing unit	●	●
	Discharge Air temperature control	●	●
	Quiet operation	●	●
	0.5°C/1°C setting temperature adjustment	●	●
	Digital display on/off	●	●
	Buzzer sound on/off	●	●
Health	Air filter	● ○ (G3-class)	● ○ (G3-class)
	Dirty filters indicator signal	●	●
Air flow	Adjustable ESP	20-steps	20-steps
	Multiple fan speeds	7+auto	7+auto
Easy installation	Wide operation range	-10~43°C	-10~50°C
	Flexible duct design	●	●
	High-lift water pump box	○	○

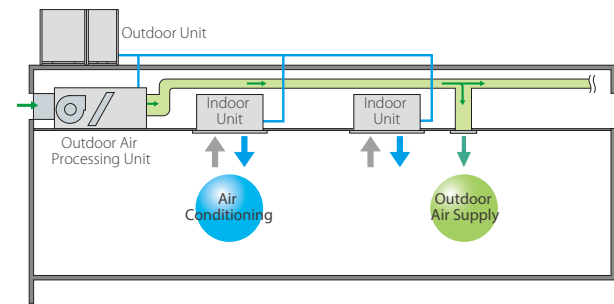
Note:
●: equipped as standard; ○: customization option;

COMFORT

100% Fresh Air Processing Unit

Both fresh air filtration and heating/cooling can be achieved in a single system.

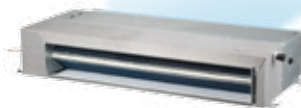
Indoor units and the Fresh Air Processing Unit can be connected to the same refrigerant system, increasing design flexibility and greatly reducing total system costs.



Discharge Air Temperature Control

Different from the normal indoor unit adopts return air temperature control, the fresh air processing unit adopts discharge air temperature control, thereby reducing the air conditioning load.

Target return air temperature control



Target discharge air temperature control

Digital Display On/Off

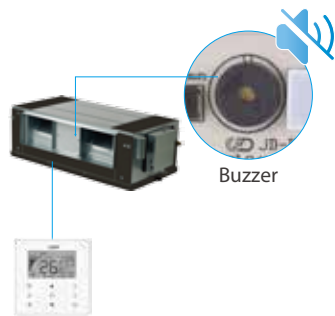
Indoor unit displays can be shut off at night, creating a better environment for rest.



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

G3-class filter is optional for Fresh Air Processing Unit 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.

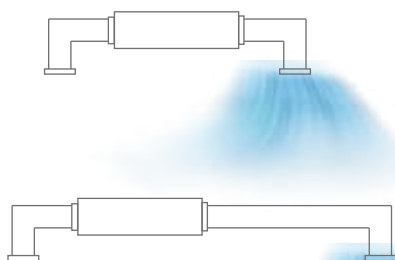


The optional filter comply with EN779:2012

AIR FLOW

Static Pressure 20 Steps Control

Depending on the installation environment, Medium 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

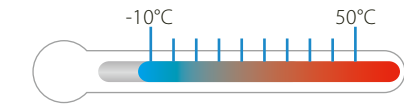


20 steps static pressure control

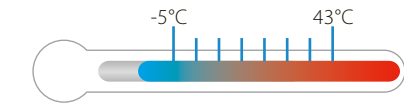
EASY INSTALLATION

Wide Operation Range

The Fresh Air Processing Unit can be installed practically anywhere. The unit operates at outdoor ambient up to 50°C in cooling mode and down to -10°C in heating mode.



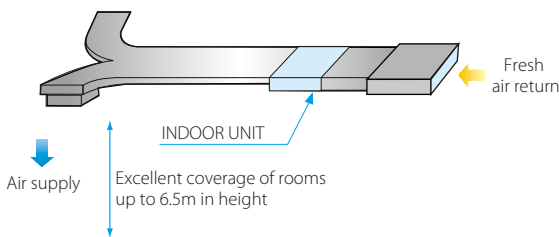
Small airflow unit special for tropical conditions



Large airflow unit special for standard conditions

Flexible Duct Design

Fresh Air Processing Unit supplies a wide static pressure from 30Pa to 400Pa which can support short to long duct with high ceiling air supply.



Specifications - DC Series (with large airflow)

Model			MI2-125FADN1	MI2-140FADN1
Power supply			1 phase, 220-240V, 50Hz	
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
Airflow rate		m ³ /h	2000/1917/1833/1750/1667/1583/1500	
External static pressure		Pa	150(100~250)	
Sound pressure level ³		dB(A)	48/47/46/45/44/43/42	
Sound power level		dB(A)	66/65/64/63/62/61/60	
Indoor unit	Net dimensions ⁴ (WxHxD)	mm	1322x423x691	
	Packed dimensions (WxHxD)	mm	1436x450x768	
	Net/Gross weight	kg	68/76	
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	

Notes:

1. Outdoor temperature 33°C DB, 28°C WB; equivalent refrigerant piping length 7.5m with zero level difference.

2. Outdoor temperature 0°C DB, -2.9°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.

The Fresh Air Processing Unit can be used either independently or in conjunction with other types of indoor unit. If used independently, the total capacity of the Fresh Air Processing Units must be between 50% and 100% of that of the outdoor units. If used in conjunction with other types of indoor unit, the total capacity of the indoor units and Fresh Air Processing Units must be between 50% and 100% of that of the outdoor units and the total capacity of the Fresh Air Processing Units must not exceed 30% of that of the outdoor units.

Heat Recovery Ventilator (HRV)

Wide Capacity Range

The HRV has AC Series and DC Series options. The airflow is from 200m³/h to 2000m³/h which can meet the requirements of most scenarios.

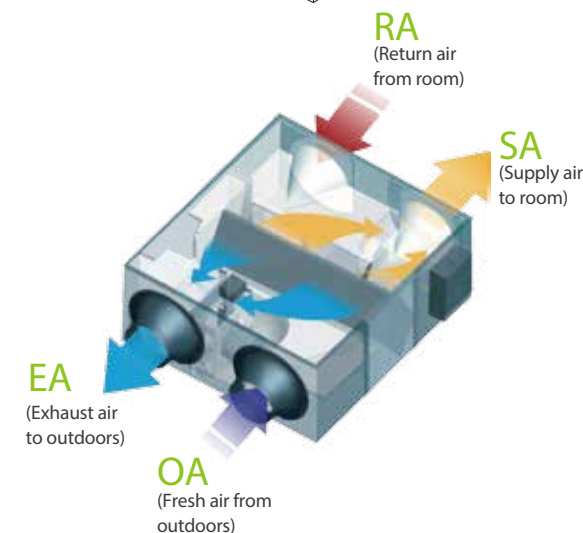
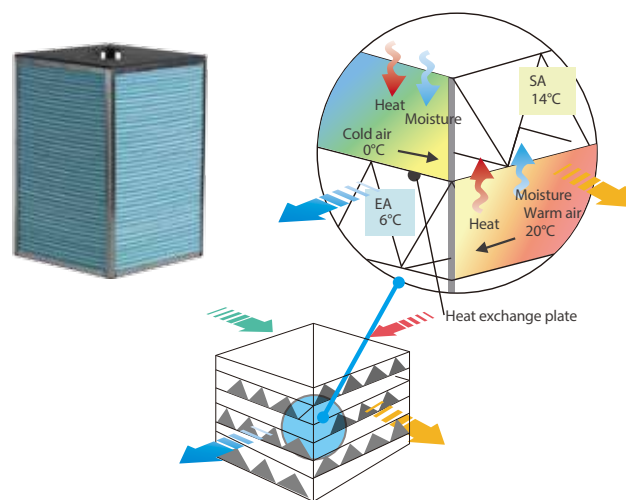


200/300/400/500/800/1000m³/h

1500/2000m³/h

Energy Saving, Heat Recovery for Both Heat and Humidity

The heat recovery ventilator (HRV) can greatly reduce energy loss and room temperature fluctuations caused by the ventilation process. The MDV HRV's strong performance is a result of the advanced technology incorporated into its design. The heat exchanger core is made of specially treated paper which gives enhanced temperature and humidity control. It prevents energy being wasted by recovering waste heat from the outgoing air, thus offering much greater levels of efficiency, while improving comfort levels too.

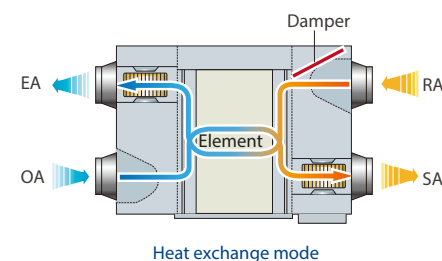


Multiple Operation Modes

Multiple operation modes: Auto, Bypass, Heat recovery, Free cooling mode (available for DC Series Only), Air supply mode and Exhaust mode (available for AC Series Only).

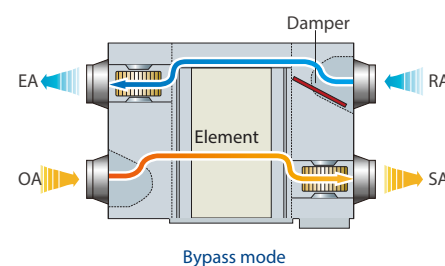
Heat exchange mode

The flows of incoming and outgoing air pass close to each other, allowing heat transfer between the two channels. During summer, incoming air is cooled by the indoor air being exhausted and in winter, incoming air is warmed.



Bypass mode

In mild climates or seasons, where temperature and humidity differences between indoors and outdoors are small, the HRV can work as a conventional ventilation fan. In standard bypass mode the supply and exhaust fans run at the same speed.



Air supply mode

Air supply mode is where the supply fan is set to run faster than the exhaust fan, which is useful in mild climate installations with high fresh air ventilation requirements.

Exhaust mode

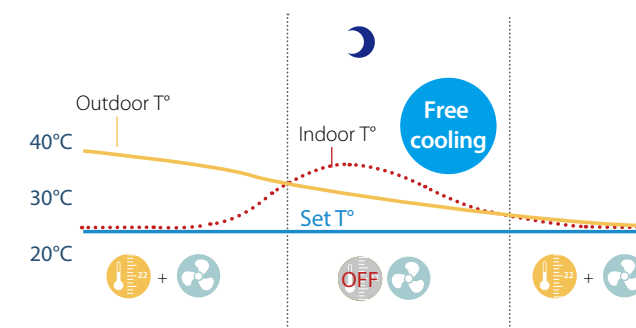
Exhaust mode is where the exhaust fan is set to run faster than the supply fan, which is useful in mild climate installations with large amounts of exhaust air to be expelled.

Auto mode

The controller chooses heat exchange mode or bypass mode according to the temperature difference between outdoors and indoors. Both fans are set to run at low speed.

Free Cooling Mode

Free cooling mode is only available for DC Series HRV. Free cooling operation is an energy saving function operating when outdoor ambient temperature is below indoor ambient temperature, it uses low temperature fresh air to cool down indoor temperature, reducing the running costs.



High Efficiency Filter

Standard Built-in G4-class dust filter, optional F7-class filter for air supply side and M5-class filter for exhaust air side in line with EU legislations can be customized.



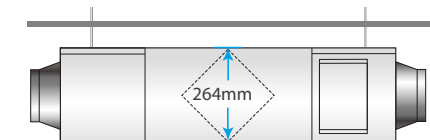
F7-class filter



M5-class filter

Easy Installation

Slim and compact design of units, making the installation more convenient.



Wide Range of Controllers

The HRV has its special wired controller KJR-27B for standard functions control and compatible with group controller WDC-120G/WK for new functions (CO2 sensor function, differential pressure sensor function) control. It also can be centralized control with VRF system through centralized controller and network control with VRF system through MDV BMS gateways.



Wired controller KJR-27B



Wired controller WDC-120G/WK(A)



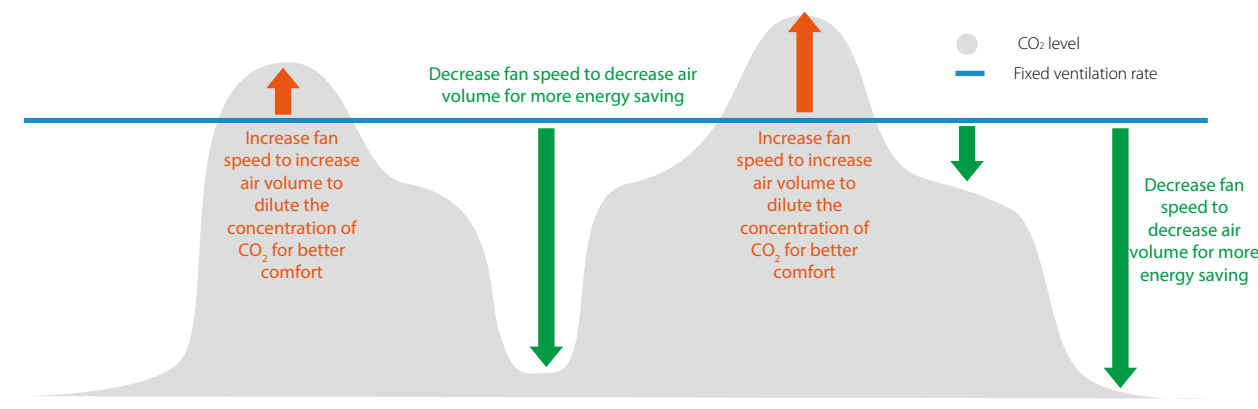
BMS gateway



Centralized controller CCM-270B/WS(A)

CO₂ Sensor Option

Enough fresh air is needed to create an enjoyable environment, but ventilating constantly is leading to energy waste. Therefore, an optional CO₂ sensor can be installed which switches off the ventilation system when there is enough fresh air in the room, thus saving energy.



Specifications - DC Series

Model		HRV-D200(B)	HRV-D300(B)	HRV-D400(B)	HRV-D500(B)
Power supply		1-phase, 220-240V~50Hz			
Input power (H/M/L)(F7+M5)	W	80/40/25	100/55/35	110/70/40	150/95/50
Nominal Temperature Efficiency (standard G4) (H/M/L)	%	79.5/81.1/83.5	75.5/78.8/82.5	77.7/79.0/81.3	80.6/82.2/85.5
Nominal Enthalpy Efficiency (standard G4) (H/M/L)	%	75.0/77.5/79.6	72.1/75.0/79.3	73.5/75.3/78.0	74.0/76.6/80.5
Nominal Temperature Efficiency (F7+M5) (H/M/L)	%	81.8/85.4/87.5	80.4/81.8/83.5	79.2/81.1/83.3	77.2/79.4/82.5
Nominal Enthalpy Efficiency (F7+M5) (H/M/L)	%	81.2/83.1/85.0	79.4/81.2/84.0	79.6/81.8/84.2	72.3/75.6/78.6
Fresh air external static pressure (H speed +F7+M5)	Pa	75	70	70	65
Discharge air external static pressure (H speed +F7+M5)	Pa	100	110	110	110
Nominal air flow	m ³ /h	200	300	400	500
Sound pressure level (H/M/L)	dB(A)	33/29.5/25.5	36.5/33.5/30	36.5/32/28	36/30.5/24.5
Sound power level (H)	dB	45	48	48	50
Net dimensions (WxDxH)	mm	1195×801×272	1195×914×272	1276×1204×272	1311×1106×390
Packed dimensions (WxDxH)	mm	1275×880×420	1275×994×420	1360×1284×420	1390×1244×540
Net/Gross weight	kg	53.6/63.5	59/75.5	71.5/91.5	74.4/98
Duct diameter	mm	Φ144	Φ144	Φ198	Φ244
Operating temperature range	°C	-7 to 43 DB, RH 80% or lower			

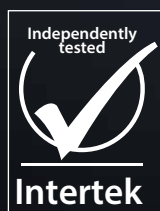
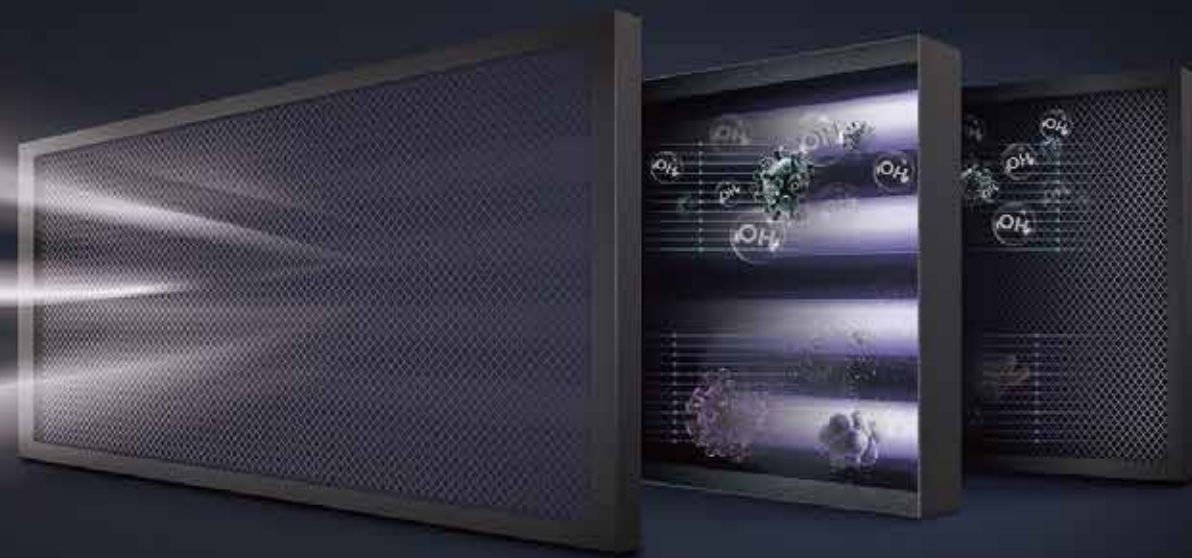
Note:
1. For the units model of HRV-D300(B)~HRV-D1000(B), there are 3-speed adjustable air-volume (Hi, Med, Low).
2. The parameters in the above table are measured at high speed.

Model		HRV-D800(B)	HRV-D1000(B)	HRV-D1500(B)	HRV-D2000(B)
Power supply		1-phase, 220-240V~50Hz			
Input power (H/M/L)(F7+M5)	W	320/170/80	420/230/100	680/320/200	950/500/230
Nominal Temperature Efficiency (standard G4) (H/M/L)	%	78.7/82.1/86.8	82.8/84.0/87.4	75.5/78.6/80.2	77.2/79.5/83.4
Nominal Enthalpy Efficiency (standard G4) (H/M/L)	%	72.3/75.4/79.0	76.0/76.0/80.1	69.4/71.2/74.8	74.7/77.0/80.6
Nominal Temperature Efficiency (F7+M5) (H/M/L)	%	74.9/77.1/80.8	75.4/78.0/81.4	83.8/84.6/86.2	78.8/80.5/83.4
Nominal Enthalpy Efficiency (F7+M5) (H/M/L)	%	71.1/74.4/78.0	67.3/71.1/75.0	74.6/76.2/78.8	71.1/75.0/79.6
Fresh air external static pressure (H speed +F7+M5)	Pa	100	110	150	160
Discharge air external static pressure (H speed +F7+M5)	Pa	155	145	180	180
Nominal air flow	m ³ /h	800	1000	1500	2000
Sound pressure level (H/M/L)	dB(A)	42/39/34	44/39/33.5	51.5/46.5/41.5	53/48.5/42.5
Sound power level (H)	dB	55	54	69	70
Net dimensions (WxDxH)	mm	1311×1286×390	1311×1526×390	1740×1375×615	1811×1575×685
Packed dimensions (WxDxH)	mm	1390×1424×540	1390×1670×540	1830×1520×770	1900×1720×845
Net/Gross weight	kg	80/104	90/112	181.5/213	208.5/245
Duct diameter	mm	Φ244	Φ244	346×326	346×326
Operating temperature range	°C	-7 to 43 DB, RH 80% or lower			

Note:
1. For the units model of HRV-D300(B)~HRV-D1000(B), there are 3-speed adjustable air-volume (Hi, Med, Low).
2. The parameters in the above table are measured at high speed.

PURO - AIR KIT

SAFE INDOOR AIR, FROM THE INVISIBLE CARE
PURIFICATION SPEED INDUSTRY LEADER



First Global Tick-mark Certification Of Purification Ac Products

Premium **Osram** Hns **Uv** Lamp Made In **Europe**

99.9% Killing Rate Of Staphylococcus Albus Within **10 Minutes**

99.9% Killing Rate Of H1n1 Within **30 Minutes**

98.2% Killing Rate Of Natural Airborne Bacteria Within **30 Minutes**

Indoor air pollution is affecting our...

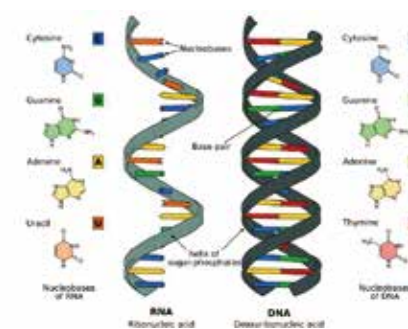
We spend 80% of our time indoors. On average, a person consumes about 8000 liters of air in a day. According to the EPA, indoor air pollution could be five times greater than outdoor air. Over 99% of particles in the air are smaller than 1 micron, and they cannot sink because of their lightweight. When a person sneezes, around 100,000 contagious germs may be sent into the air.

Puro-Air kit can effectively remove bacteria, viruses and odors from indoor air to provide a healthy and safe indoor environment. Its innovative design also prevents UV damage to the eyes, skin, and respiratory tract.



UVGI is increasingly widely used in the sterilization of HVAC equipment. W.J.Kowalski and others have obtained the effect of UV sterilization on the concentration of indoor pollutants through experiments. It can be seen that the virus, bacteria and spores exposed to UV irradiation with an intensity of 25 mW / cm² is significantly reduced. The results show that the microorganisms carried in the air can be killed by applying a certain intensity and time of UV irradiation (200-270nm) under appropriate conditions[1].

[1].HVAC Design Manual for Hospitals and Clinics, ASHRAE



Andrea Bianco, Mara Biasin and others have confirmed through experiments that UV-C irradiation has the potential virucidal effects on SARS-CoV-2. The potential virucidal effects of UV-C irradiation on SARS-CoV-2 were evaluated for different illumination doses and virus concentrations. These results could explain the epidemiological trends of COVID-19 and are important for the development of novel sterilizing methods to contain SARS-CoV-2 infection[2].

[2]Refer to UV-C irradiation is highly effective in inactivating and inhibiting SARS-CoV-2 replication, Andrea Bianco, Mara Biasin

Features:

- 2 models, power range from 60W to 120W
- 2 UV lamps and 4 UV lamps are optional
- Application air flow rate of 2 UV lamps model can be up to 2600 m³/h
- Application air flow rate of 4 UV lamps model can be up to 4300 m³/h.
- UVGI high efficient
- Innovative structural design
- Higher safty,Ozone-free and UV leakage-free
- Flexibility Control
- Higher reliability
- Higher killing rate for viruses and bacteria,99.9% killing rate of Staphylococcus albus in 10 minutes,99.9% killing rate of H1N1and 98% killing rate of natural bacteria in 30 minutes
- Be widely used in many scenes



Precise
253.7nm
UV wave length

Premium
Ozone Free

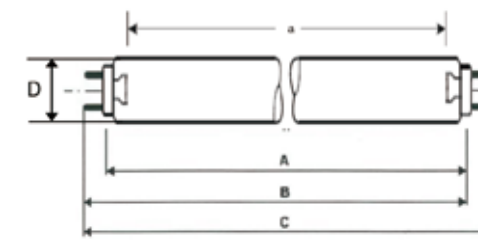
Powerful
360°
Coverage Area

Durable
9000hr
80% output

Reliable
Solid
Amalgam

Model	Description	Key component	Box size	Air flow(m ³ /h)
HFB1-P-U02	UV Health function box	2x(UV lamp,230V,30W)	BOXI	2600
HFB1-P-U04	UV Health function box	4x(UV lamp,230V,30W)	BOXI	4300

	BOX Dimension WxHxD(mm)	Air-flow(m ³ /h)	Air velocity(m/s)	Pressure loss(Pa)
HFB1 Puro-Air	1120x418x420	4000	2.44	65
		3500	2.13	50
		3000	1.86	40
		2500	1.52	30
		2000	1.19	20
		1500	0.94	12



Geometric Data

Face to Face	A max 894.3 mm
Face to end of opposite pin	B min 899.3 mm
Face to end of opposite pin	B max 901.7 mm
Overall length	C max 908.8 mm
Radiation length	a 824 ± 2 mm
Tube diameter	D max 25.5 ± 2 mm
Base G13	

Electrical Data

Lamp Power	30 W
Lamp Voltage	96 V
Input Voltage	230 V

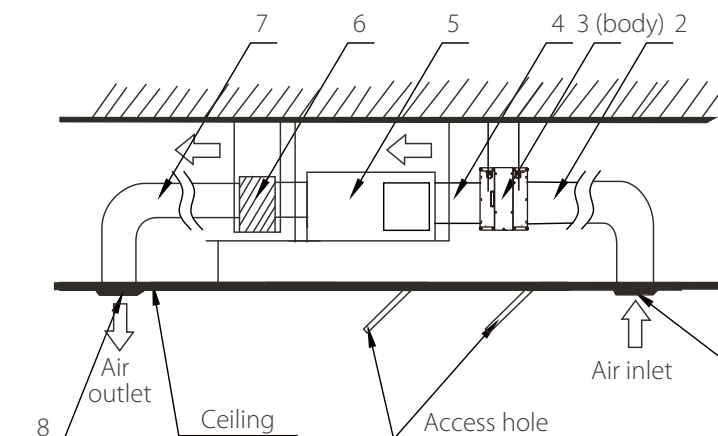
Note: The OSRAM HNS G13 lamp can be purchased from the market for replacement.

Spectral Data

Radiation flux (254nm)	12.0 W
Initial UV-C irradiance	> 0.31 W/m ² @ 2 meter
Lifetime	9000 hrs
UV-C irradiance @ 9000hrs	> 0.24 W/m ² @ 2 meter

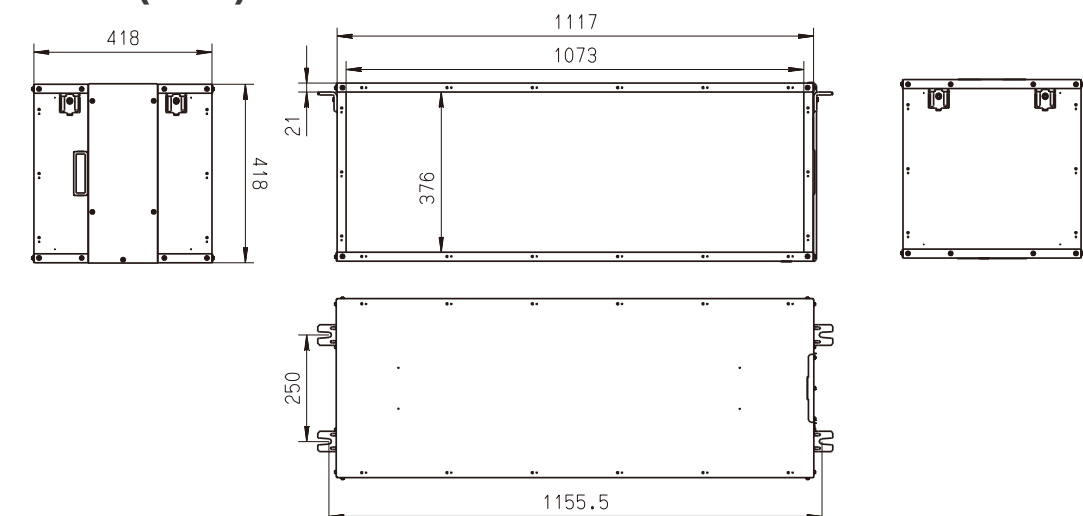
Air Duct Installation

- The air inlet flange and air outlet flange are connected to air ducts, respectively.
- Seal the connection parts of the flange and air duct with aluminum foil tape.
- Use screws (prepared on site) to connect the air duct to the unit.



Legend	
1	Air inlet mesh(prepared on site)
2	Air outlet mesh(prepared on site)
3	PURO-AIR KIT
4	Air duct(prepared on site)
5	Master unit of the air conditioner
6	Air plenum(prepared on site)
7	Air outlet duct(prepared on site)
8	Air outlet(prepared on site)

Dimensions (mm)



CONTROL SOLUTIONS

Remote Controllers

Wired Controllers

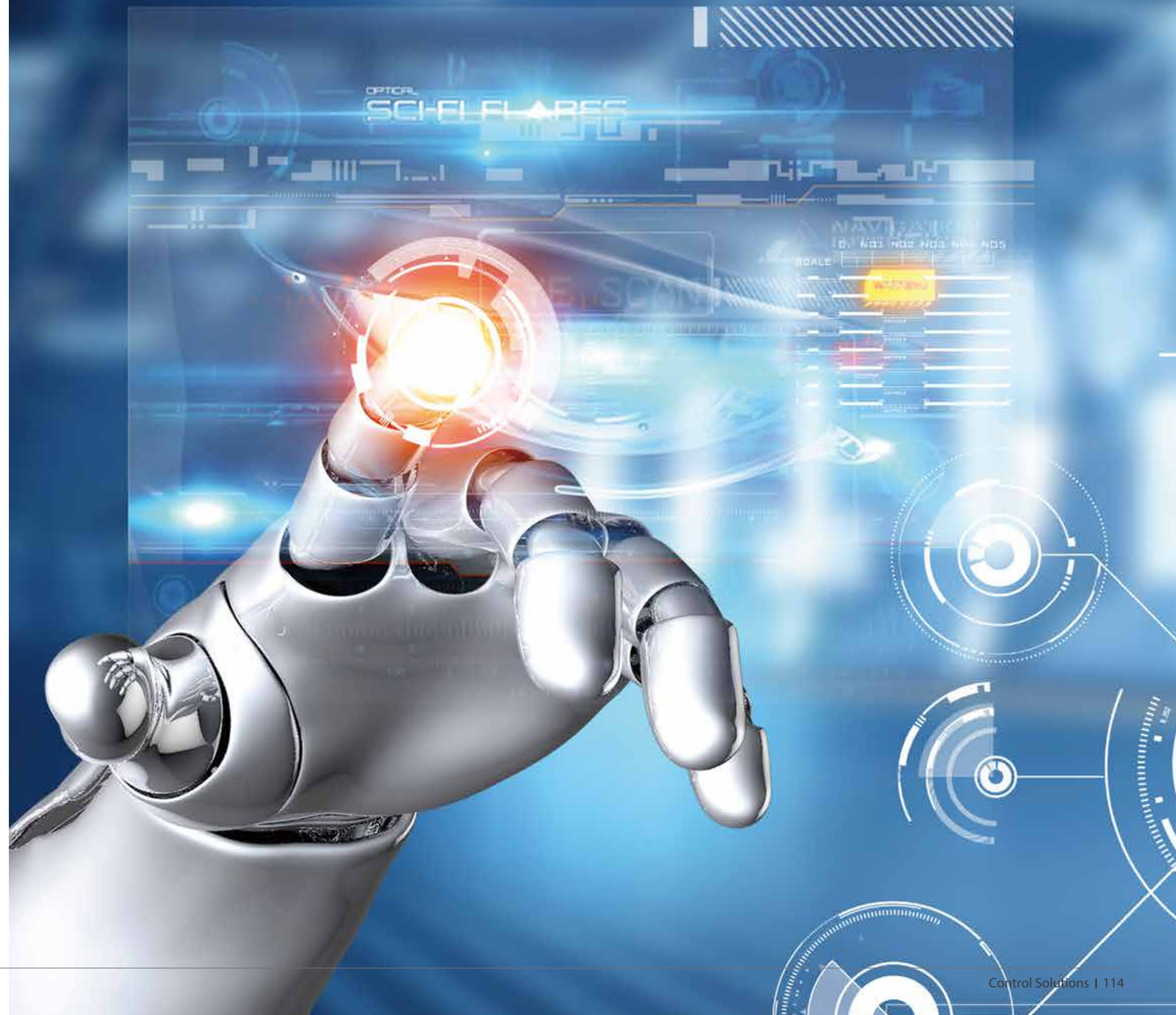
Central Controllers

Data Converter




















Network Control System

BMS Gateways

Accessories























CONTROLLER LINEUP for V6/V6R/V6i(7-12HP)/ Mini C

Wireless Remote Controllers	Wired Remote Controllers	Central Controllers Data converter		Network Control System	BMS Gateways	Accessories
 <p>RM05B(A) RM12F</p>	 <p>WDC-86E/KD WDC-120G/WK(A)</p>	 <p>CCM-180A/BWS(A)</p>		 <p>IMMP-BAC(A)</p>	 <p>IMMP-BAC(A)</p>	<p>Hotel Key Card Interface Module</p>  <p>MA-HKCW MA-HKCS</p>
	 <p>WDC-120G/WK(HTHM)</p>	 <p>CCM-270B/WS(A)</p>		<p>+</p>  <p>IMMP-S(A)</p>	 <p>GW-LON(A)</p>	<p>Infrared Sensor Controller</p>  <p>MA-IS</p>
		 <p>CCM-15</p>		 <p>CCM-270B/WS(A)</p>	 <p>GW-MOD(A)</p>	<p>Diagnosis software</p>  <p>HBT-DIAG-B(A)</p>
				<p>!</p>  <p>IMMP-S(A)</p>	 <p>GW-KNX, GW-KNX(A)*</p>	<p>XYE Extension Kit</p>  <p>MA-EK</p> <p>IDU Online Kit</p>  <p>HBT-PIDU</p>

Note:

1. GW-KNX(A) is only used for High Temperature Hydro Module in V6R systems.
2. The diagnosis software is only compatible with V6/V6i outdoor unit.

CONTROLLER LINEUP for V4+I(except 10/12HP) V4+W/ Mini VRF- Standard Series

Wireless Remote Controllers	Wired Remote Controllers	Central Controllers		Network Control System Data Converter	BMS Gateways	Accessories
 RM05B(A)	 WDC-86E/KD	 CCM-180A/BWS(A)		M-interface Gateway 	 IMMP-BAC(A)	Hotel Key Card Interface Module  MA-HKCW MA-HKCS
 RM12F	 WDC-120G/WK(A)	 CCM-270B/WS(A)		+ IMM Software 	 GW-LON(A)	Infrared Sensor Controller  MA-IS
		 MD-CCM09		 CCM-15	Modbus Gateway  CCM-18A/N CCM-18A/N-U	Network Electricity Distribution Module (Special for Mini VRF)  MD-NIM10
		 CCM30			 GW-KNX	XYE Extension Kit  MA-EK Indoor Unit Online Kit  HBT-PIDU

Wired Controllers



Features

Model	 WDC-86E/KD	 WDC-120G/WK (A)
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	●	●
Silent mode	●	●
Remote signal receiver	●	●
Clean filter reminder	●	●
Extension function	×	●
Daylight saving time	×	●
Clock display	×	●
Dot matrix display	×	●
Error check function	●	●
System parameter querying	●	●
After Hours/Off Timer function	●	●
Language	English	English, French, Spanish, Polish
HRV control	×	●
Puro-Air Kit control	×	●
System setting control	●	●
Dimensions (WxHxD) (mm)	86x86x18	120x120x20
Power supply	18V DC	18V DC
Indoor unit series	2 nd generation AC/DC IDU	

Note:
 ●: equipped as standard; ×: without this function
 when the 2nd generation AC indoor units connect to group controller WDC-120G/WK(A), the indoor units need to customize D1 D2 terminals.

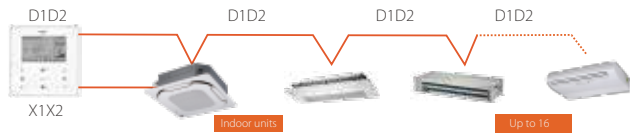
Features

Model	 WDC-120G/WK(HTHM)
On / Off	●
Mode selection	●
Water Outlet Temperature Control	●
Silent Mode	●
Screen lock	●
Room Temperature Control	●
Multiple Set Points	●
Address setting	●
Disinfection Mode	●
Holiday Home Mode	●
Holiday Away Mode	●
°F/°C display	●
Keyboard lock	●
Background light	●
Daily timer	●
Weekly schedule timer	●
Auto restart	●
Child Lock	●
Bi-directional communication	●
Service Call	●
DHW Temperature Control	●
Parameter Checking	●
Silent mode	●
Remote signal receiver	●
Maximum Power Limitation	●
Operating Parameters Checking	●
Heating Temperature Control	●
Clock display	●
Dot matrix display	●
Error check function	●
Language	English, French, Spanish, Polish
Dimensions (WxHxD) (mm)	120x120x20
Power supply	18V DC
Indoor unit series	High Temperature Hydro Module

Note:
●: equipped as standard

Group Control

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



Note: when the 2nd generation AC indoor units connect to group controller WDC-120G/WK, the indoor units need to customize D1 D2 terminals. Group control is not available for 2nd generation AC Wall Mounted Series.

Main or Secondary Controller Setting

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



One indoor unit



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.



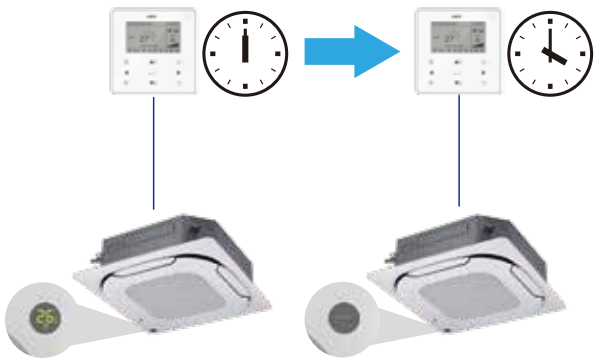
Buzzer Sound On/Off

The buzzer sound of the indoor unit can be turned off to create a quieter environment.



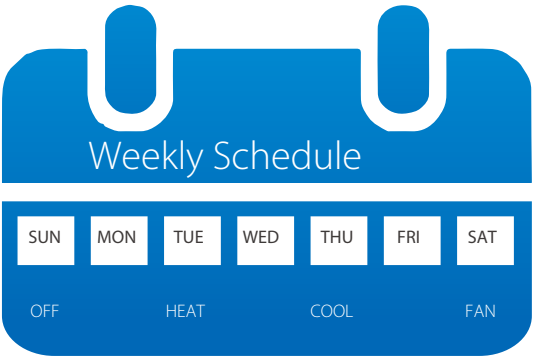
Off Timer Function

We can use the wired controller to set an automatic off timer or after hours function for the indoor unit.



Weekly Schedule Timer

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



Bi-directional Communication

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



Note : This function is only available for V6/V6i/V6R/V4+(10-12HP) outdoor unit connected to 2nd generation DC indoor unit.

Central Controllers





Features

Function		
	CCM-180A/BWS	CCM-270B/WS
Max. number of indoor units	64	384
Max. number of refrigerant systems	8	48
Touch screen	● (6.2-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 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	270×183×27
Power supply	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.

Features

Function		
	CCM30	CCM09
Max. number of indoor units	64	64
Max. number of refrigerant systems	8	8
Touch screen	×	×
On/Off	●	●
Mode selection	●	●
Temperature setting	● (1°C steps)	
7-speed fan control	3-speed fan control	
Auto swing	●	●
5-step swing louver*	×	×
Room temperature display	●	●
Holiday setting	×	×
°C/°F display	●	●
Schedule management	●	Weekly timer
Clock display	×	×
2 permission levels	×	×
Extension function	×	×
Indoor unit type/model recognition	×	×
Indoor unit with capacity larger than 16kW recognition	Identify as two or four units (depend on units model)	
HRV Control	●	●
Visual schematic	×	×
Energy management	Mode/Remote controller limit	
Group management	×	×
Error check function	●	●
System parameter querying	●	●
USB output	×	×
Report display	×	×
Operation log	×	×
LAN access	×	×
Language supported	English	
Dimensions (W×H×D) (mm)	179×119×74	179×119×74
Power supply	198-242V AC (50/60Hz)	
Outdoor unit series or indoor unit series	V4+I(except for 10-12HP)/ V4+W/Mini VRF-Standard Series ODU	V4+I(except 10/12HP)/V4+W/ Mini VRF- Standard Series ODU

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

Touch Screen

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



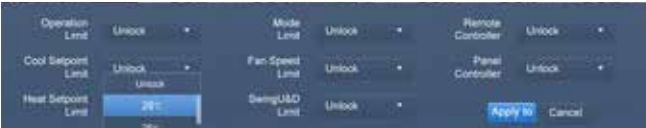
Electricity Charge Distribution

The controllers use the patented MDV 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.



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.



Unit Model Recognition

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

Icon	Model	Icon	Model
	Low static pressure and middle static pressure (L-DUCT/NA-DUCT)		Vertical concealed installation/vertical surface mounting (VS)
	High static pressure (H-DUCT)		Four-way Cassette
	Furrier (FAPU)		Compact Four-way Cassette (COMINACT)
	Wall mounting (WALL)		Ceiling floor type (C&F)
	Old IDU (1st Gen. IDU)		Two-way Cassette
	One-way Cassette		CONSOLE
	Group control device icon		New IDU (New generation ODU)

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.



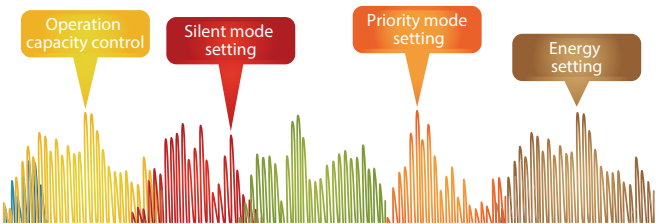
Group Management

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



Outdoor Unit Configuration

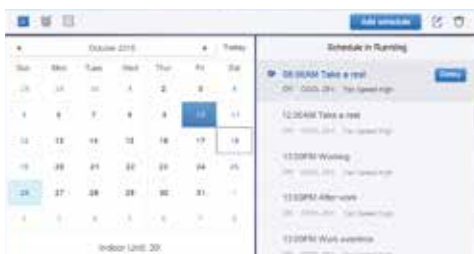
Outdoor unit configuration and settings can be monitored and controlled without having to go outdoors.



Note: This function is only available for V6/V6i outdoor unit.

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.



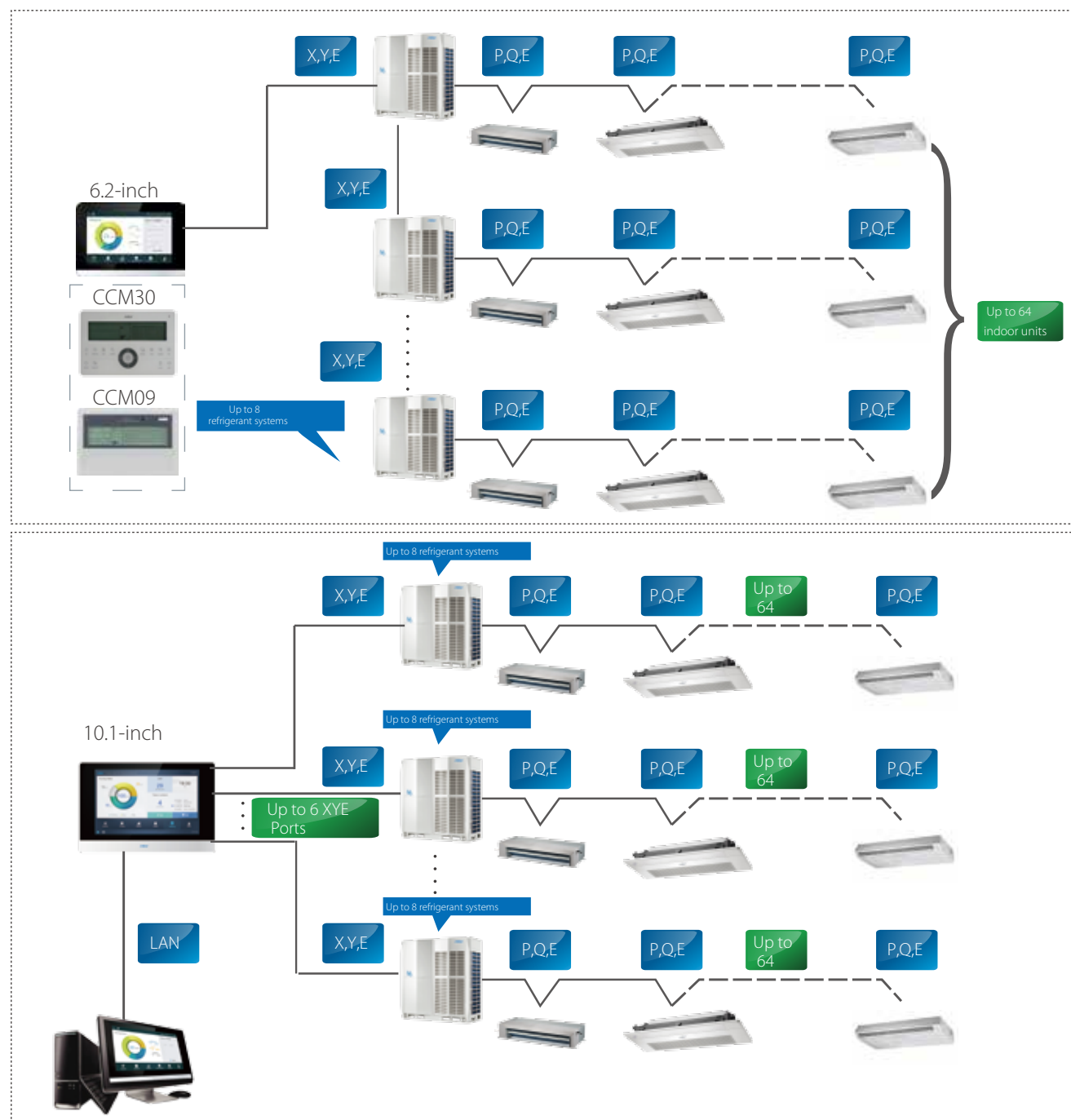
LAN Access

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

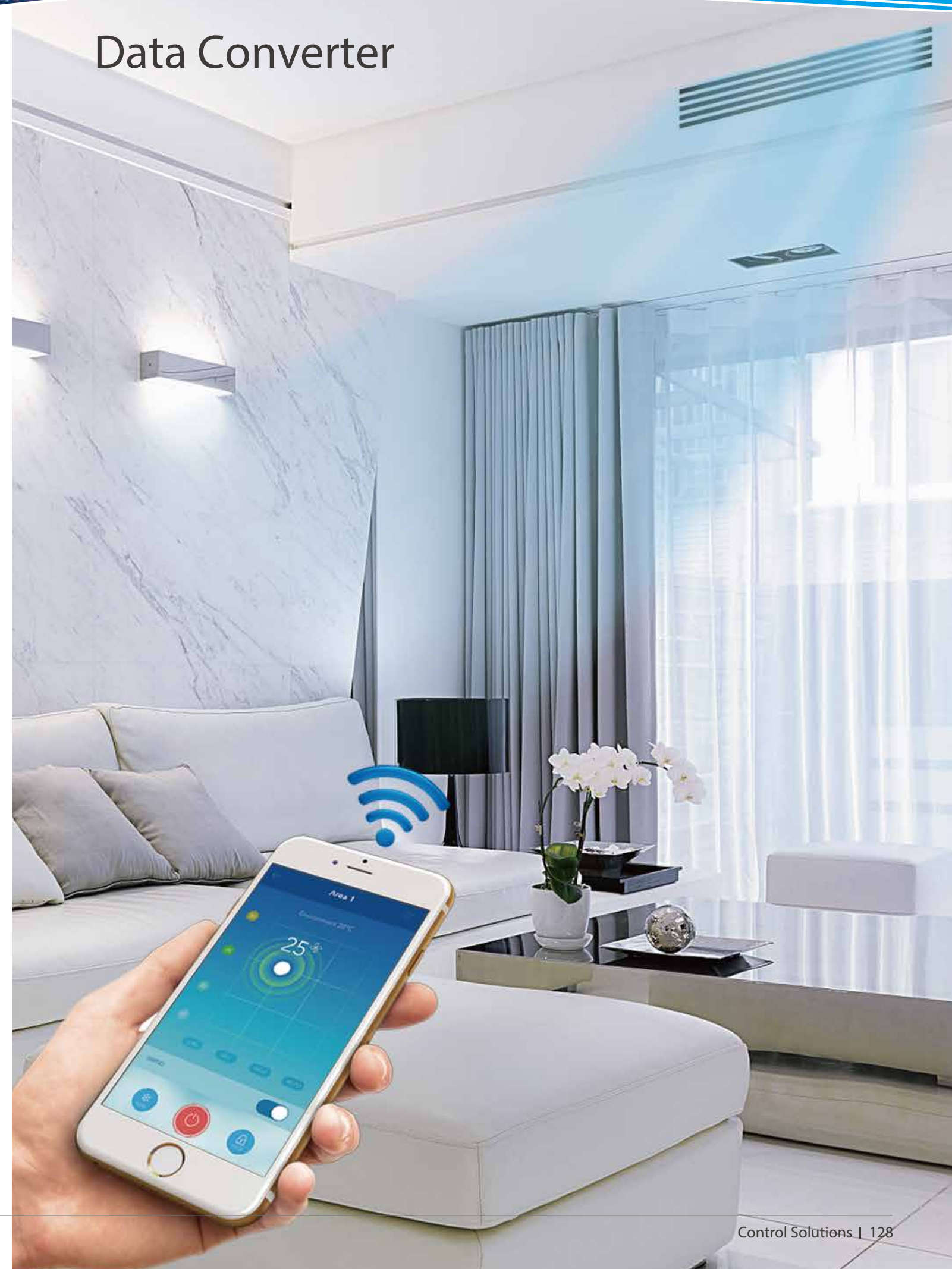


Wiring Flexibility




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



Data Converter



Features

Hardware model	 CCM-15	
Application scenarios	 Mobile Phone Application	 Cloud Server Website
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°C steps)	● (1°C steps)
7-speed fan control	×	×
Auto swing	●	●
5-step swing louver	×	×
Room temperature display	●	●
°C/°F 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 (WxHxD) (mm)	187x115x28	
Power supply	1 phase, 100-240V, 50/60Hz	
Outdoor unit series	All series*	

Note:
 ●: equipped as standard; ×: without this function
 *For the V6R series , the CCM-15 is under development.

High Compatibility

Compatible with a variety of operating systems.



User Friendly Interface

Clear, stylish interface designed by leading industrial designers.



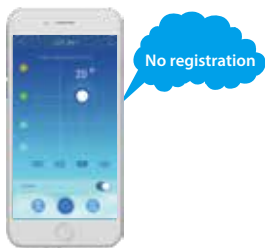
Cloud Server Website

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.



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.



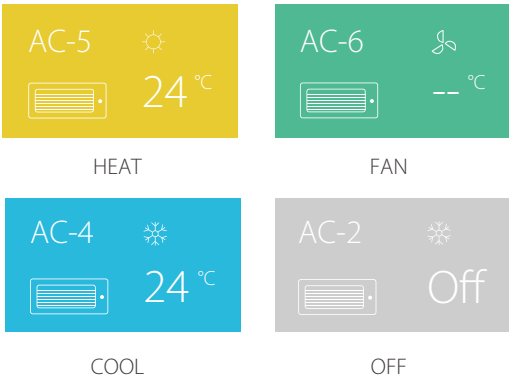
Anytime Control

Remote access to CCM-15 allows anytime, anywhere control.



Clear Icons

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



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.



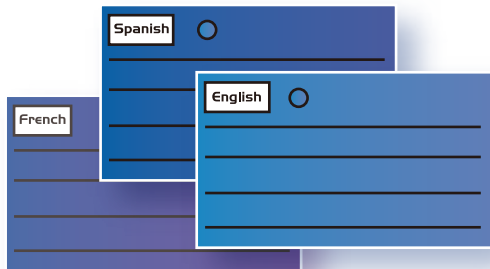
2 Permission Levels

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



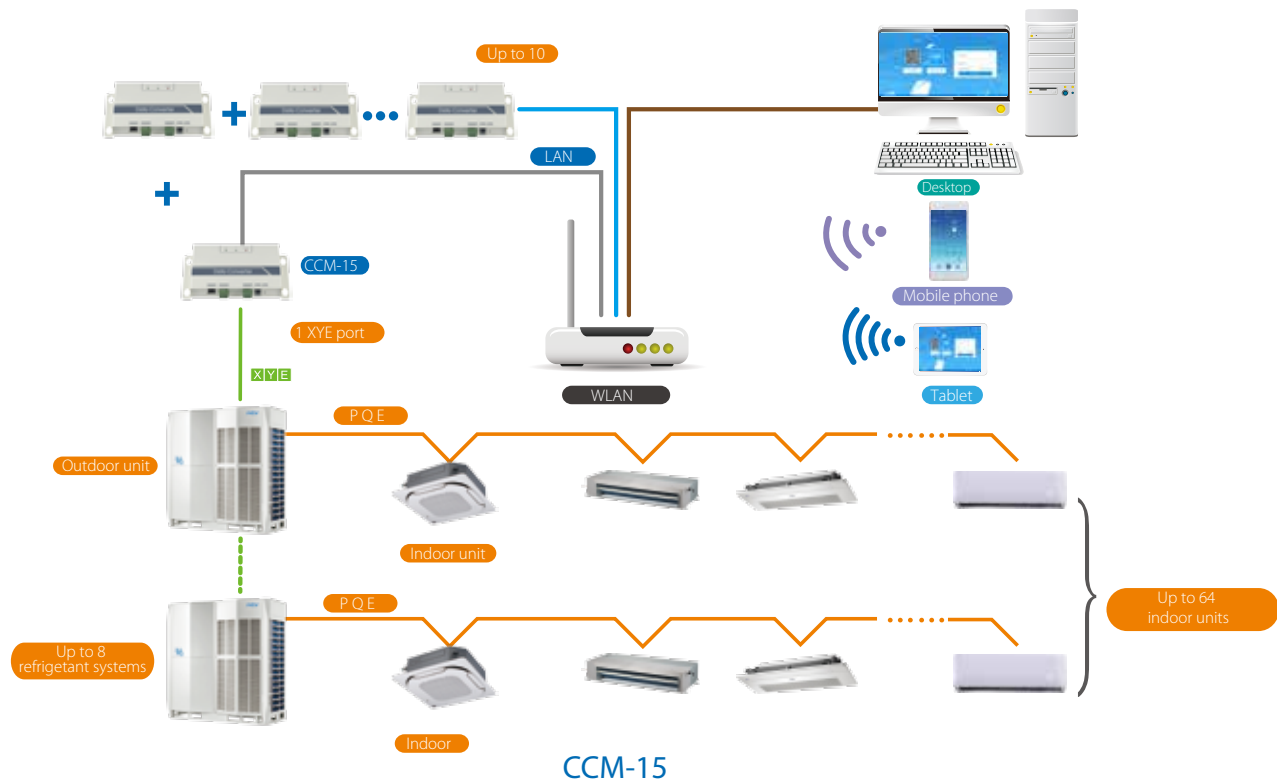
Multiple Language Options

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



Flexibility






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



Network Control System



Features

Software model			
	IMMP-S(A)		IMM
Hardware model			
	IMMP-BAC(A)	CCM-270B/WS(A)	M-interface
Max. number per software system	10	10	4
Max. number of indoor units	2560	3840	1024
Max. number of refrigerant systems	320	480	16
Temperature setting	● (0.5°C steps)	● (0.5°C steps)	● (1°C steps)
7-speed fan control*	●	●	× (3-speed)
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		9 languages
Dimensions (W×H×D) (mm)	251×319×61	270×183×27	251×319×66
Power supply	1 phase, 100-240V, 50/60Hz	24V AC	1 phase, 100-240V, 50/60Hz
Outdoor unit series	V6/V6i/V6R/V4+I(10-12HP)/Mini C		V4+I(except for 10-12HP)/V4+W/Mini VRF-Standard Series

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

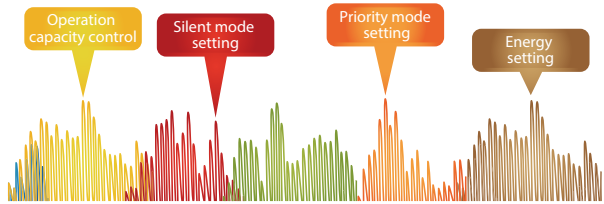
User-friendly Interface

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.



Note: This function is only available for V6/V6i outdoor unit.

Electricity Charge Distribution

The IMMPRO uses the patented MDV 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.



Floor Plan

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.

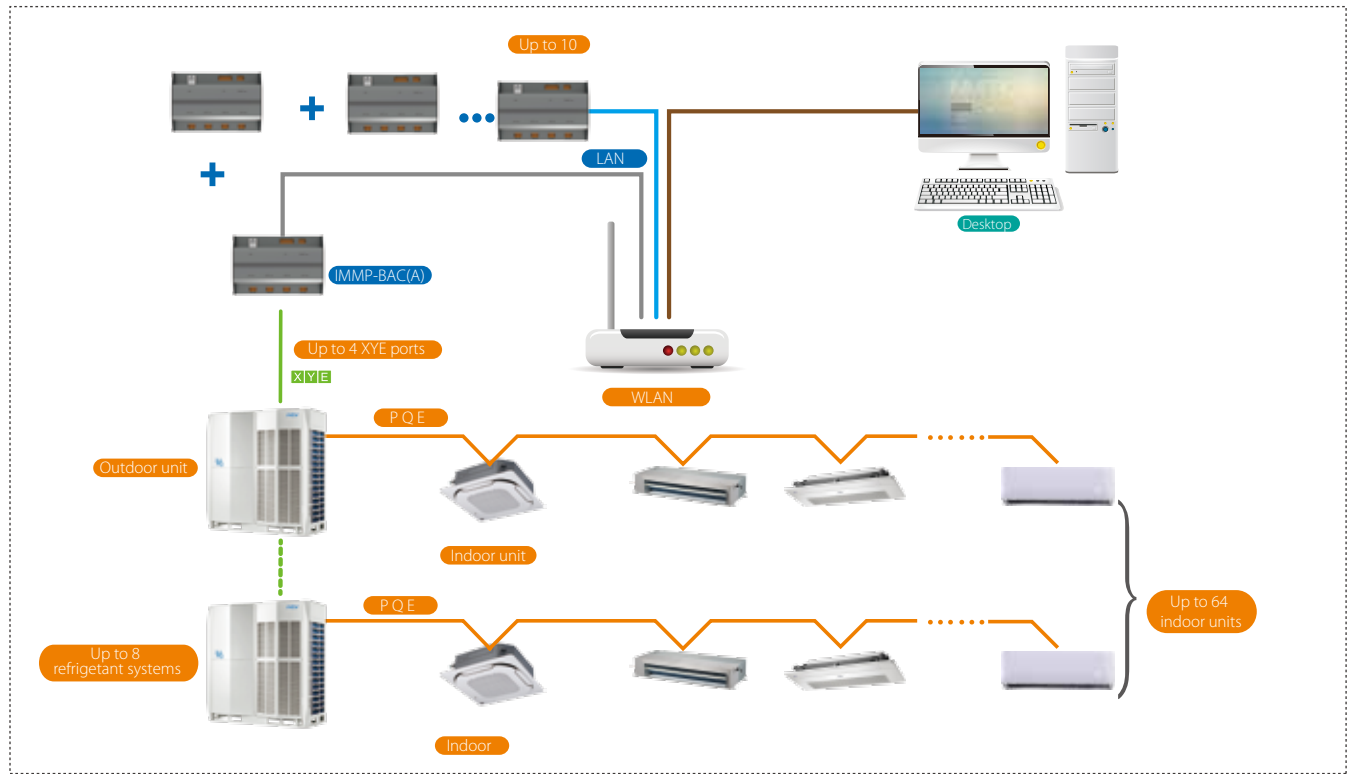


Xpress Installation

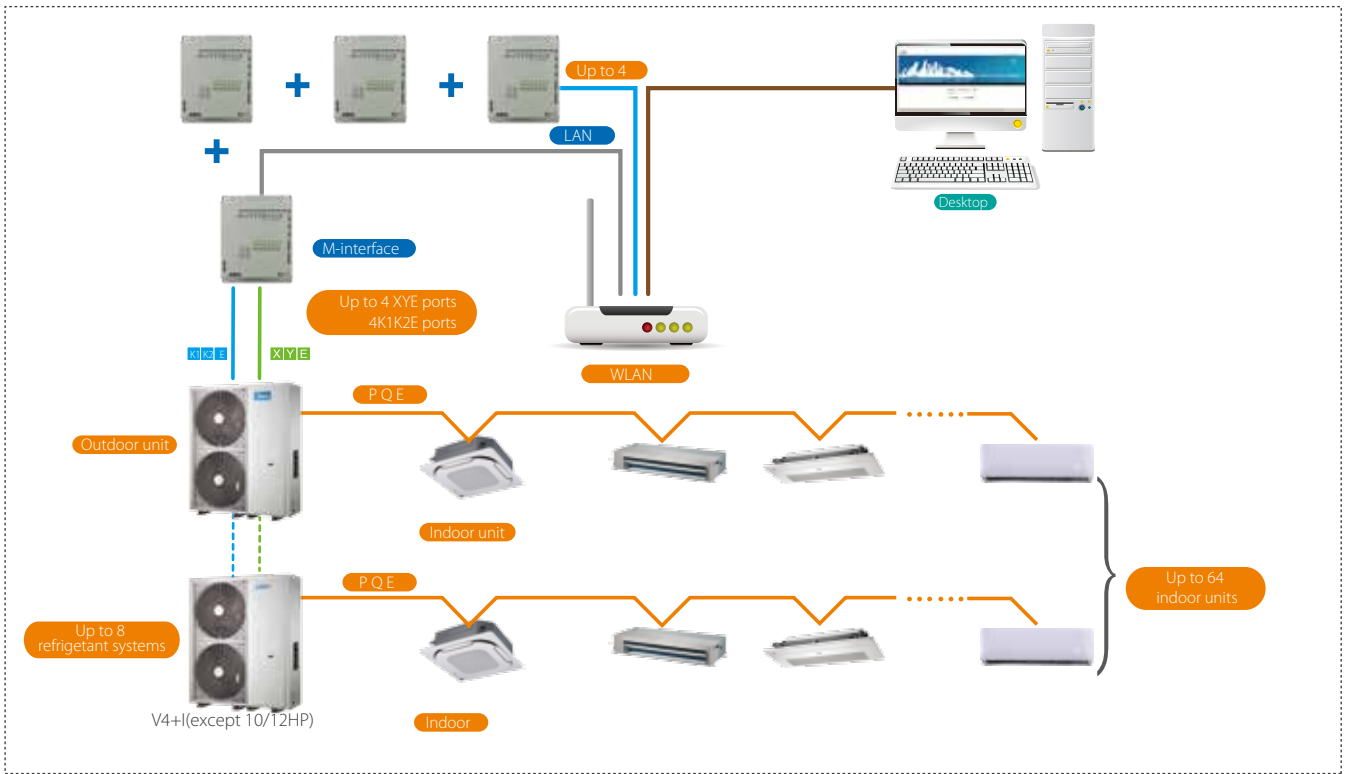
With the Xpress Installation wizard, IMMPRO can be installed quickly and easily without requiring support from a technical support engineer.



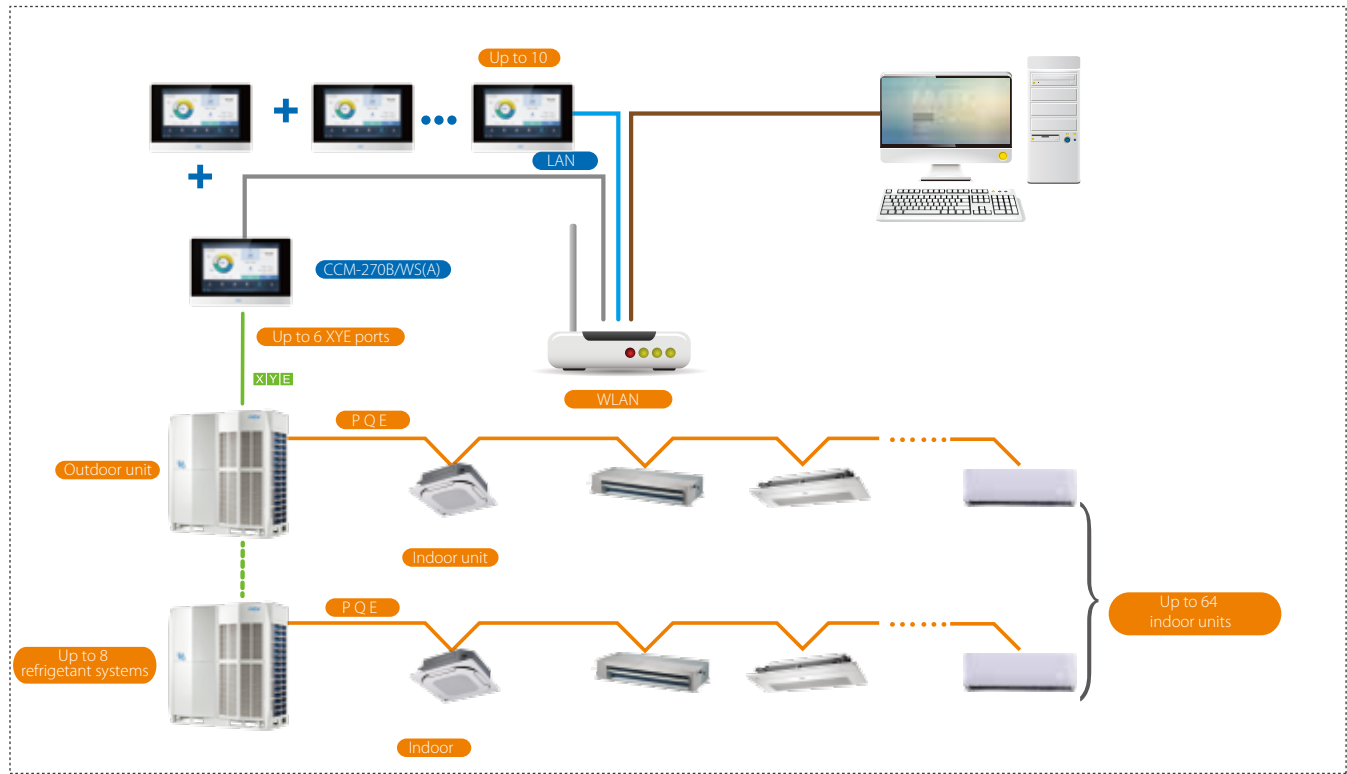
Network Flexibility



IMMP-BAC(A)



M-interface



CCM-270B/WS(A)

Project Qty Level A

57,028

Current month

5,325

VRF 3,204 Air-cooled modular chiller/water system 459

Air-cooled heat pump 1,541 Centrifugal/screw chiller/water system 130

2019年12月24日 20:16:23

Shunde

	12.25	12.26	12.27	12.28
	Wednesday	Thursday	Friday	Saturday
	20			
	16-26°C	16-26°C	13-25°C	15-21°C
NWwind 2level	Cloudy	Cloudy	Cloudy	Light rain

Transient Chain Indexes

Yesterday		Today
21.40	Outdoor temp. °C	19.37
82.27	RH %	81.56
19.30	WB temp. °C	17.29
18.28	Dew-point temp. °C	16.15
13.30	Moisture content g/kg	11.60
2.32	Total power kW	1.26
0.00	Cooling capacity kW	0.00

Real-Time Monitoring Data



Plant Room Power Data



BMS Gateway

Monitoring and control of MDV'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.

MDV's gateway devices provide full compatibility with the leading BMS protocols: BACnet, LonWorks, Modbus and KNX.

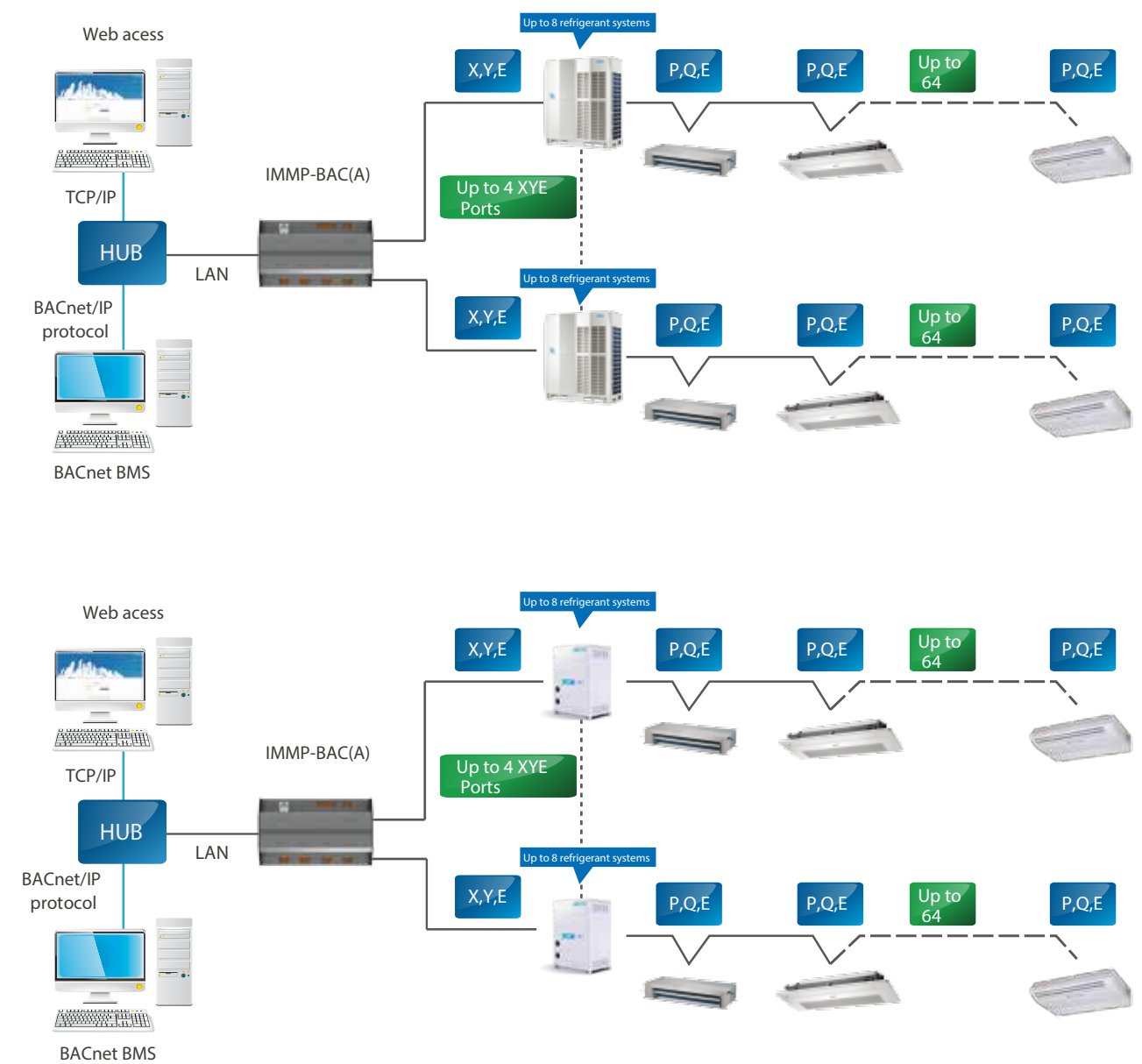
BACnet Gateway

Full Integration

The Bacnet Gateway allows MDV 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 or K1K2E ports directly.



Note: Need to use a protocol conversion kit if you want to get the ODU parameters also for V4+W/ V4+I(Except 10/12HP) ODU

Features

Model		 IMMP-BAC(A)	
Max. number of devices (include indoor and outdoor units)		256	
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	
Outdoor unit series		All series	

Note:
●:equipped as standard

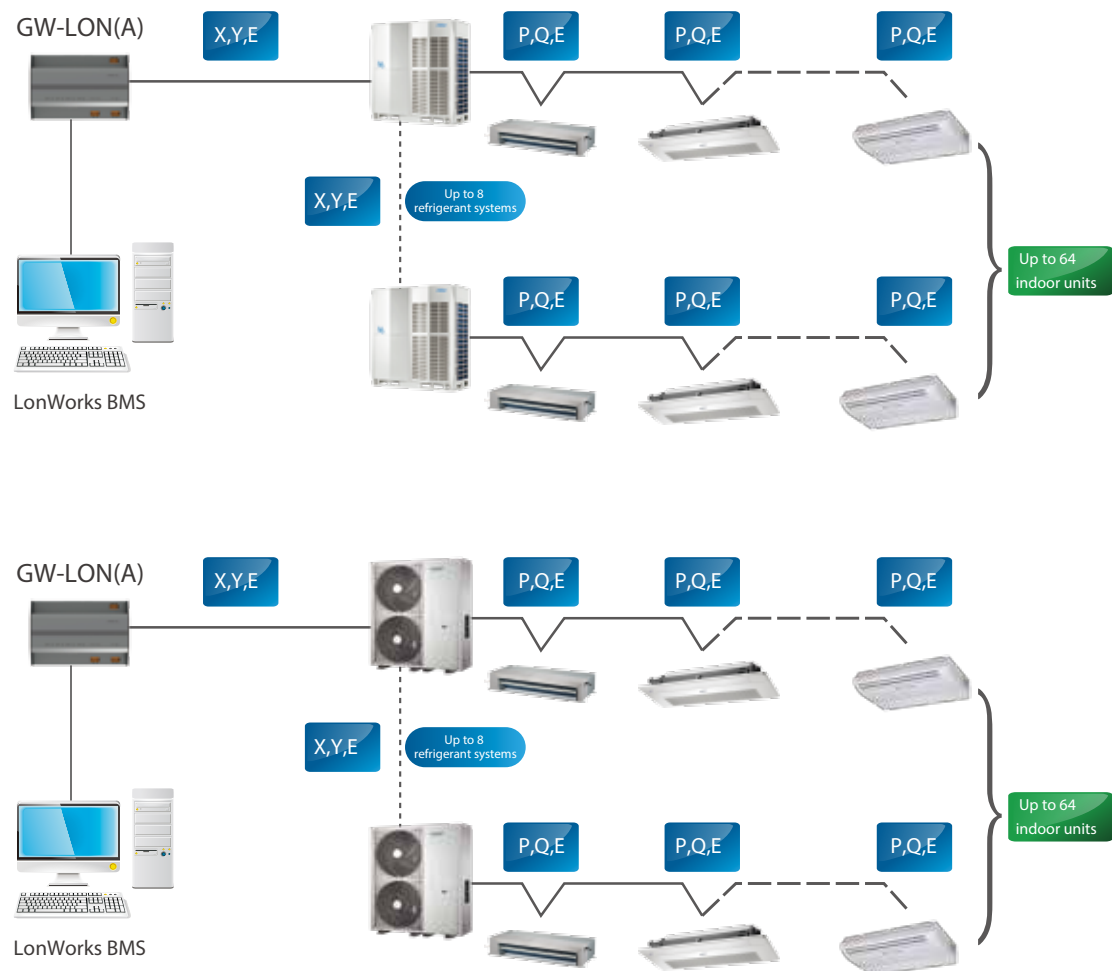
LonWorks Gateway

Full Integration


The LonWorks Gateway allows MDV 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

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



Features

Model		 GW-LON(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	●	
Outdoor unit monitoring	Error status	●	
	Error status	●	
Dimensions (HxWxD)(mm)		116×170×67	
Power supply		24V AC~50/60Hz	
Outdoor unit series		All series	

Note:
●: equipped as standard

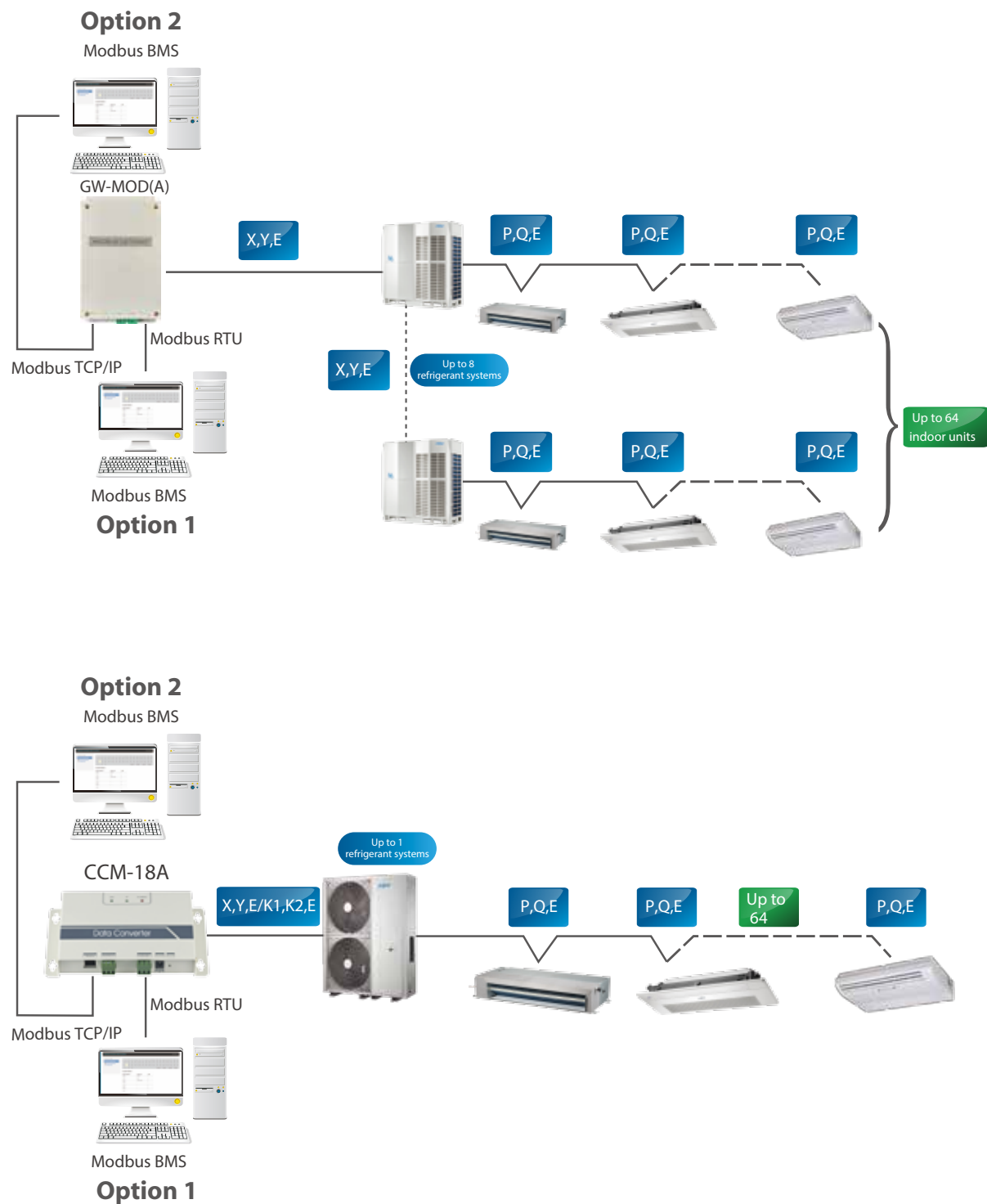
Modbus Gateway

Full Integration

The Modbus Gateway enables seamless connection of MDV VRF systems with building management systems built on the Modbus communication protocol.

Network Flexibility

The gateway can be connected to master outdoor units' XYE or K1K2E ports directly.



Features

Model		GW-MOD(A)	CCM-18A/N	CCM-18A/N-U
Max. number of indoor units		64	64	16
Max. number of refrigerant systems		8	1	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	●	●	×
	Number of operating IDUs	●	●	×
	Outdoor ambient temperature	●	●	×
	Error status	●	●	×
LAN access		●	●	●
Dimensions (HxWxD)(mm)		225x128x28	187x115x28	
Power supply		12V DC	1 phase, 100-240V, 50/60Hz	
Outdoor unit series		V6/V6i/V6R/V4+I(10-12HP), Mini C ODU	V4+I(Except 10/12HP)/Mini VRF-Standard Series	

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

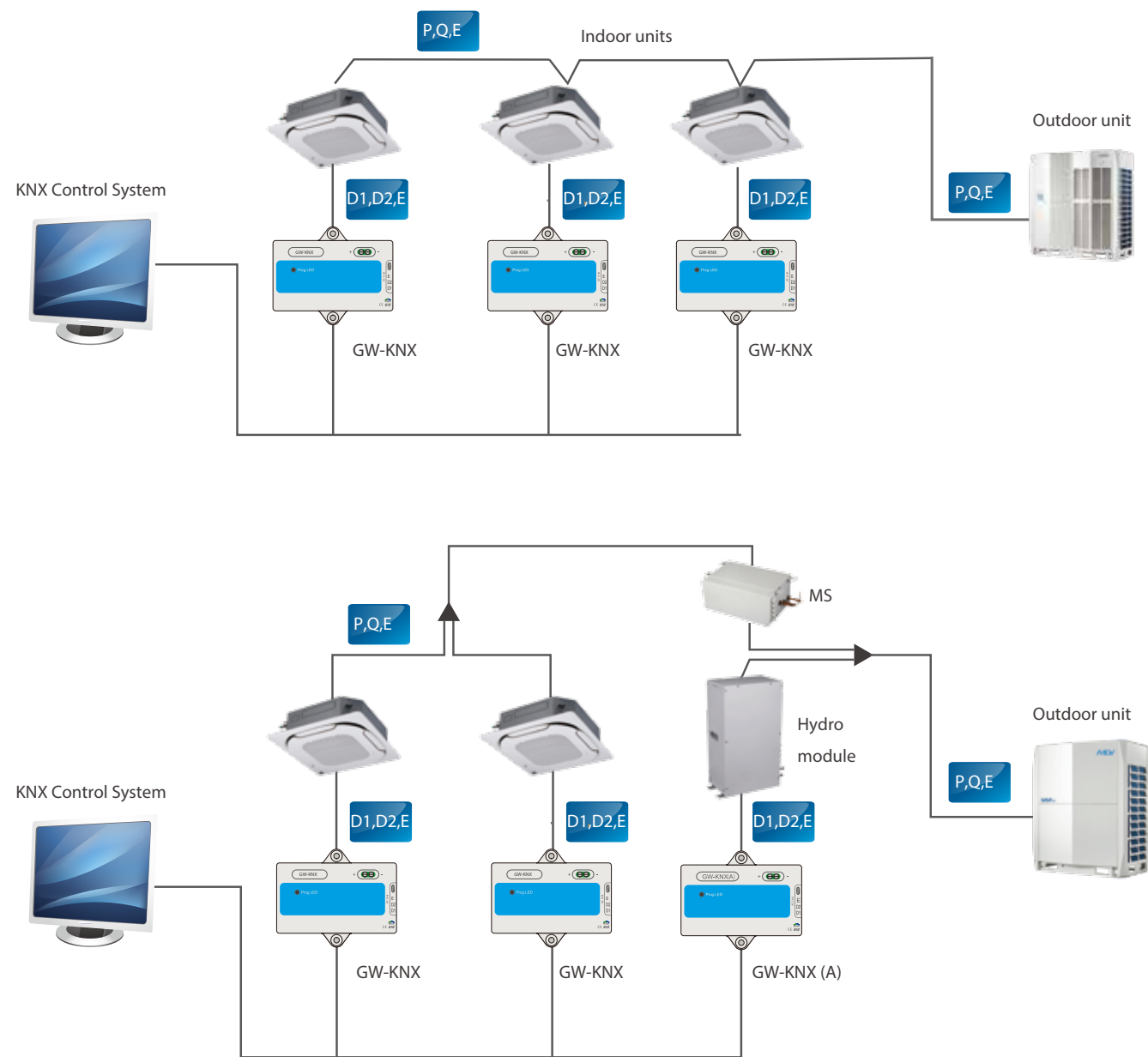
KNX Gateway

Full Integration

The KNX Gateway enables full integration of MDV 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		GW-KNX	
Max. number of indoor units		1	
Control	On / Off	●	
	Mode selection	●	
	Temperature setting	● (1°C 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		2 nd generation AC/DC IDU	

Model		GW-KNX(A)	
Max. number of HTHM		1	
Control	On / Off	●	
	Room temperature	●	
	Water outlet temperature	●	
	Mode Switching	●	
	Temperature control in water heating mode	●	
Monitoring	On / Off	●	
	Current running mode	●	
	Water outlet temperature	●	
	Room temperature	●	
	Control status	●	
	Current temperature in water heating mode	●	
Error codes		●	
Dimensions (HxWxD)(mm)		85×51×16	
Power supply		29VDC (KNX bus supply)	
Indoor unit series		High Temperature Hydro Module for V6R	

Note:
●: equipped as standard

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	MA-HKCW	MA-HKCS
Appearance		
Network flexibility		
Auto restart	●	●
Compatibility	Remote and wired controller	Remote and wired controller
Dimensions (H×W×D) (mm)	15.5×86×72.8	87×150×70
Power supply	5V DC (Supplied by indoor unit)	220V AC
Indoor unit series	All series	

Note:
●: equipped as standard

Infrared Sensor Controller

Full Integration
Using infrared sensors to detect movement, the MD-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	MA-IS
Appearance	
Network flexibility	
Dimensions (HxWxD)(mm)	Sensor 46x30x25.6, Control box 86x72.8x15.5
Power supply	5V DC (Supplied by indoor unit)
Indoor unit series	all series

Diagnosis Software

Monitor and Diagnose

MDV'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		 HBT-DIAG-B(A)
Max. number of indoor units		64
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	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, refrigerant flow diagram, parameter chart
Languages supported		English, Chinese, French, Spanish, Portuguese, Italian, German, Polish, Turkish, Hungarian, Russian, Korean
Outdoor unit series		V6/V6i ODU

Note:
 ●: equipped as standard
 1. Heat exchanger temperature, outdoor ambient temperature, discharge temperature.
 2. 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.

Expert Diagnosis

MDV's VRF Diagnosis Software is specially designed to allow service engineers, to understand the operating status of the system at a glance.



Parameter Querying

Access all the system parameters easily.



Use-friendly Interface

A stylish and simple interface with rich graphical representations makes diagnosing system issues quick and convenient.



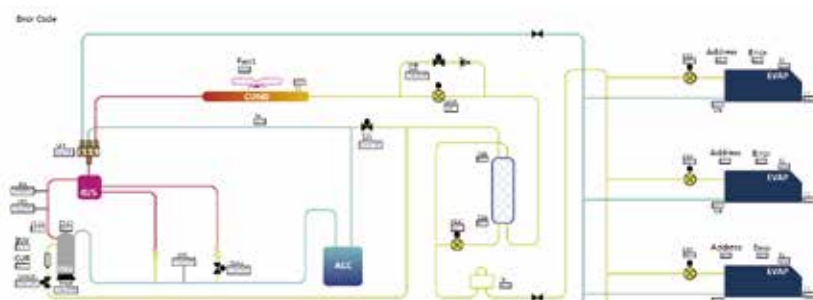
Data Logs

Data logs including operating records and error reports are saved by the software which is useful for discovering system issues.

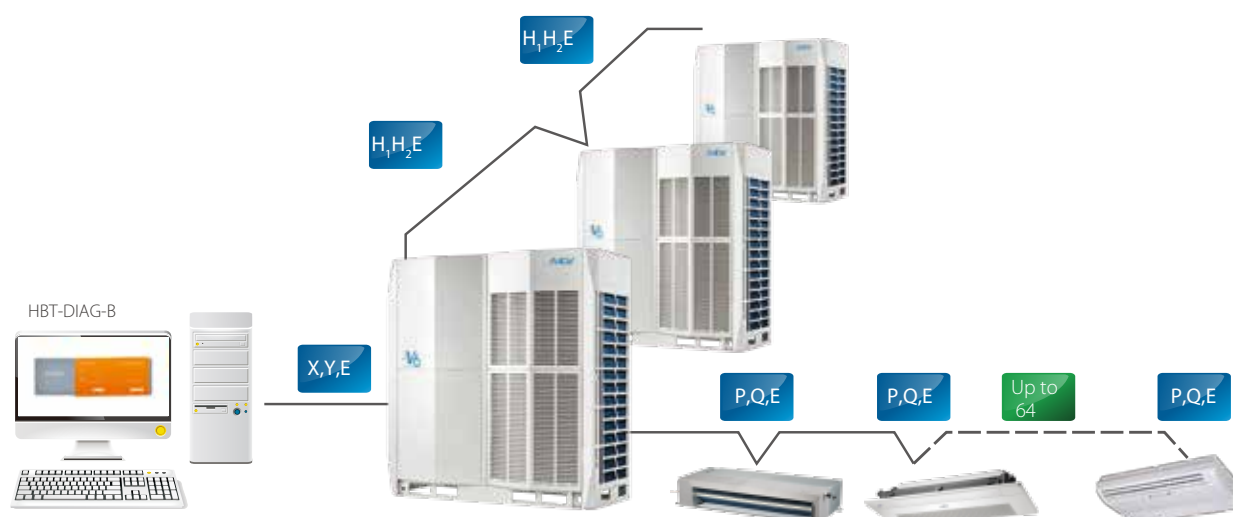


Diagrams

A system schematic, refrigerant flow diagram and parameter chart can be generated to provide a graphical interpretation of the system status.



Wiring Schematic




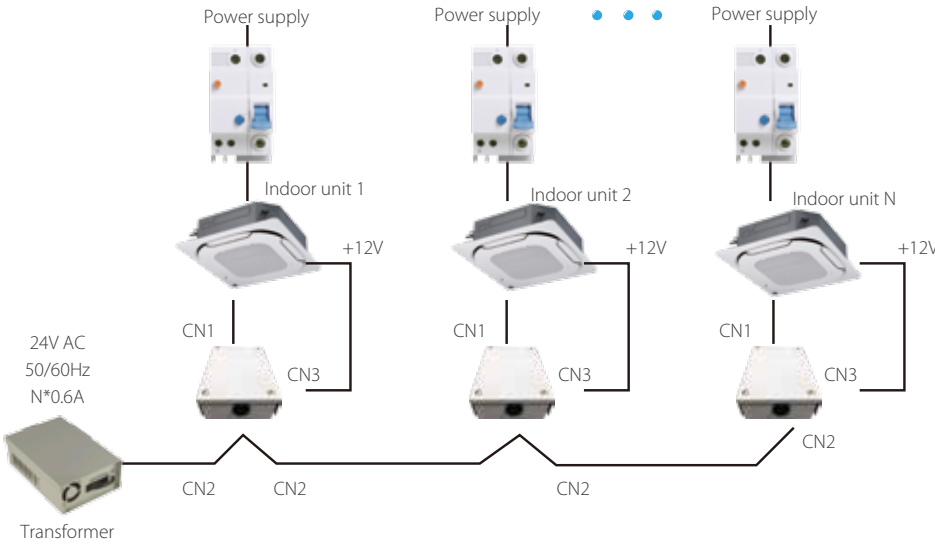
Indoor Unit Online Kit



IDU Online Kit

If the power supply for one indoor unit fails , the indoor unit will still remain online and the whole VRF system will not stop. The IDU online kit will keep the indoor unit online , thus keeping the other indoor units of the system working normally and prevent unnecessary shutdown.

Features


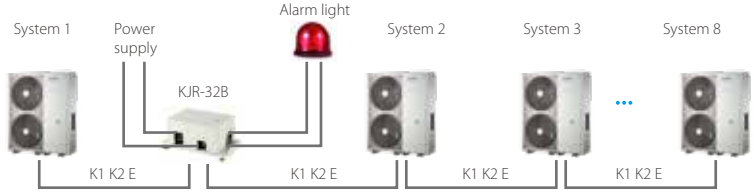

Model	 <p>HBT-PIDU</p>
Network flexibility	
Dimensions (HxWxD)(mm)	146.6 x 100.6x 46.8
Power supply	24V AC
Indoor unit series	All series

Remote Alarm Module

Simple Design

KJR-32B is specially designed for engineering applications. It does not display the ODU's working parameters parameters. When the outdoor unit fails, this module can output an alarm signal to remind you that the outdoor unit has failed.

Features


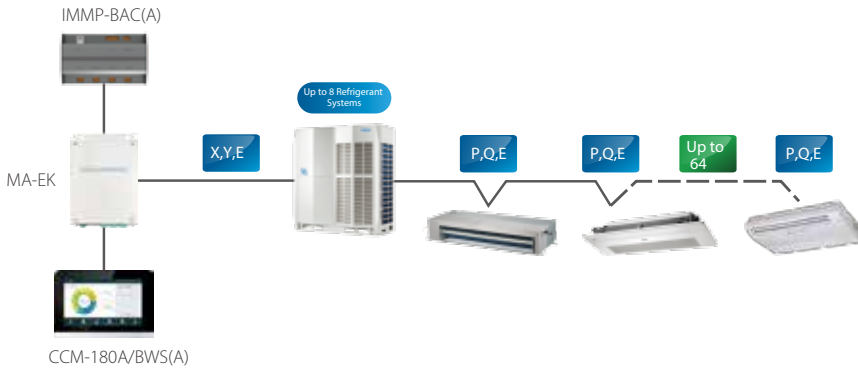
Model	 <p>KJR-32B</p>
Max. number of refrigerant systems	8
Wiring flexibility	<p>Wiring connection 1:</p>  <p>Wiring connection 2:</p> 
Dimensions (HxWxD)(mm)	85X150X70
Power supply	198-242V (50/60Hz)
Outdoor unit series	V4+I(except for 10-12HP)/V4+W ODU

XYE Extension Kit

Simple Design

The MA-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	 MA-EK
Max. number of refrigerant systems	8
Wiring flexibility	
Dimensions (HxWxD)(mm)	128X225X28
Power supply	12V DC
Outdoor unit series	all series*

*Note: Need to use a protocol conversion kit if you want to get the ODU parameters also for V4+W/ V4+I(Except 10/12HP) ODU

VRF DX AHU Control Box

High Efficiency

AHU Control Box facilitates raising the EER/COP of the complete AHU system.



Wide Capacity Range

Four control boxes can be used in parallel, giving an overall capacity range of 0.8HP to 80HP.



AHUKZ-00B: 2.2~9kW
 AHUKZ-01B: 9~20kW
 AHUKZ-02B: 20~36kW
 AHUKZ-03B: 36~56kW



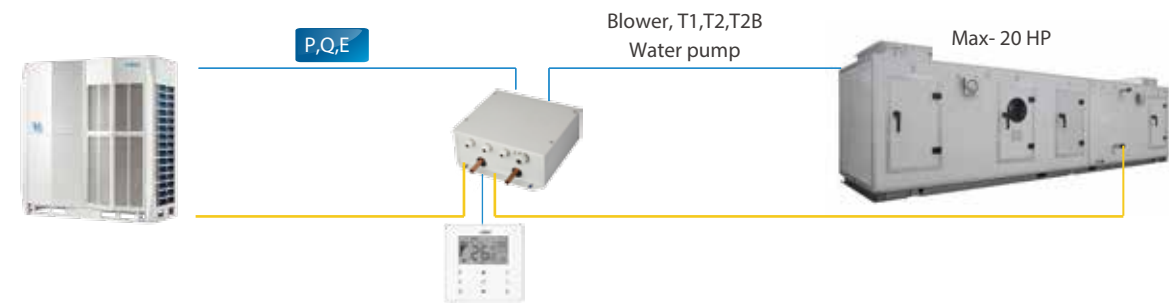
AHUKZ-00D: 2.2~9kW
 AHUKZ-01D: 9~20kW
 AHUKZ-02D: 20~36kW
 AHUKZ-03D: 36~56kW

Compatible with VRF Systems

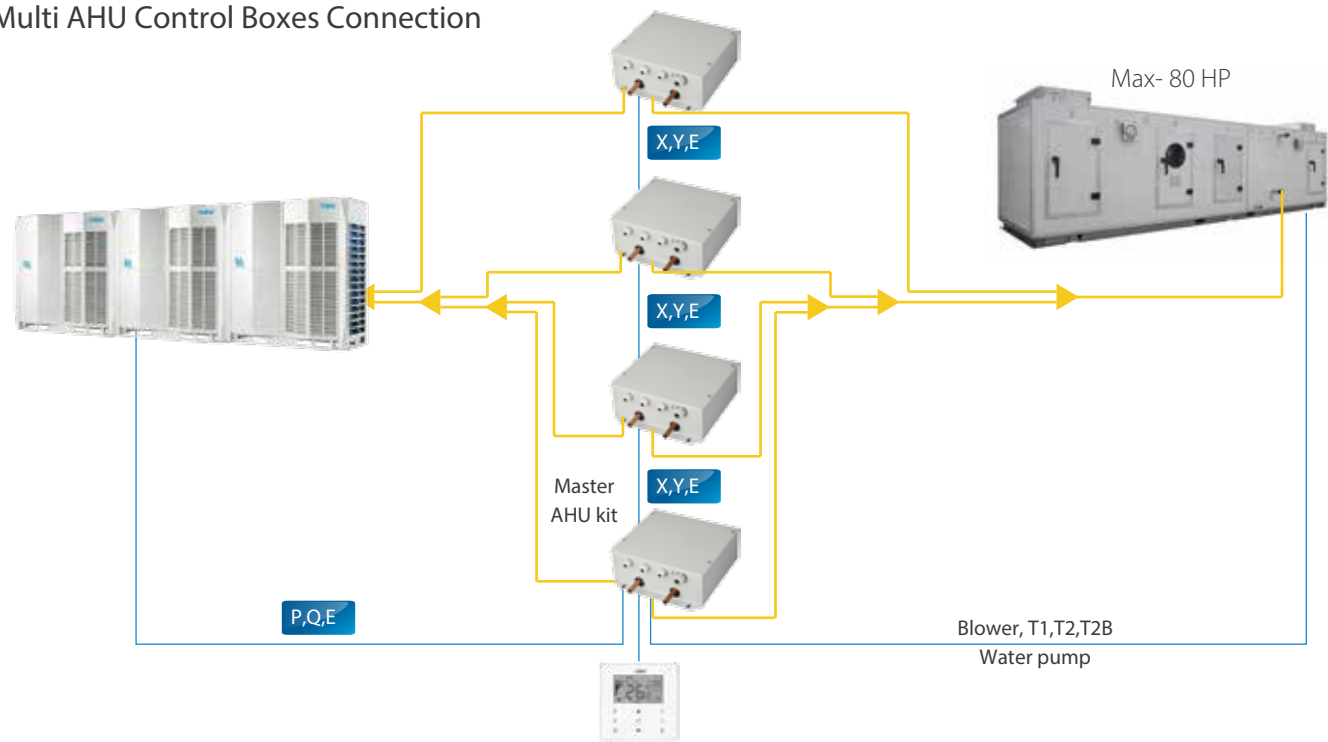
AHU Control Box are compatible with MDV VRF outdoor units and can be used together with all types of MDV VRF indoor units.



Single AHU Control Box Connection



Multi AHU Control Boxes Connection



Specifications

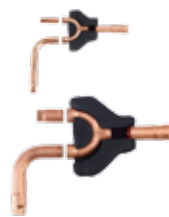


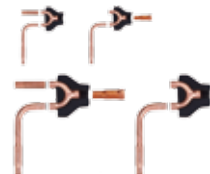
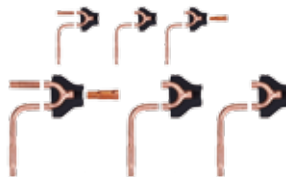
Model name	AHUKZ-00D	AHUKZ-01D	AHUKZ-02D	AHUKZ-03D
Capacity A (kW)	2.2≤A<9	9≤A≤20	20<A≤36	36<A≤56
Power supply	220-240V~50/60Hz			
Liquid pipe (in/out) (mm)	Φ9.53/Φ9.53	Φ9.53/Φ9.53	Φ12.7/Φ12.7	Φ15.9/Φ15.9
Dimension (WxHxD) (mm)	341x133x395			
Weight (kg)	5.7	5.7	5.8	6.0
Operation range (cooling on coil)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

Model name	AHUKZ-00B	AHUKZ-01B	AHUKZ-02B	AHUKZ-03B
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)	350x150x375			
Weight (kg)	8.4	8.4	8.7	8.9
Operation range (cooling on coil) (oC)	17-43			
Operation range (heating on coil) (oC)	5-30			
Applicable outdoor units	Heat pump / cooling only			

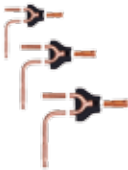
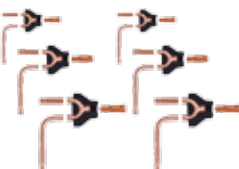
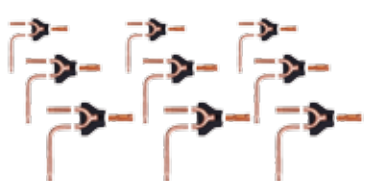

Branch Joints



For Heat Pump Outdoor Units

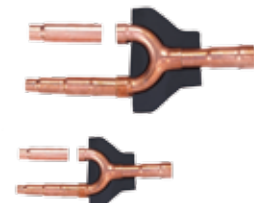
Type	Appearance	Model	PackedDimensions mm	GrossWeight kg	Note
Branch joints for V6 VRF		FQZHW-02N1E	255×150×185	2.0	Connecting two outdoor units
		FQZHW-03N1E	345×160×285	4.3	Connecting three outdoor units
Branch joints for V4+W VRF		FQZHW-02N1D	255×150×185	1.5	Connecting two outdoor units
		FQZHW-03N1D	345×160×285	3.4	Connecting three outdoor units
		FQZHW-04N1D	475×165×300	4.8	Connecting four outdoor units

For Heat Recovery Outdoor Units

Type	Appearance	Model	Packed Dimensions mm	GrossWeight kg	Note
Branch joints between outdoor unit		FQZHW-02SB	272×167×232	2.2	Connecting two outdoor units
		FQZHW-03SB	472×157×312	5.0	Connecting three outdoor units
		FQZHW-04SB	745×160×335	7.5	Connecting four outdoor units
Branch joints between MS and outdoor unit		FQZHN-01SB	257×127×107	0.8	
		FQZHN-02SB	287×137×107	0.9	
		FQZHN-03SB	297×167×177	1.4	
		FQZHN-04SB	372×197×187	2.3	
		FQZHN-05SB	432×222×227	3.3	

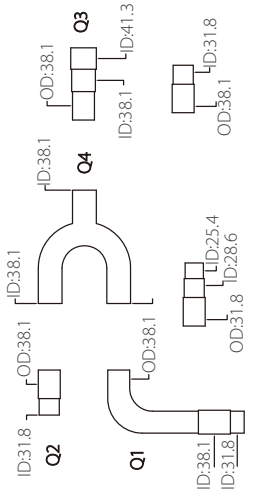
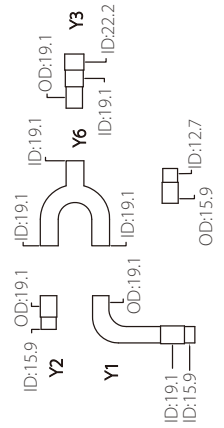
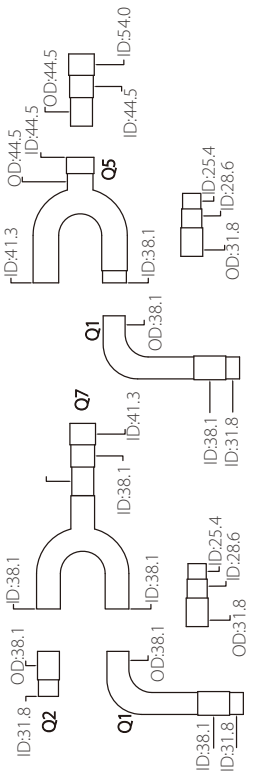
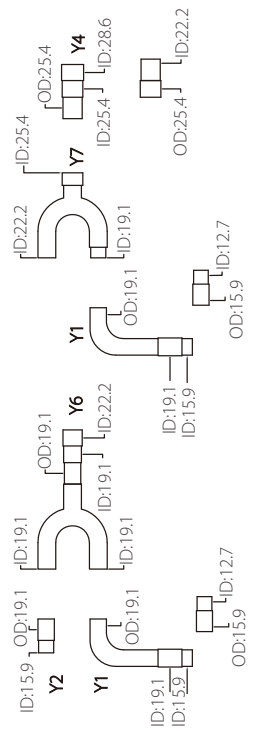
Branch Joints

For Indoor Units

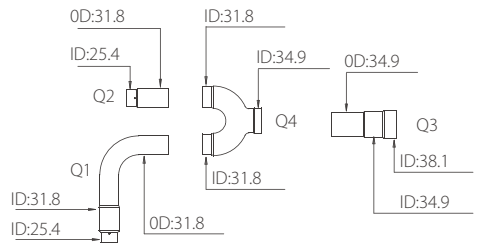
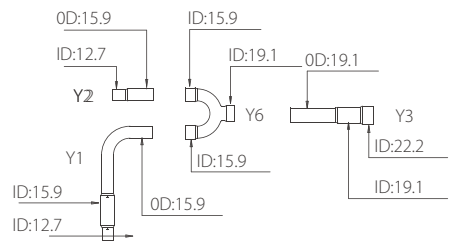
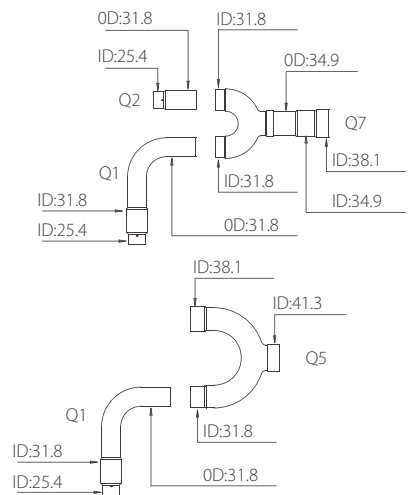
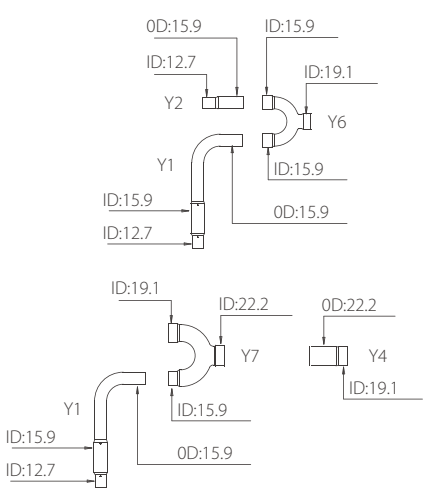
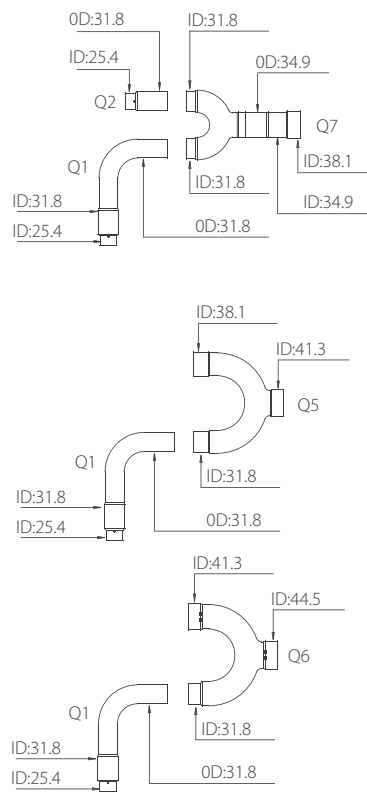
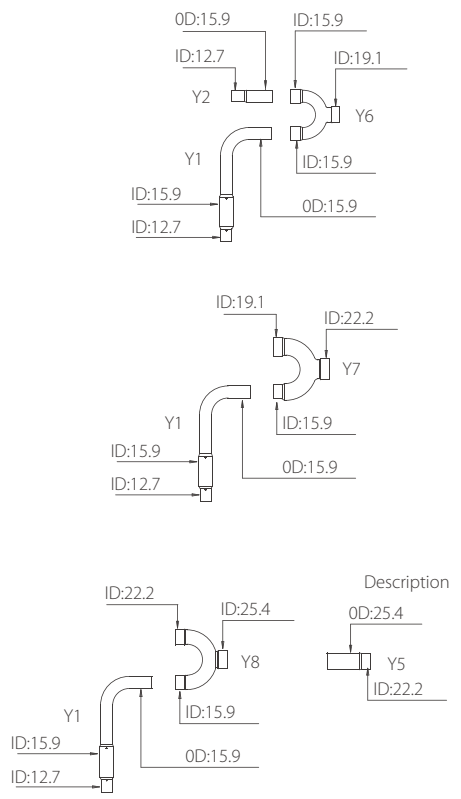
Type	Appearance	Model	PackedDimensions mm	GrossWeight kg	Note
Branch joints for indoor units		FQZHN - 01D	290×105×100	0.4	/
		FQZHN - 02D	290×105×100	0.6	/
		FQZHN - 03D	310×130×125	0.9	/
		FQZHN - 04D	350×180×170	1.5	/
		FQZHN - 05D	365×195×215	1.9	/
		FQZHN - 06D	390×230×255	3.1	/
		FQZHN - 07D	390×230×255	3.4	/

Dimensions

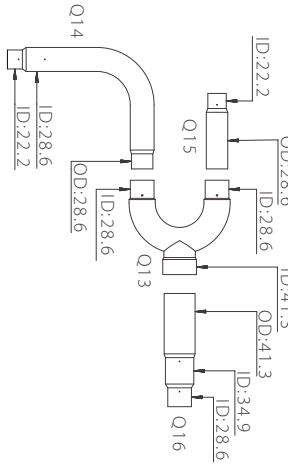
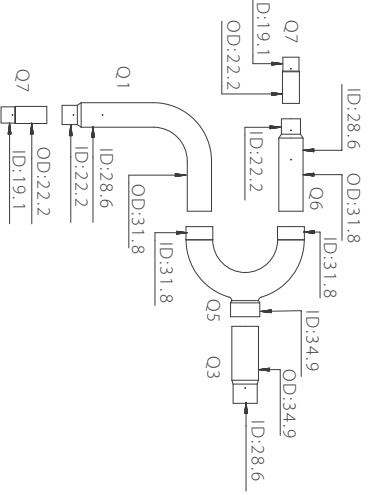
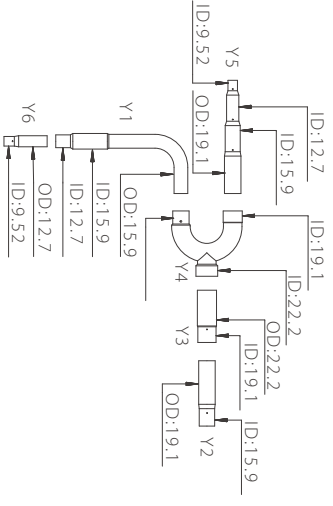
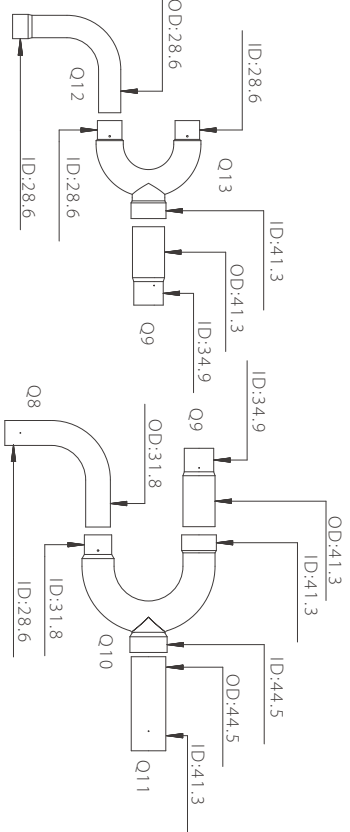
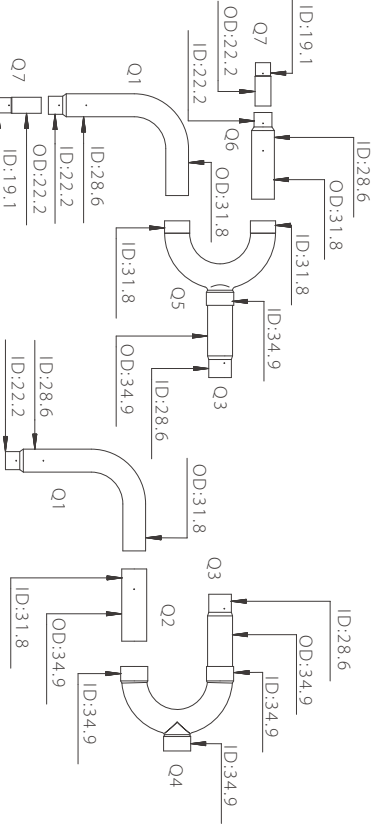
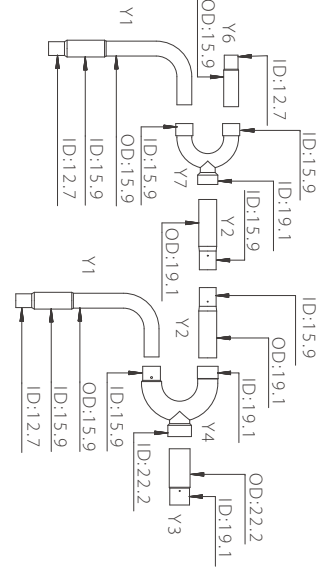
Outdoor Branch Joints

Model	Gas side joints	Liquid side joints
FQZHW-02N1E	 <p>Diagram showing gas side joints for FQZHW-02N1E. It includes three types of joints: Q2, Q3, and Q4. Q2 has ID:31.8 and OD:31.8. Q3 has ID:38.1 and OD:38.1. Q4 has ID:38.1 and OD:38.1. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>	 <p>Diagram showing liquid side joints for FQZHW-02N1E. It includes three types of joints: Y3, Y6, and Y7. Y3 has ID:19.1 and OD:19.1. Y6 has ID:19.1 and OD:19.1. Y7 has ID:19.1 and OD:19.1. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>
FQZHW-03N1E	 <p>Diagram showing gas side joints for FQZHW-03N1E. It includes three types of joints: Q1, Q2, and Q5. Q1 has ID:31.8 and OD:31.8. Q2 has ID:31.8 and OD:31.8. Q5 has ID:44.5 and OD:44.5. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>	 <p>Diagram showing liquid side joints for FQZHW-03N1E. It includes three types of joints: Y3, Y6, and Y7. Y3 has ID:19.1 and OD:19.1. Y6 has ID:19.1 and OD:19.1. Y7 has ID:19.1 and OD:19.1. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>

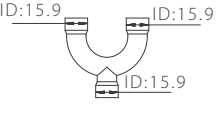
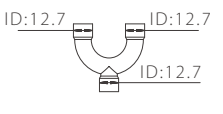
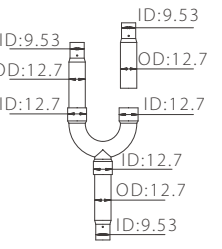
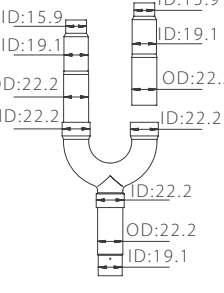
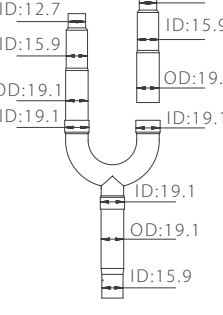
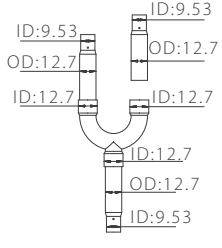
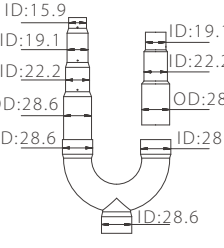
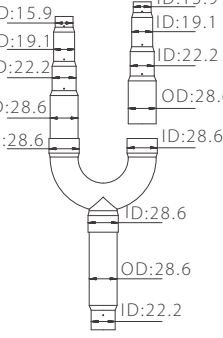
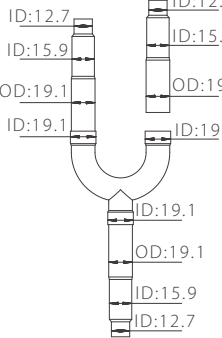
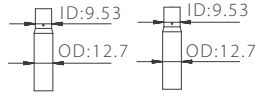
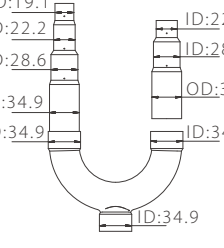
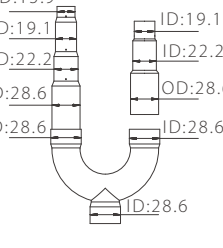
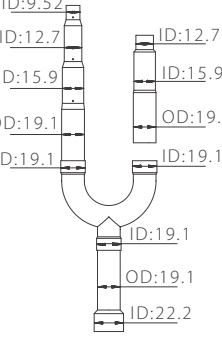
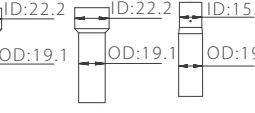
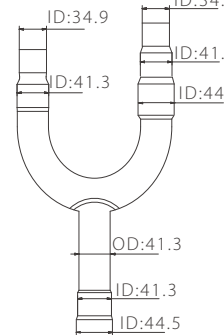
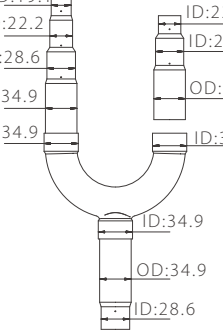
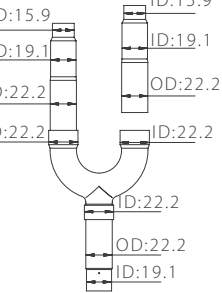
Outdoor Branch Joints

Model	Gas side joints	Liquid side joints
FQZHW-02N1D	 <p>Diagram showing gas side joints for FQZHW-02N1D. It includes three types of joints: Q1, Q2, and Q3. Q1 has ID:31.8 and OD:31.8. Q2 has ID:25.4 and OD:25.4. Q3 has ID:34.9 and OD:34.9. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>	 <p>Diagram showing liquid side joints for FQZHW-02N1D. It includes three types of joints: Y3, Y6, and Y7. Y3 has ID:19.1 and OD:19.1. Y6 has ID:19.1 and OD:19.1. Y7 has ID:19.1 and OD:19.1. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>
FQZHW-03N1D	 <p>Diagram showing gas side joints for FQZHW-03N1D. It includes three types of joints: Q1, Q2, and Q7. Q1 has ID:31.8 and OD:31.8. Q2 has ID:25.4 and OD:25.4. Q7 has ID:34.9 and OD:34.9. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>	 <p>Diagram showing liquid side joints for FQZHW-03N1D. It includes three types of joints: Y3, Y6, and Y7. Y3 has ID:19.1 and OD:19.1. Y6 has ID:19.1 and OD:19.1. Y7 has ID:19.1 and OD:19.1. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>
FQZHW-04N1D	 <p>Diagram showing gas side joints for FQZHW-04N1D. It includes three types of joints: Q1, Q2, and Q7. Q1 has ID:31.8 and OD:31.8. Q2 has ID:25.4 and OD:25.4. Q7 has ID:34.9 and OD:34.9. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>	 <p>Diagram showing liquid side joints for FQZHW-04N1D. It includes three types of joints: Y3, Y6, and Y7. Y3 has ID:19.1 and OD:19.1. Y6 has ID:19.1 and OD:19.1. Y7 has ID:19.1 and OD:19.1. There are also two types of Y-joints: Y1 and Y2. Y1 has ID:15.9 and OD:15.9. Y2 has ID:12.7 and OD:12.7.</p>

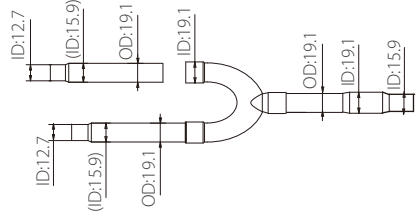
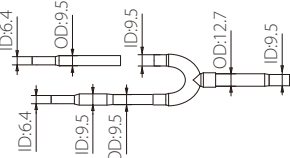
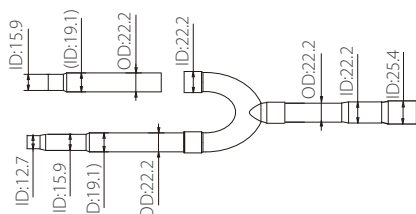
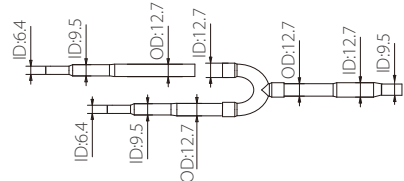
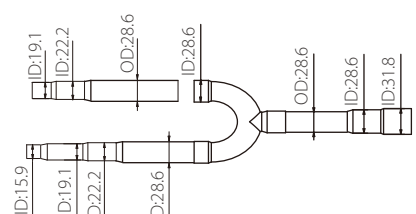
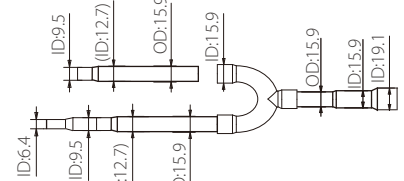
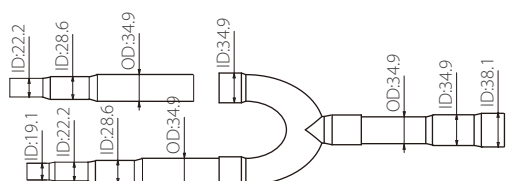
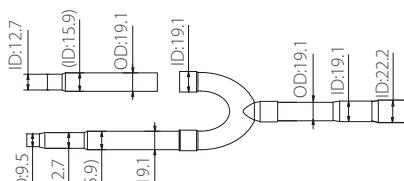
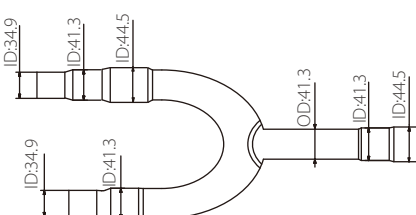
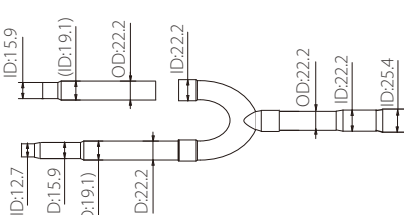
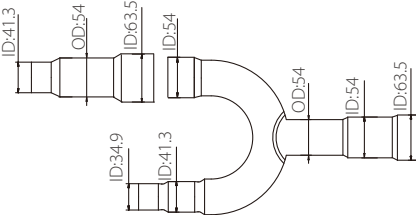
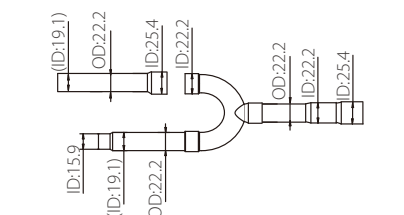
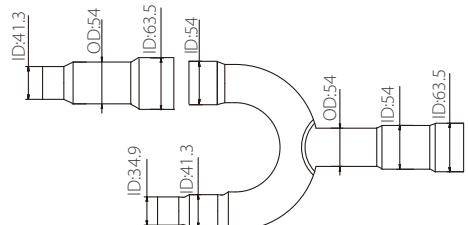
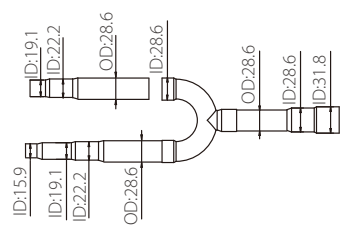
Outdoor Branch Joints

Model	Low-pressure gas side joints	High-pressure gas side joints	Liquid side joints
FQZHW-02SB1			
			

Branch Joints between MS and Outdoor Unit


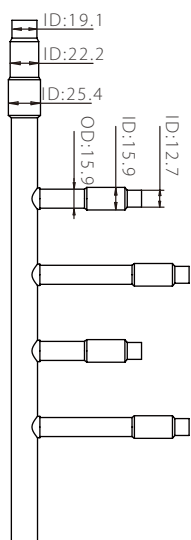
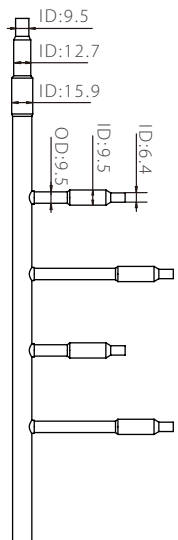

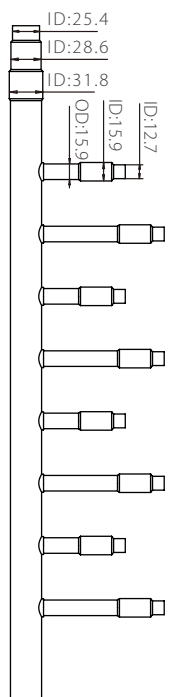
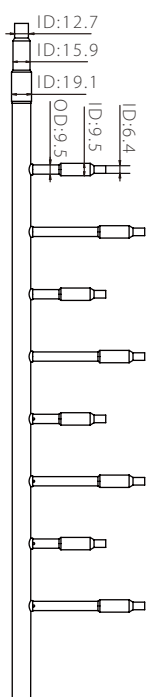
Model	Low-pressure gas side joints	High-pressure gas side joints	Liquid side joints	Converter pipe
FQZHN-01SB1				
FQZHN-02SB1				
FQZHN-03SB1				 (Liquid side used)
FQZHN-04SB1				 (Liquid side used)
FQZHN-05SB1				

Indoor Branch Joints

Model	Gas side joints	Liquid side joints
FQZHN-01D		
FQZHN-02D		
FQZHN-03D		
FQZHN-04D		
FQZHN-05D		
FQZHN-06D		
FQZHN-07D		

Branch Header

For Indoor Units

Model	Appearance	Gas side dimension	Liquid side dimension
DXFQT4-01			
DXFQT8-01			

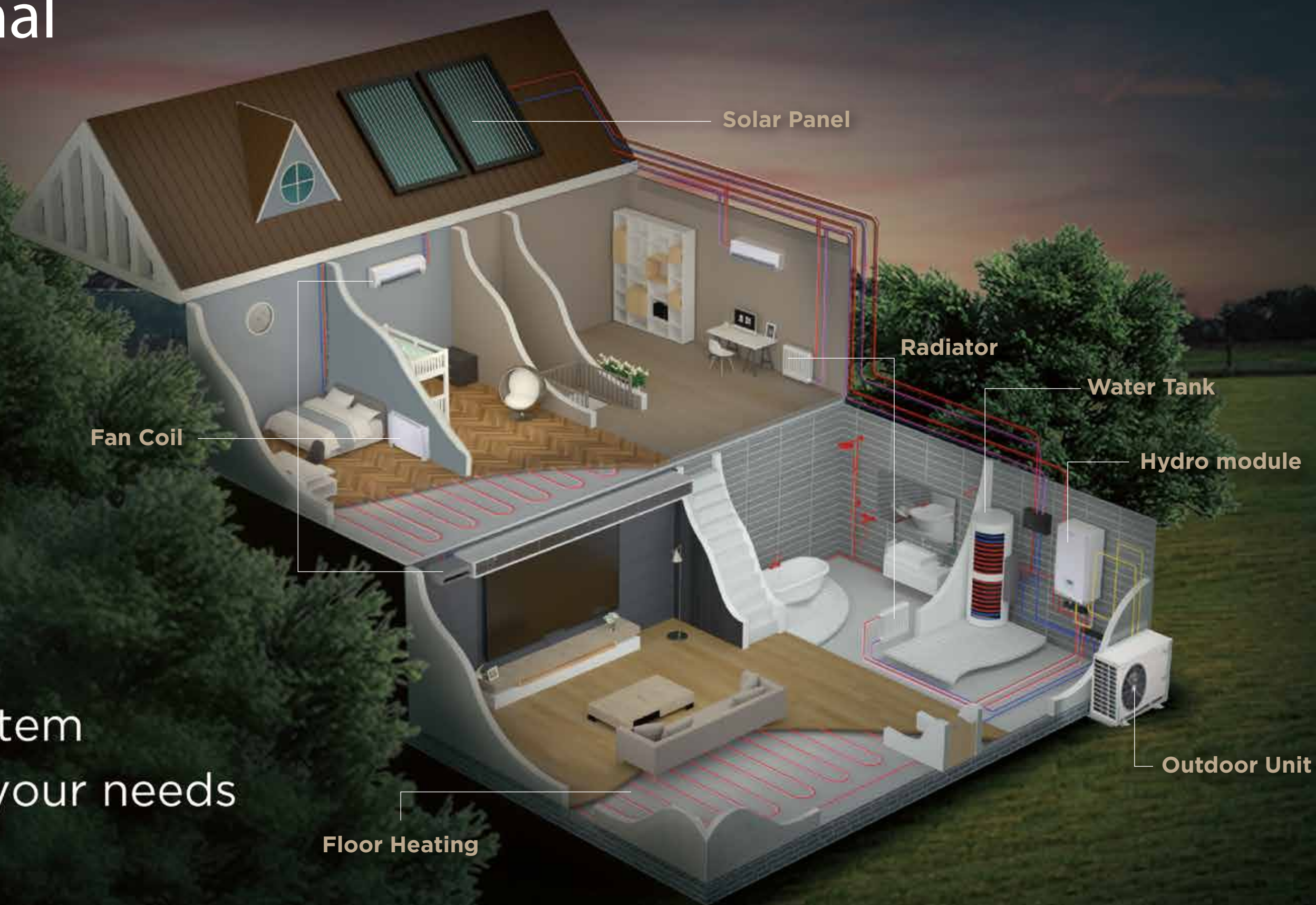
Heat pump solution

M thermal Arctic Series

Commercial water heater

Swimming pool application

M thermal



ONE system
for **ALL** your needs

What is M thermal?

M thermal is one kind of air source heat pump. It is capable of extracting heat from the surrounding air and transferring this heat indoors for space heating and domestic hot water.



1 Stage One

With the temperature of the refrigerant being lower than the ambient temperature, heat passes from the air flowing over the air side heat exchanger to the refrigerant and the refrigerant evaporates.

2 Stage Two

When the refrigerant vapor passes through the compressor, refrigerant pressure increases and temperature rises above that of the water in hydronic system.

3 Stage Three

As the hot vapor refrigerant passes through the water side heat exchanger it heats the water in the hydronic system, which is then pumped indoors to the space heating terminals or hot water tank. The refrigerant cools and condenses and then ready to return to the expansion valve to start the cycle again.

4 Stage Four

As the refrigerant passes through the expansion valve and expands, its temperature and pressure both drop.

Why is M thermal?

We are always working on it



2020
Arctic Series



2018
Eco Series

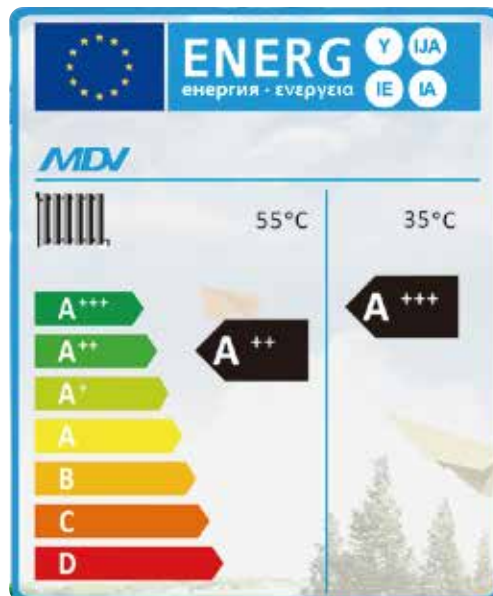


2016
Standard Series



2011
Initial generation

We are widely recognized



ERP Directive*

ηs. Seasonal space heating energy efficiency

ηs average up to **A+++** at 35°C

ηs average up to **A++** at 55°C

*It indicates the highest possible grade for M thermal product lineup. For specific grade of different models, please refer to the specifications.



Note:
MCS is available for A Series.

We are friendly to environment

Friendly environment refrigerant R32
Lower GWP 675 (GWP: Global Warming Potential)
Zero impact on the ozone layer
Less carbon emission

Higher heat transfer coefficient
Better performance in poor conditions
Less pressure loss
No temperature glide

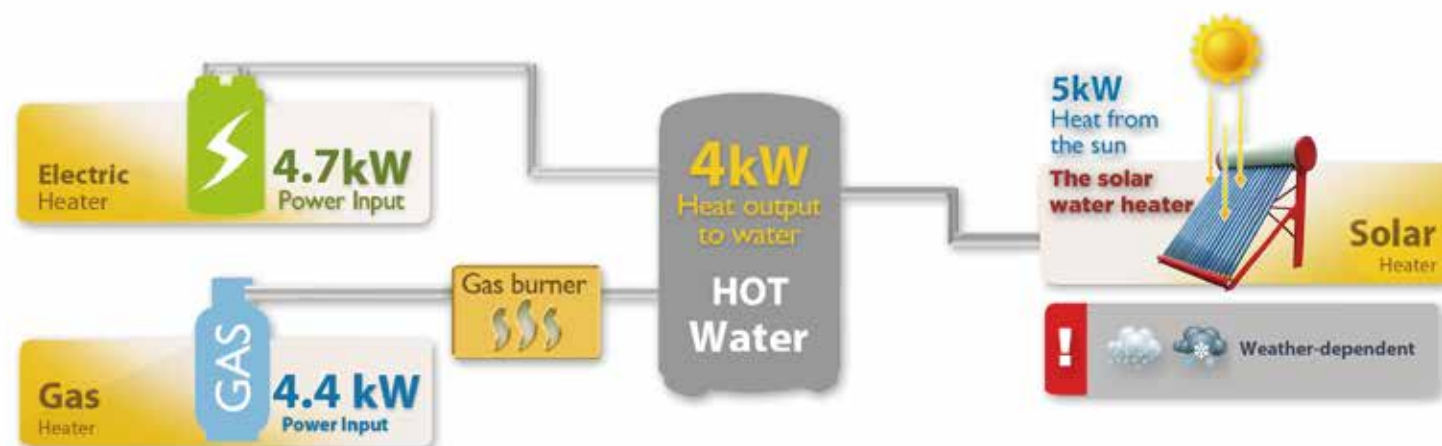
Easier to get
Less charged volume
Less cost



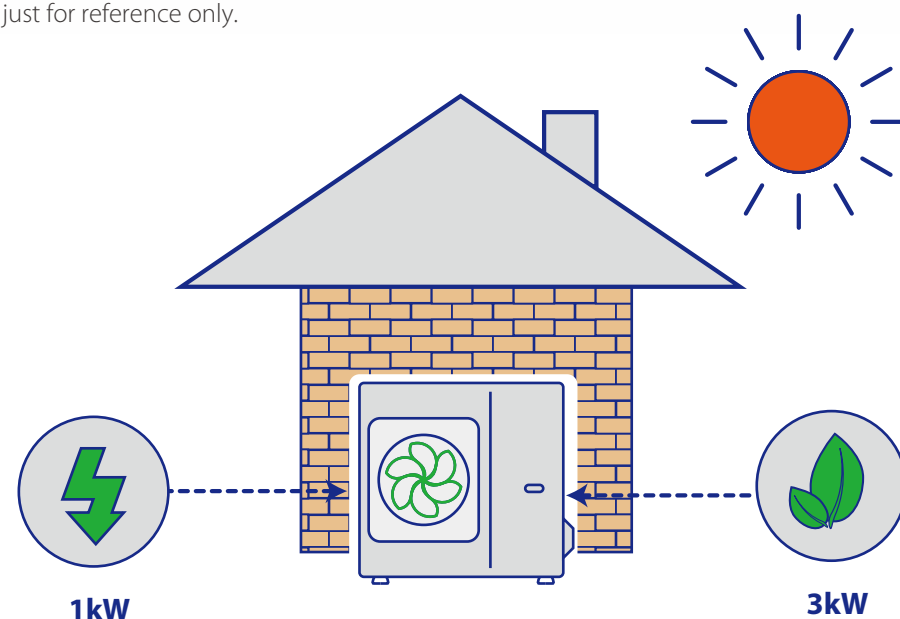
We are energy efficient



Typically around 3kWh of energy can be captured for every 1kWh of electrical energy expended, giving almost 4kWh of heat energy for only 1kWh of electrical input and giving efficiency of almost 400%.



Note: The data above is just for reference only.



We are reliable

DC Inverter fan motor

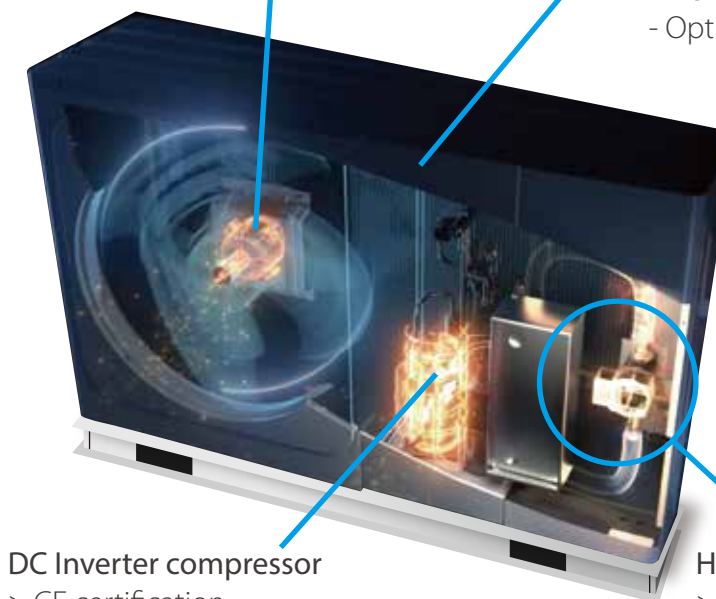
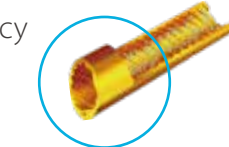
- > CE/CCC certification
- > BLDC fan motor with stepless control
- > Quiet operation
- > Low power consumption
- > 8 poles
- > Insulation grade E

High performance air side heat exchanger

- > Self-lubricating light golden hydrophilic aluminum foil
 - Enhanced anti-corrosion performance
 - Better hydrophilicity and less lubricating oil
- Standard products: 200h of neutral salt mist
- Heavy anti-corrosion products: 1000h of neutral salt mist, 140h of acid salt mist



- > Inner-threaded copper pipe
- Optimize heat exchange efficiency



DC Inverter compressor

- > CE certification
- > Wide working frequency
 - High efficiency
 - Six poles
 - Insulation grade E
- > Twin eccentric cams
 - 2 balance weights
 - Better balance
 - Low vibration
- > Spray liquid cooling control
 - Decrease discharge temperature
 - High reliability
- > Compact structure
 - Highly robust bearings
 - Highly stable moving parts

Hydraulic components from famous manufactures

- > Plate heat exchanger
 - > Expansion tank
 - > Water pump
 - DC Inverter design*
 - CE certification
 - High efficiency
 - Big pump head
 - Insulation grade F
 - Level of protection IPX4D
- *For E Series Mono and A Series Mono(18~30kW), water pump has three speed options, but units only use one of them.



M thermal Arctic Series

Focus on your comfort

Mono 4~30kW



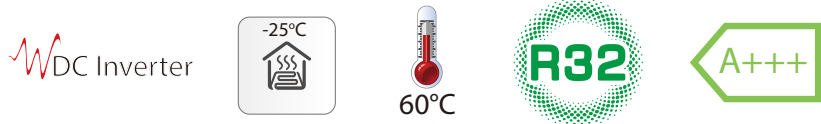
Product lineup

	Capacity (kW)	4	6	8	10	12	14	16	18	22	26	30
Mono	220~240V-1N-50Hz	•	•	•	•	•	•	•				
	380~415V-3N-50Hz					•	•	•	•	•	•	•



Overview

Refrigerant R32 75% less impact on global warming
 DC Inverter technology allows precise consumption on real load
 Maximum water temperature up to 60°C by heat pump
 Minimum operation ambient temperature down to -25°C.
 High energy efficiency level A+++ for energy saving (Water outlet temperature at 35°C)
 Offers heating capacity of 100% at -7°C.
 Provide space heating, cooling and domestic hot water, total heat solution
 Compatible with other heat sources such as solar panels and boilers



Compatible with different kinds of terminals

Fan coil unit



Radiator



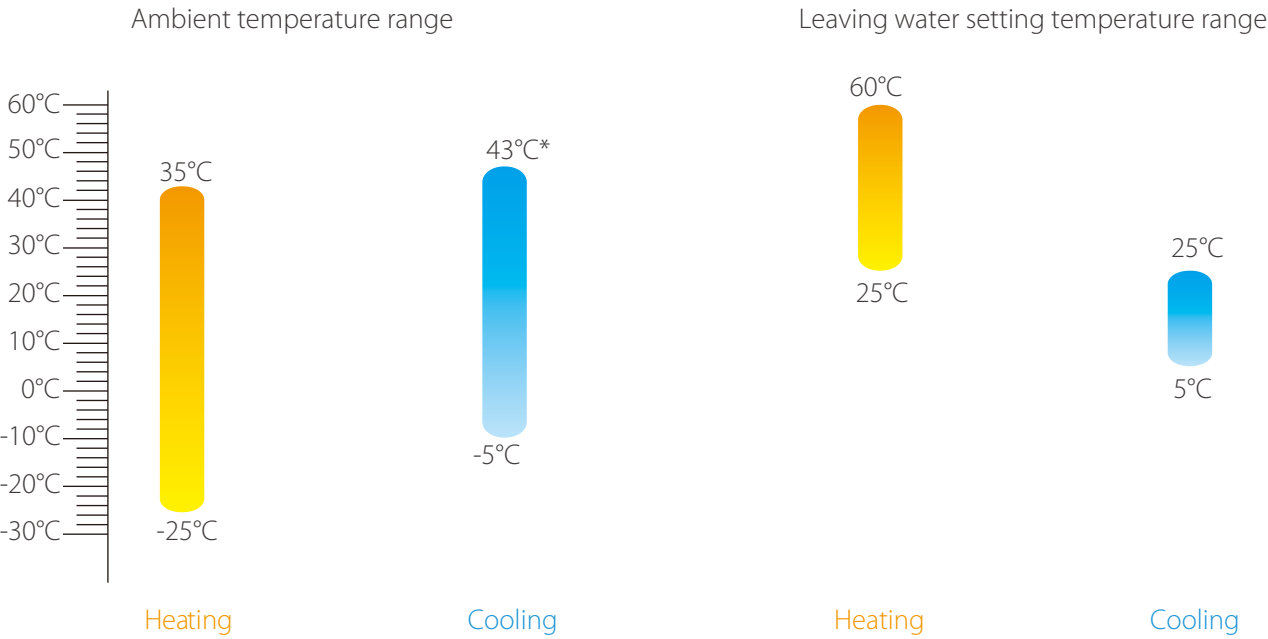
Water tank



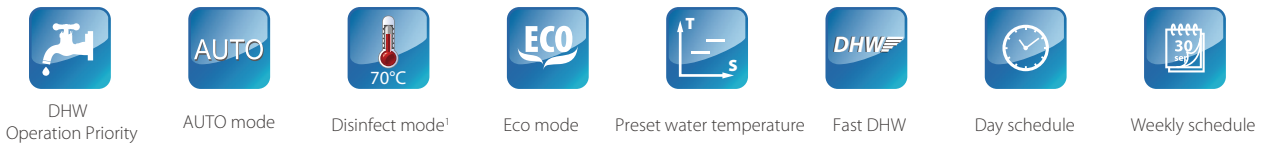
Floor heating loop



Wide operation range



Mlultiple function



Note:
 1. Only when the immersion heater of tank is available can the disinfection water temperature reaches 70°C.

High reliability

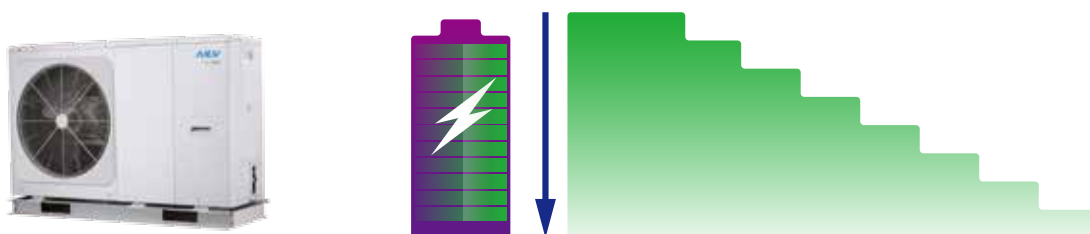
Preheating and drying up for floor

Before floor heating, if a large amount of water remains on the floor, the floor may be warped or even ruptured during floor heating operation. We provide two modes for heating floor, one is preheating mode which is used after the initial installation of floor loops and the other one is drying up mode for the first heating during seasonal heating. Both of the modes are in order to protect the floor. During the process, the water temperature would be increased gradually.



Power limitation function

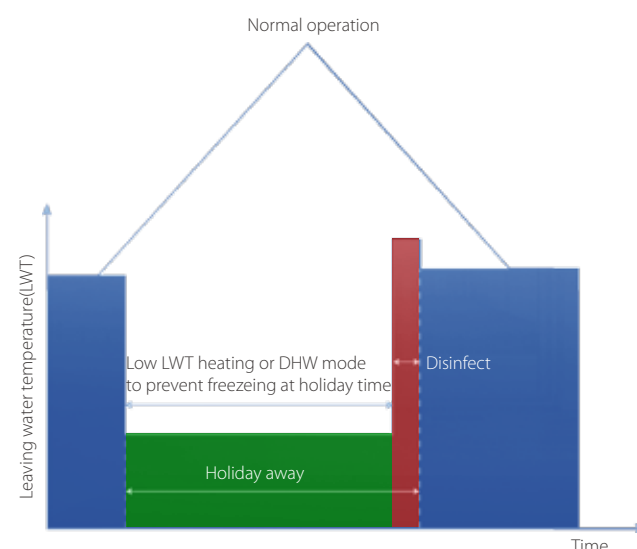
Power limitation function makes the machine suitable for a variety of current supplies. There are 8 configurations for user to choose according to the maximum allowable access current. Only easy setting on the wired controller is needed, the units can suit more application.



Holiday function

Holiday away

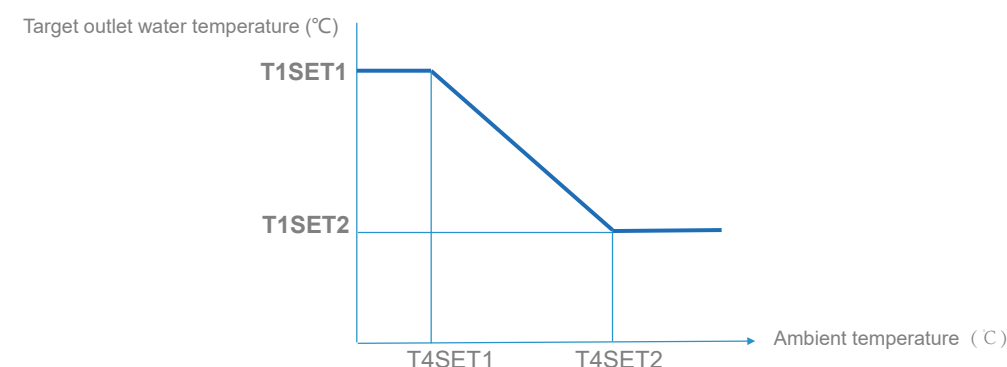
Holiday away function is a mode for improving system reliability and saving energy. Unit operates in heating mode and/or DHW mode with low water temperature to prevent water from freezing in the winter during holiday outside. Beforehand, disinfection mode can be set effective before the end of the holiday to ensure the health of the using water.



Smart control

Weather temperature curve

With the help of Weather temperature curve function, water temperature will automatically change as outside air temperature changes. When outdoor air temperature increases/decreases, the heating load will decrease/increase and water temperature will decrease/increase automatically. When outdoor air temperature decreases/increases, the cooling load will decrease/increase and water temperature will increase/decrease automatically. Totally 32 fixed Weather temperature curve and one custom curve are available, which meets the diversified requirements of temperature.



Smart Grid

Heat pump adjusts the operation according to different electrical signals. Power consumption of the system can be automatically adjusted according to the peak and valley power to reduce the power consumption to the greatest extent.

Cheap electrical signal: DHW mode will be effective to produce hot water

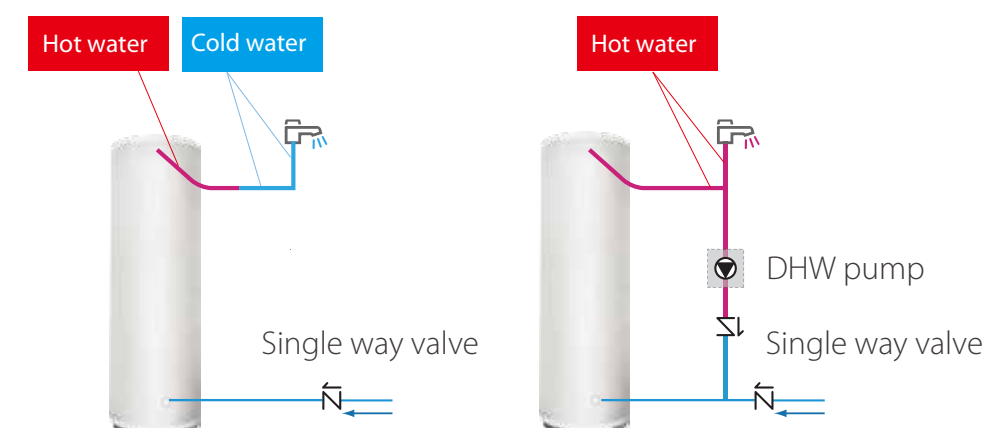
Normal electrical signal: Operates according to users' need.

Expansive electrical signal: Set the maximum operating time for heating mode and cooling mode.



DHW pump function

The DHW pump function is used to return water in the water pipe net to the hot water tank according to set timer. Total 12 timers for one day can be set, which allows users to set the DHW pump operation time according to using habit to guarantee using hot water without waiting for a long time.



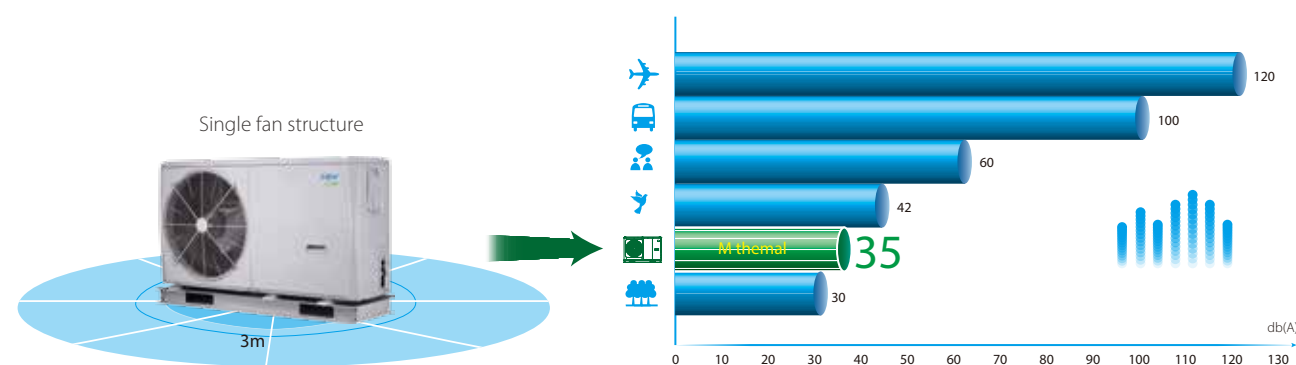
Comfort

Silent mode

Mono 4kW model produces 35dB(A) sound pressure level at 3 meters thanks to multiple optimization design.

Test condition:

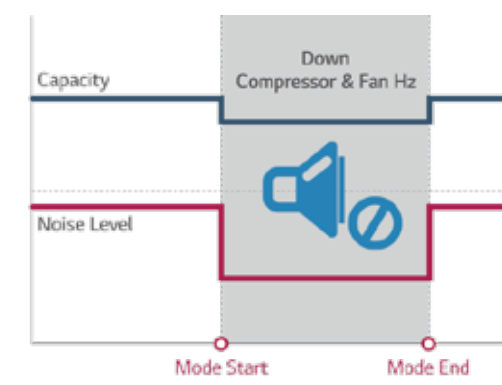
1. Evaporator air in 7°C, 85% R.H., Condenser water in/out 30/35°C
2. Condenser air in 35°C. Evaporator water in/out 23/18°C



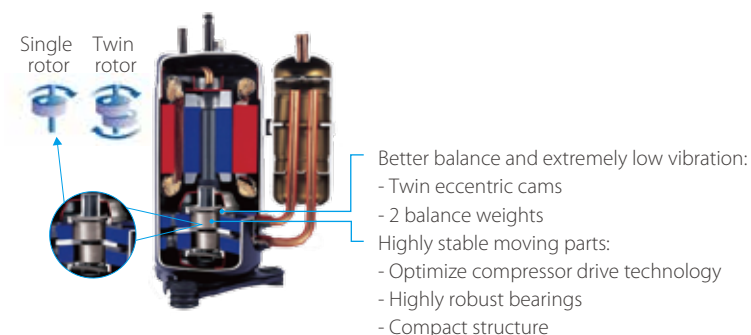
Multiple optimization design makes noise reduction:

Triple noise reduction

Silent mode decrease the sound effectively
Level 2 is more silent than level 1.



Twin rotary compressor



Bionic fan design

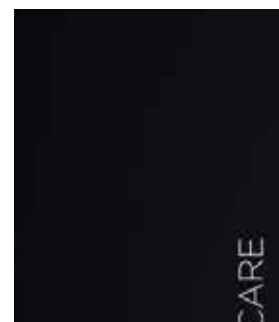
Suction surface concave design
Reduce the size of wake shedding vortex
Improve the flow field on blade surface
Reduce weight and improve efficiency

Leading edge thickening design
Reduce low frequency noise
Effectively improve the blade strength



Trailing edge notch design
Change pressure distribution in the trailing edge of the blade
Reduce the noise of blade wake vortex shedding

Optimized piping distribution



Convenient

USB function

Convenient program upgrade

No need to carry any other heavy equipments but only USB can realize program upgrade of indoor unit and outdoor unit.

Parameter setting transmission between wired controllers

Installer can quickly copy the setting from one controller to another via USB, which save the time of on-site installation.

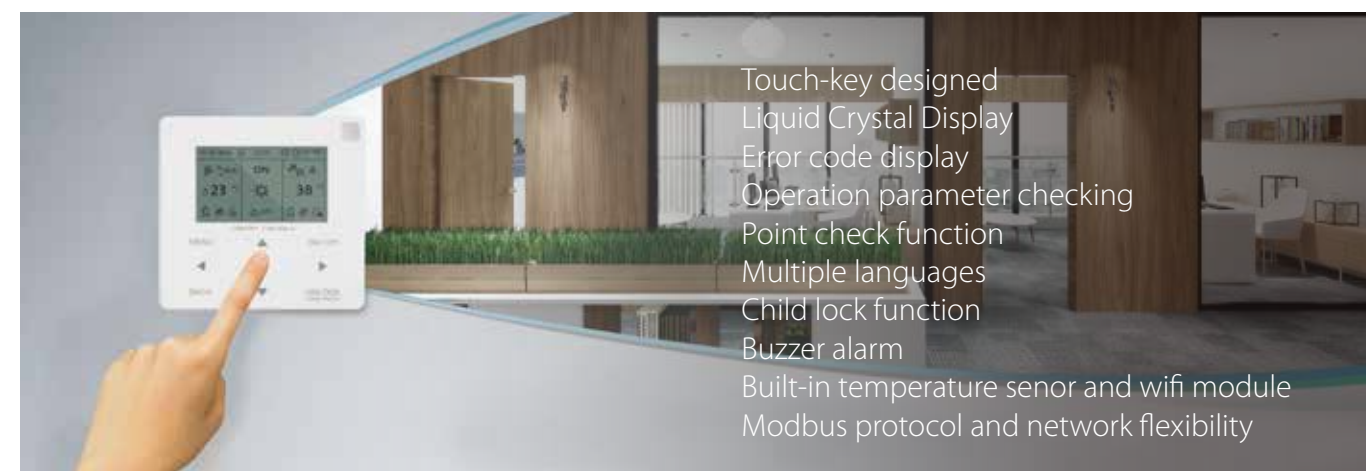


Holiday home

Holiday home function is used to deviate from the normal schedules without having to change them during the holiday at home.



Wifi controller





MSmartLife APP

Easy setting
Double zones control
Monitor system status
Know power consumption
Convenient remote control
Suggestion for energy saving
Schedule function and timer setting

Mode setting

Day timer
Weekly timer

Silent mode
Super silent mode

Holiday away mode
Holiday home mode

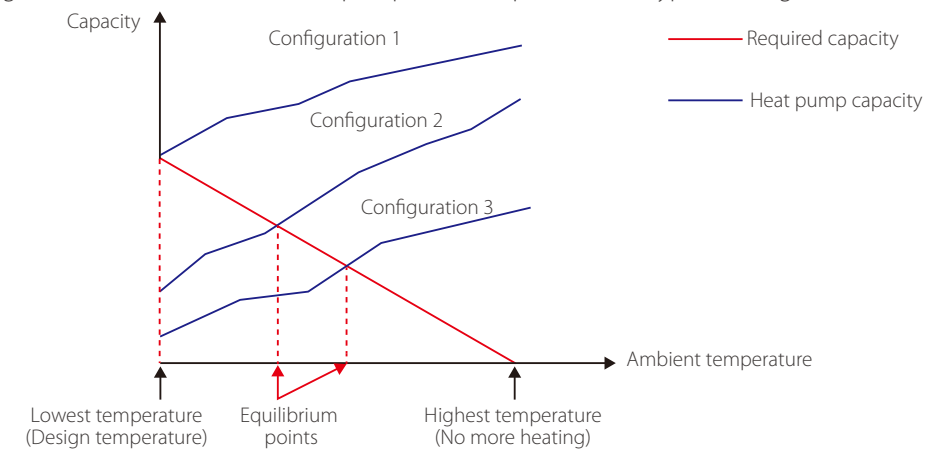
Note: APP interface changes from time to time as APP is updated and may change slightly vary from those in this document.

Typical Applications

System configurations

M thermal system can be configured to run with the electric heater either enabled or disabled and can also be used in conjunction with an auxiliary heat source such as a boiler.

The chosen configuration affects the size of heat pump that is required. Three typical configurations are described below.



Configuration 1: Heat pump only

- ❖ The heat pump covers the required capacity and no extra heating capacity is necessary.
- ❖ Requires selection of larger capacity heat pump and implies higher initial investment.
- ❖ Ideal for new construction in projects where energy efficiency is paramount.

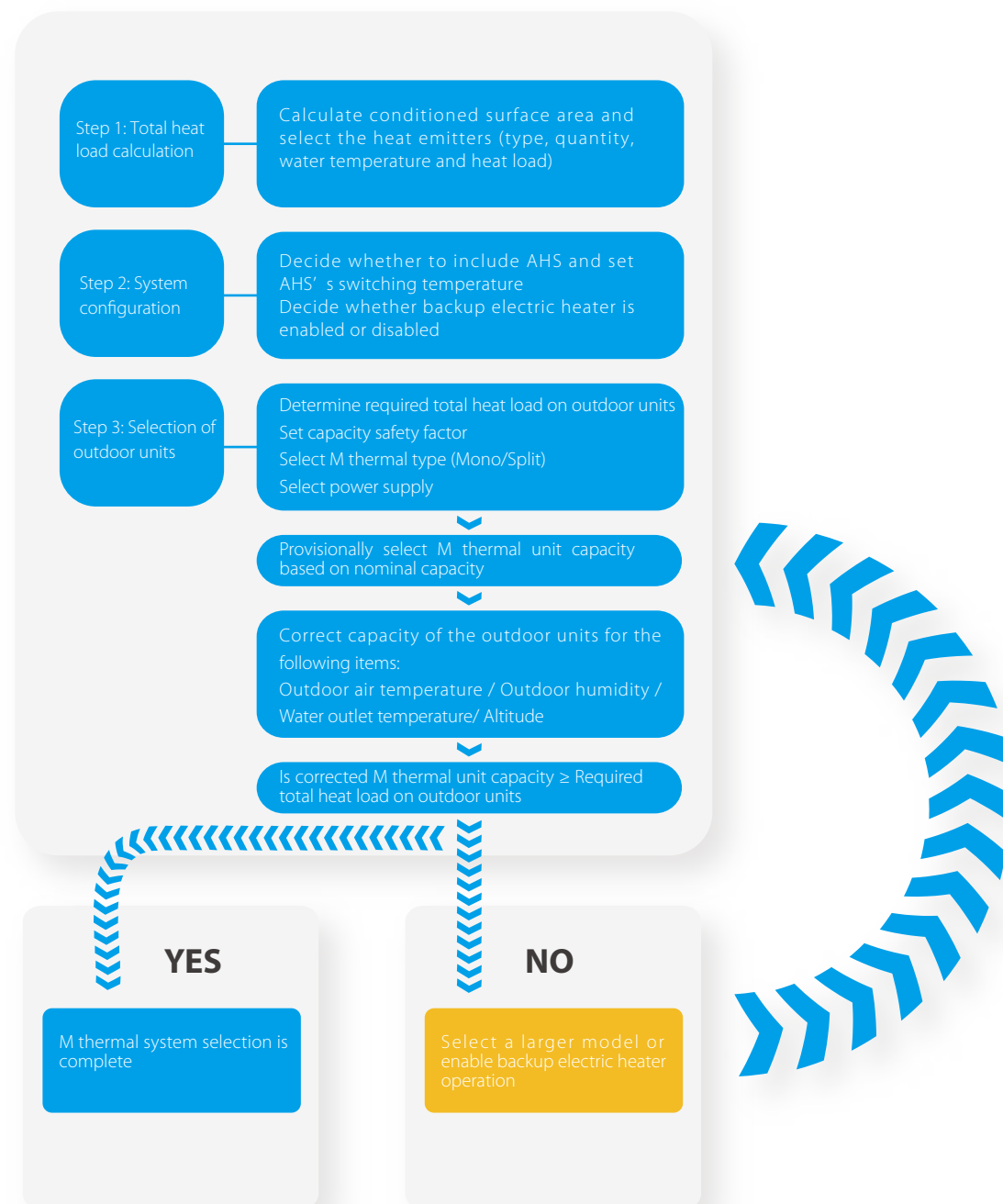
Configuration 2: Heat pump and backup electric heater

- ❖ Heat pump covers the required capacity until the ambient temperature drops below the point at which the heat pump is able to provide sufficient capacity. When the ambient temperature is below this equilibrium point, the backup electric heater supplies the required additional heating capacity.
- ❖ Best balance between initial investment and running costs, results in lowest lifecycle cost.
- ❖ Ideal for new construction.

Configuration 3: Heat pump with auxiliary heat source

- ❖ Heat pump covers the required capacity until the ambient temperature drops below the point at which the heat pump is able to provide sufficient capacity. When the ambient temperature is below this equilibrium point, depending on the system settings, either the auxiliary heat source supplies the required additional heating capacity or the heat pump does not run and the auxiliary heat source covers the required capacity.
- ❖ Enables selection of lower capacity heat pump.
- ❖ Ideal for refurbishments and upgrades.

Selection Procedure



Leaving Water Temperature (LWT)

The recommended design LWT ranges for different types of heat emitter are:

- ❖ For floor heating: 30°C to 35°C
- ❖ For fan coil units: 40°C to 45°C
- ❖ For low temperature radiators: 40°C to 50°C

One-stop solution - Heating, cooling and domestic hot water in one system

M thermal is an integrated system that provides space heating and cooling as well as domestic hot water, offering a complete, all-year-round solution which can remove the need for traditional gas or oil boilers, or work together with them. M thermal can be combined with floor heating loops, fan coil units, radiators and domestic water tank. It can also be connected to solar collectors, gas furnace, boiler and other heat sources.



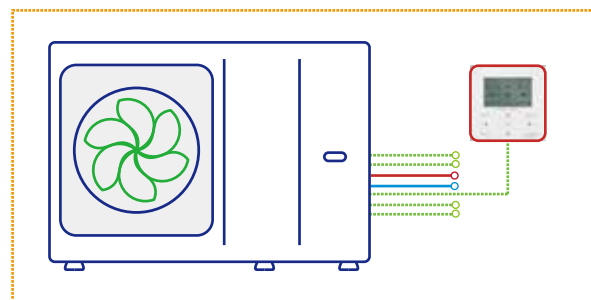
Smart Grid certification indicates M thermal can fully utilize electricity from different sources or different price levels, which means like photovoltaic, and the peak valley of urban electricity supply to satisfy different modes operation, which is benefit for cost saving.



Typical application

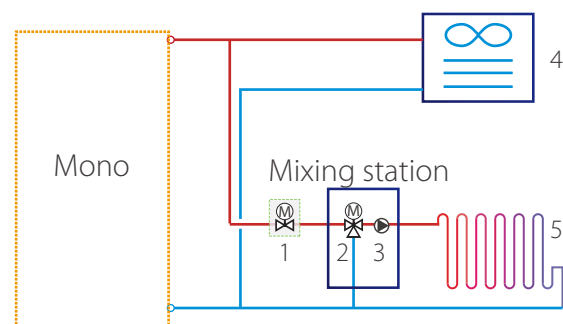
Practical applications are various, including but not limited to the following applications. The application examples given below are for illustration only.

Mono



Heating and cooling

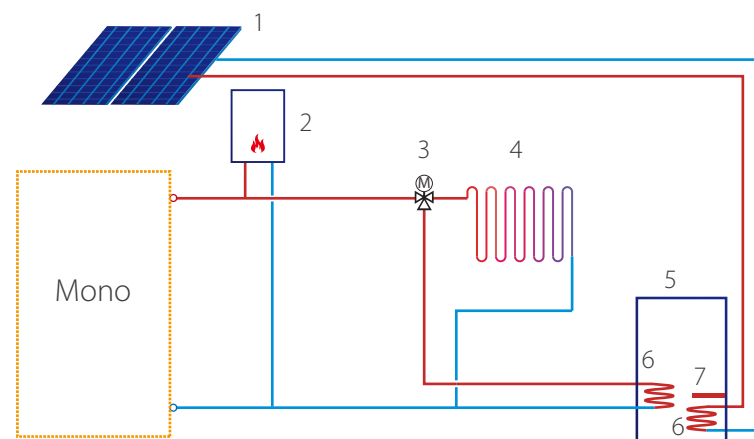
Floor heating loops is used for space heating and fan coil unit is used for both space heating and cooling. For heating mode, floor heating loops and fan coil unit require different operating water temperature. To achieve these two temperature, a mixing station(field supplied) which consists of 3-way valve and water pump is used to adapt the water temperature according to requirements of the floor heating loops. The mixing station is controlled by the unit. For cooling mode, 2-way valve is used to prevent cool water from entering floor heating loops then result in condensation during cooling.



- Notes:
1. 2-way valve(field supplied)
 2. 3-way valve(field supplied)
 3. Water pump(field supplied)
 4. Fan coil unit(MDV can supply)
 5. Floor heating loop(field supplied)

Heating, DHW and hybrid heat source

Backup electric heater(customized)* and AHS provide additional heating to raise the water temperature for unit outlet temperature. TBH and solar system provide additional heating to raise the domestic hot water temperature. 3-way valve is used to switch between heating mode and DHW mode.



- Notes:
1. Solar panel(field supplied)
 2. AHS: Additional heating source(field supplied)
 3. 3-way valve(field supplied)
 4. Floor heating loop(field supplied)
 5. Water tank(field supplied)
 6. Heat exchanger coil(field supplied)
 7. TBH: Tank booster heater(field supplied)

* For Split model, backup electric heater can be installed in the hydraulic box.
For Mono 4~16kW models, backup electric heater can be installed in the unit.

Double zones control

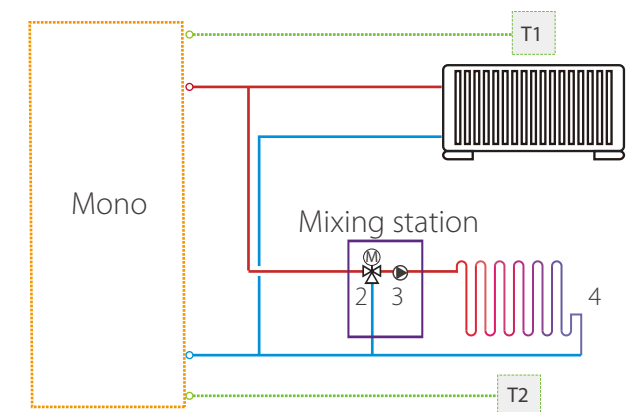
Double zones control is only available for heating mode. It can control different areas to reach different temperature to meet various needs of daily use.

1. Using wired controller only

Wired controller sets the mode, temperature and on/off. Zone 1 is controlled base on the leaving water temperature. Zone 2 is controlled base on the leaving water temperature or built-in sensor integrated in the wired controller.

2. Using wired controller and thermostat

Wired controller sets the mode and water temperature. Both Zone 1 and Zone 2 are controlled by thermostat.

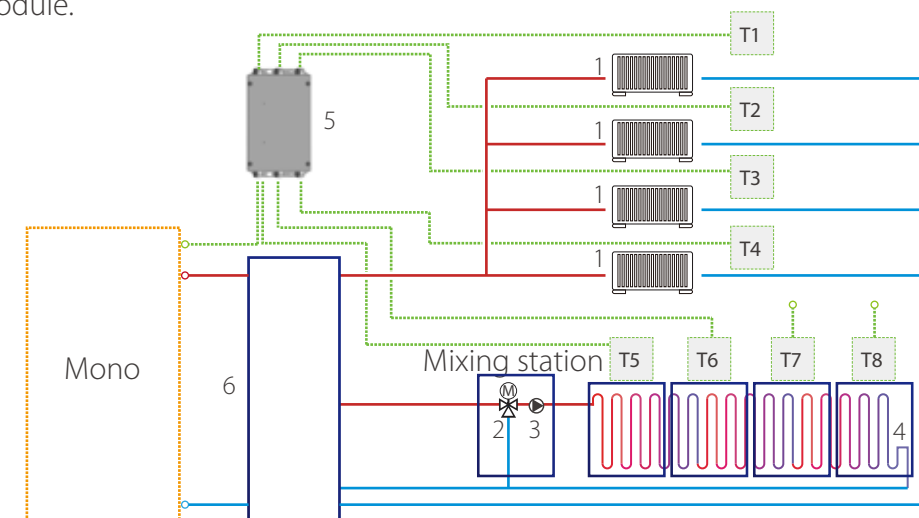


- Notes:
1. Radiator(field supplied)
 2. 3-way valve(field supplied)
 3. Water pump(field supplied)
 4. Floor heating loop(field supplied)

Abbreviation
T: Room thermostat(field supplied)

Multiple rooms control(customized)

Maximum 6 room thermostats is available to be connected with M-kit and 2 thermostats are connected to hydraulic box, which realizes maximum 8 rooms can be controlled. M-kit is connected to the hydraulic module.

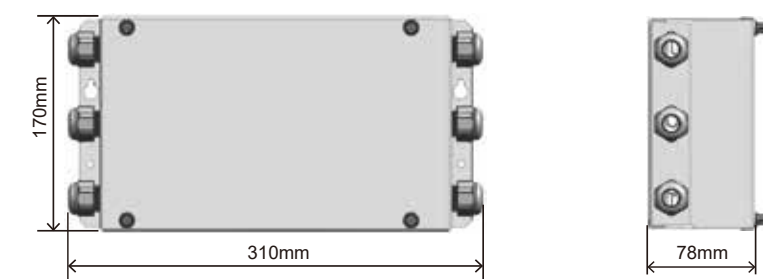


- Notes:
1. Radiator(field supplied)
 2. 3-way valve(field supplied)
 3. Water pump(field supplied)
 4. Floor heating loop
 5. M-kit(customized)
 6. Balance tank(field supplied)

Abbreviation
T: Room thermostat(field supplied)

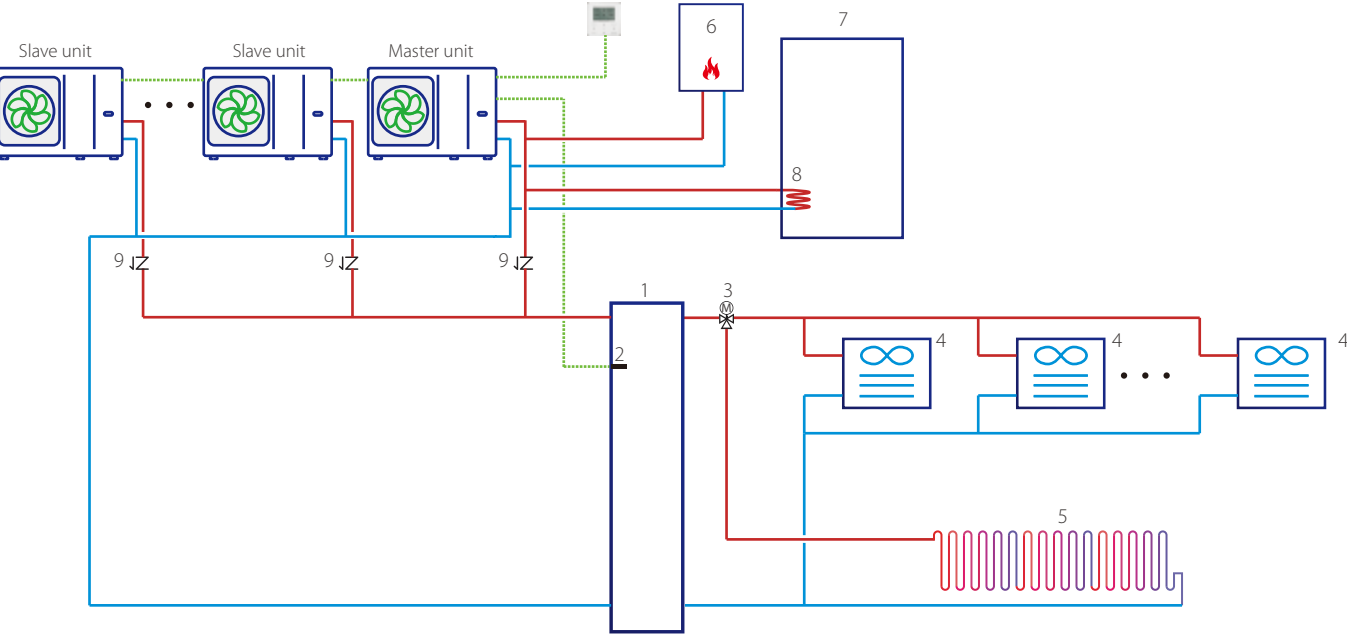
M-kit

Wall-mounted
Simple structure
Mini size
Flexible installation
Connect up to maximum 6 thermostats



Cascade system*

Cascade system design is perfect when an extension of capacity becomes required as the building cooling/heating demand evolves. Maximum 6 units can be controlled in group with one controller. Balance tank temperature control makes water temperature more accurate. Water tank can only be connected to the master unit water circuit through a three-way valve, and controlled by the master unit. AHS can only be connected to the master waterway and controlled by the master unit.



- Notes:
- 1. Balance tank(field supplied)
 - 2. Balance tank temperature sensor(MDV can supply)
 - 3. 3-way valve(field supplied)
 - 4. Fan coil unit(MDV can supply)
 - 5. Floor heating loop(field supplied)
 - 6.AHS: Additional heating source(field supplied)
 - 7.Water tank(field supplied)
 - 8.Heat exchanger coil(field supplied)
 - 9.Single way valve

* 1. 4~16kW modes can only combine with each other to reach a larger system capacity from 4~96kW.
2. 18~30kW models can only combine with each other to reach a larger system capacity from 18~180kW.

A Series Mono



Outdoor unit model MHC-			V4W/ D2N8-B	V6W/ D2N8-B	V8W/ D2N8-B	V10W/ D2N8-B	V12W/ D2N8-B	V14W/ D2N8-B	V16W/ D2N8-B	V12W/ D2RN8-B	V14W/ D2RN8-B	V16W/ D2RN8-B
Power supply		V/Ph/Hz	220-240/1/50							380-415/3/50		
Heating ¹	Capacity	kW	4.20	6.35	8.40	10.0	12.1	14.5	15.9	12.1	14.5	15.9
	Rated input	kW	0.82	1.28	1.63	2.02	2.44	3.15	3.53	2.44	3.15	3.53
	COP		5.10	4.95	5.15	4.95	4.95	4.60	4.50	4.95	4.60	4.50
Heating ²	Capacity	kW	4.30	6.30	8.10	10.0	12.3	14.1	16.0	12.3	14.1	16.0
	Rated input	kW	1.13	1.70	2.10	2.67	3.32	3.92	4.57	3.32	3.92	4.57
	COP		3.80	3.70	3.85	3.75	3.70	3.60	3.50	3.70	3.60	3.50
Heating ³	Capacity	kW	4.40	6.00	7.50	9.50	11.9	13.8	16.0	11.9	13.8	16.0
	Rated input	kW	1.49	2.03	2.36	3.06	3.90	4.68	5.61	3.90	4.68	5.61
	COP		2.95	2.95	3.18	3.10	3.05	2.95	2.85	3.05	2.95	2.85
Cooling ⁴	Capacity	kW	4.50	6.50	8.30	9.90	12.00	13.50	14.90	12.00	13.50	14.90
	Rated input	kW	0.82	1.35	1.64	2.18	3.04	3.75	4.38	3.04	3.75	4.38
	EER		5.50	4.80	5.05	4.55	3.95	3.60	3.40	3.95	3.60	3.40
Cooling ⁵	Capacity	kW	4.70	7.00	7.45	8.20	11.5	12.4	14.0	11.5	12.4	14.0
	Rated input	kW	1.36	2.33	2.22	2.52	4.18	4.96	5.60	4.18	4.96	5.60
	EER		3.45	3.00	3.35	3.25	2.75	2.50	2.50	2.75	2.50	2.50
Seasonal space heating energy efficiency class ⁶	Water outlet at 35°C	class	A+++									
	Water outlet at 55°C	class	A++									
Refrigerant	Type(GWP)		R32(675)									
	Charged volume	kg	1.40		1.40		1.75					
Sound power Level ⁷		dB	55	58	59	60	65	65	68	65	65	68
Net dimension (WxHxD)		mm	1295x792x429			1385x945x526						
Packing dimension (WxHxD)		mm	1375x965x475			1465x1120x560						
Net/Gross weight		kg	98/121		121/148		144/170			160/188		
Water pump	Max. pump head	m	9									
Water piping connection		mm	R1"		R5/4"							
Ambient temperature range	Cooling	°C	-5~43									
	Heating	°C	-25~35									
	DHW	°C	-25~43									
Water outlet temperature range	Cooling	°C	5~25									
	Heating	°C	25~65									
	DHW (tank)	°C	30~60									
Backup E-heater ⁸	Standard mounted	kW	/									
	Optional	kW	3	3	3/9	3/9	3/9	3/9	3/9	3/9	3/9	3/9
	Capacity steps		1	1	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Power supply	3kW 9kW	V/Ph/Hz	220-240/1/50 380-415/3/50								

- Notes:
- 1. Evaporator air in 7°C, 85% R.H., Condenser water in/out 30/35°C
 - 2. Evaporator air in 7°C, 85% R.H., Condenser water in/out 40/45°C
 - 3. Evaporator air in 7°C, 85% R.H., Condenser water in/out 47/55°C
 - 4. Condenser air in 35°C. Evaporator water in/out 23/18°C
 - 5. Condenser air in 35°C. Evaporator water in/out 12/7°C
 - 6. Seasonal space heating energy efficiency class testes in average climate general conditions.
 - 7. Testing standard: EN12102-1.
 - 8. Backup electric heater is built into all models.
For three phase type backup electric heater, 3/6kW can be achieved by changing DIP switch when heat pump is equipped with 9kW. In this case, three phase power supply is needed.
 - 9. Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02:2014.

A Series Mono



Model			MHC-V18W/D2RN8	MHC-V22W/D2RN8	MHC-V26W/D2RN8	MHC-V30W/D2RN8
Power supply		V/Ph/Hz	380-415/3/50			
Heating ¹	Capacity	kW	18.00	22.00	26.00	30.10
	Rated input	kW	3.83	5.00	6.37	7.70
	COP		4.70	4.40	4.08	3.91
Heating ²	Capacity	kW	18.00	22.00	26.00	30.00
	Rated input	kW	5.14	6.47	8.39	10.35
	COP		3.50	3.40	3.10	2.90
Heating ³	Capacity	kW	18.00	22.00	26.00	30.00
	Rated input	kW	6.55	8.30	10.61	13.04
	COP		2.75	2.65	2.45	2.30
Cooling ⁴	Capacity	kW	18.50	23.00	27.00	31.00
	Rated input	kW	3.90	5.00	6.28	7.75
	EER		4.75	4.60	4.30	4.00
Cooling ⁵	Capacity	kW	17.00	21.00	26.00	29.50
	Rated input	kW	5.57	7.12	9.63	11.57
	EER		3.05	2.95	2.70	2.55
Seasonal space heating energy efficiency class ⁶	Water outlet at 35°C	class	A+++	A+++	A+++	A++
	Water outlet at 55°C	class	A++	A++	A+	A+
Refrigerant	Type(GWP)		R32(675)			
	Charged volume		5.0			
Sound power level ⁷		dB	71	73	75	77
Net dimension (WxHxD)		mm	1129x1558x440			
Packing dimension (WxHxD)		mm	1220x1735x565			
Net/Gross weight			177/206			
Water pump	Max. pump head	m	12.0	12.0	12.0	12.0
Water piping connection		inch	1-1/4" BSP	1-1/4" BSP	1-1/4" BSP	1-1/4" BSP
Ambient temperature range	Cooling	°C	-5-46			
	Heating	°C	-25-35			
	DHW	°C	-25-43			
Water outlet temperature range	Cooling	°C	5-25			
	Heating	°C	25-60			
	DHW	°C	30-60			

Notes:
1.Evaporator air in 7°C, 85% R.H., Condenser water in/out 30/35°C.
2.Evaporator air in 7°C, 85% R.H., Condenser water in/out 40/45°C.
3.Evaporator air in 7°C, 85% R.H., Condenser water in/out 47/55°C.
4.Condenser air in 35°C. Evaporator water in/out23/18°C.
5.Condenser air in 35°C. Evaporator water in/out 12/7°C.
6. Seasonal space heating energy efficiency class testes in average climate general.
7.Testing standard: EN12102-1.
8. Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02:2014.

Commercial Heat Pump Water Heater



Product lineup

Model	120	200	420	800
Appearance Series				
220~240V-1Ph-50Hz	●			
380~415V-3Ph-50Hz		●	●	●

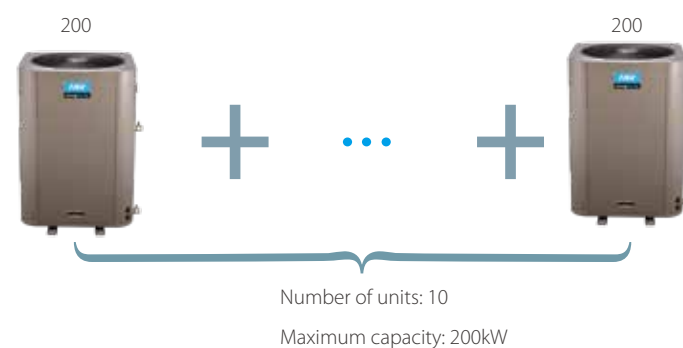
Compatible with different kinds of terminals



Features

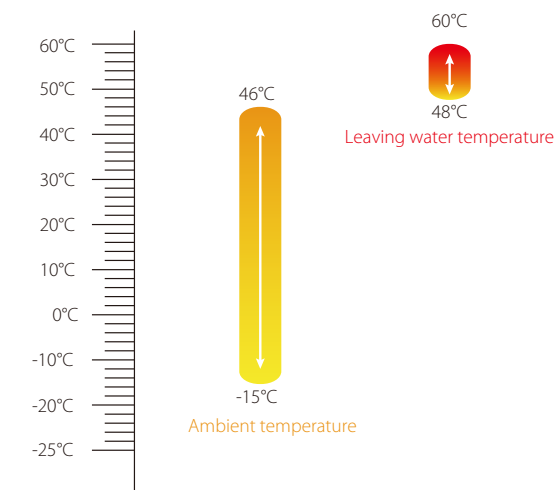
Wide application range

- 4 basic models with multiple power supply options;
- Free modular combination;
- Maximum 10 units combination(for 120/200 model) and controlled by one controller;
- Maximum 200kW combination capacity.



- ❖ Wide operation ambient temperature range.

Operates stably under extreme conditions, ranging from -15°C to 46°C.

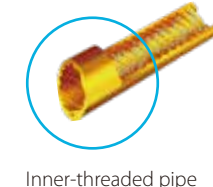


High performance heat exchanger

Enlarge heat-exchanging area

Enhance heat transfer

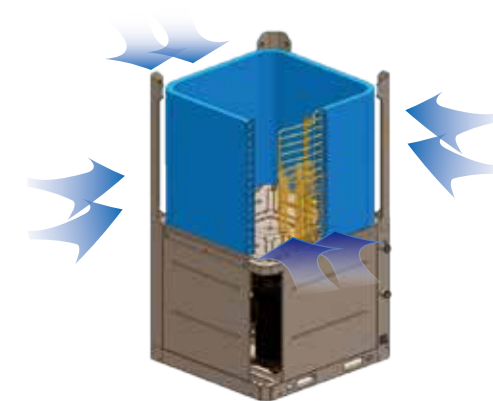
High efficiency



Fins and inner-threaded copper pipes enlarge the heat-exchanging area and enhance heat exchange performance.

Self-lubricating light golden hydrophilic aluminum foil with better hydrophilicity and less lubricating oil, which greatly enhances anti-corrosion performance and assures a longer coil service life.

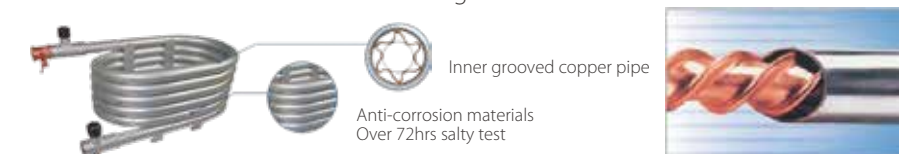
- Standard products:
200h of neutral salt mist
- Heavy anti-corrosion products:
1000h of neutral salt mist
140h of acid salt mist



"G shape" air side heat exchanger(for 420 model);
360° air intake;
Increase the heat exchanging are
Efficiently enhance heat exchange efficiency

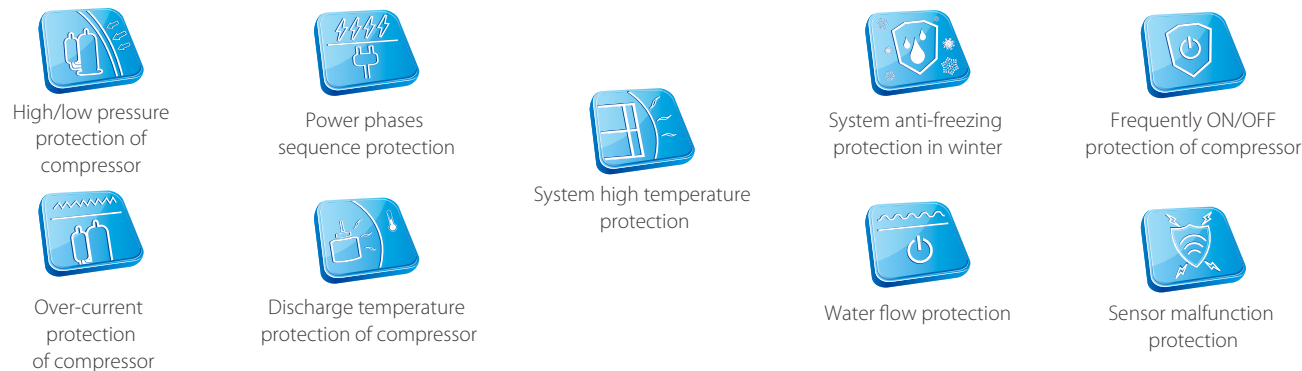
- High efficiency tube-in-tube heat exchanger

Inner grooved copper pipe, increase area of heat exchanger, improve efficient.
Anti-corrosion shell increases the useful life of heat exchanger.



Advanced technology

- Direct heating type
- Unique defrosting flow path.
Air side reserved special defrosting flow path, when the system is defrosting, the four-way valve is reversing, the system will absorb energy from special defrosting flow path, the defrosting progress will have no impact on water temperature.
- Electric water flow valve supplies hot water at a stable temperature and expands the life of compressor.
- Optimized fan blade edge by CFD programs with analyzing air pressure distribution.
- Reliable protections
Multiple protections are adopted to ensure system stable running.



Easy control

Wired controller



Model	KJR-51/BMKE-A
Appearance	
Main Functions	<ul style="list-style-type: none"> Touch key operation Parameter setting an LCD display Real-time clock function Multiple timer Power-off memory function Modbus(Customized)
Max. connection PCBs	16

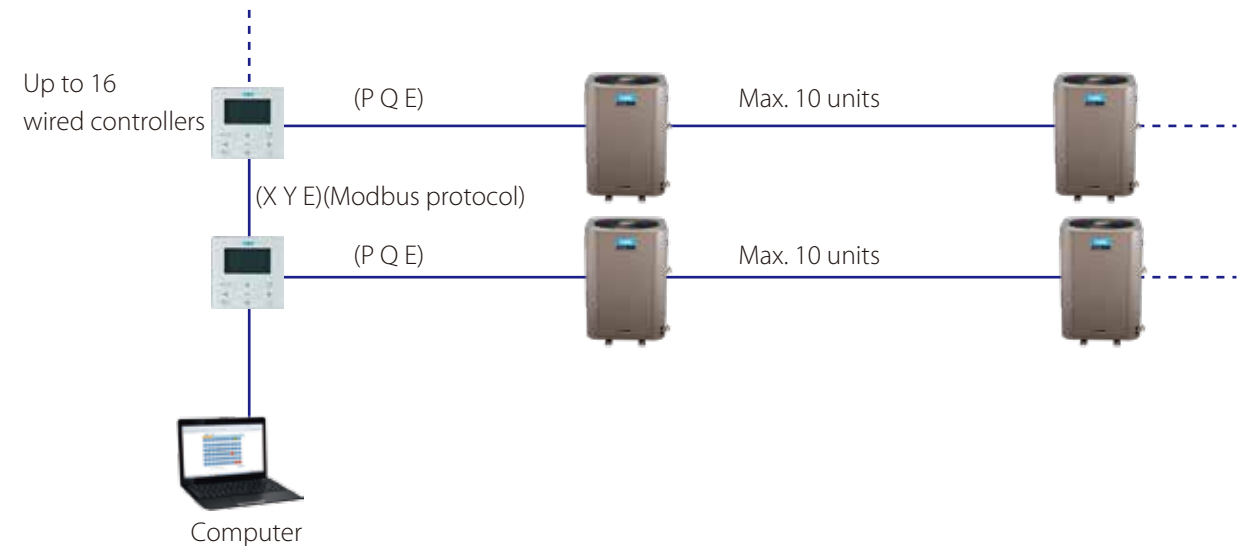
Group control

Group control for up to maximum 10 units(for 120/200 models) with one wired controller.



Modbus function

Modbus is an open protocol that is widely used, especially in BMS building control systems. Modbus function can be customized by adding X, Y, E ports on wired controller. It can connect Max. 16 wired controllers and each controller can control Max. 10 units.



Remote control functions for convenient operation.

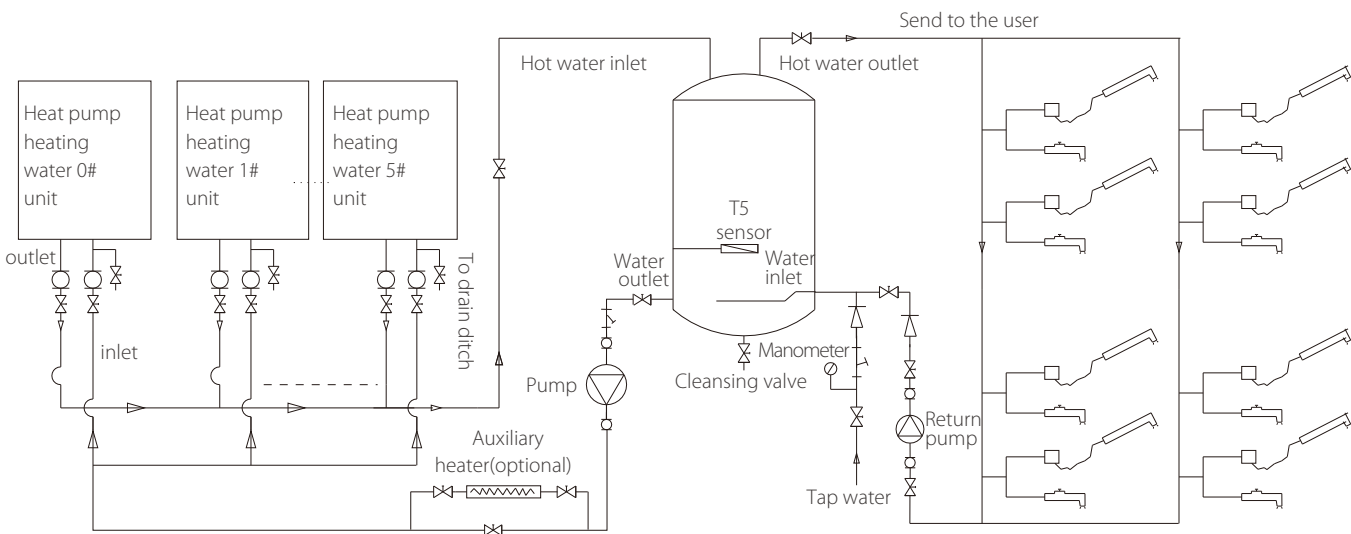
There are ON/OFF, Alarm terminals ports on PCB, connect switches from these terminal ports and remote control functions can be easily realized.



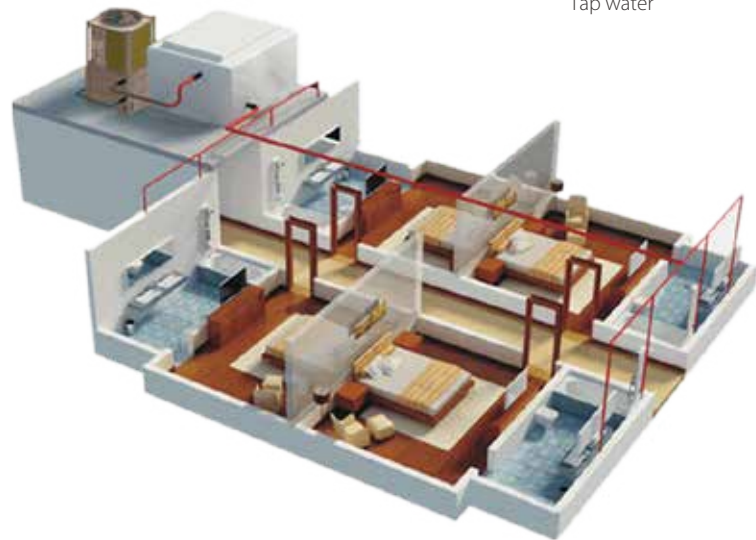
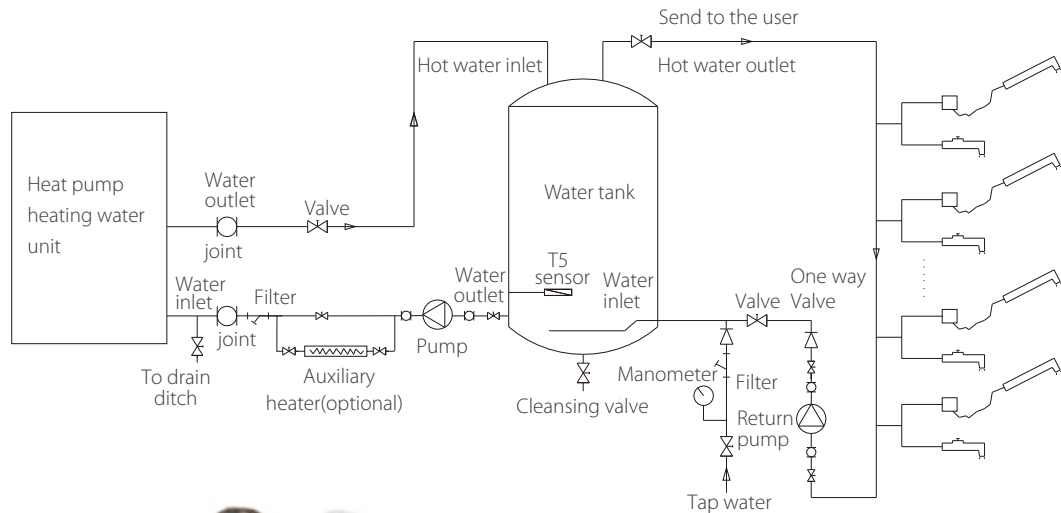
Note: When use the remote control function, the wired controller will be invalid for OFF and mode selection.

Simple refrigerating system diagram

Parallel connected heat pump system



Single connected heat pump system



Specifications

Model		RSJ-120/ZN1-540V1		RSJ-200/SZN1-540V1	
Power supply		V/Ph/Hz	220-240/1/50	380-415/3 / 50	
Running ambient temp		°C	-15~46		-15~46
Outwater Temp		°C	Default 56°C, 48°C~60°C		
Water Heating	Capacity	kW	11.8		20.4
	Input	kW	2.95		5.23
	COP		4.00		3.90
Unit dimension (WxHxD)		mm	790x1100x810		790x1100x810
Packing dimension (WxHxD)		mm	860x1220x885		860x1220x885
Net/Gross weight		kg	125/145		157/172
Outdoor noise level		dB(A)	59		63
Max. combination quantity		Pieces	6		6
Compressor	Type		Scroll		Scroll
	Quantity	Pieces	1		1
Fan motor	Type		AC motor		AC motor
	Quantity	Pieces	1		1
Air side heat exchanger		Type	Fin-coil		Fin-coil
Warer side heat exchanger		Type	Tube-in-tube		Tube-in-tube
Refrigerant	Refrigerant Type /Quantity	kg	R410A/1.55		R410A/2.9
	Throttle type		Electric expansion valve		
Water pipe	water inlet pipe	mm	DN25		DN25
	water outlet pipe	mm	DN25		DN25
Hot Water Yield ³		m ³ /h	0.25		0.45

Remark:
1. The test conditions: outdoor temperature 20/15°C(DB/WB), inlet water temperature 15°C, outlet water temperature 55°C.
2. The specifications may be changed for product improvement, please refer to the nameplate.
3. The value is calculated based on the capability value and capability test condition.

Specifications

Model			RSJ-420/SZN1-H	RSJ-800/SZN1-H
Power supply		V/Ph/Hz	380-415/3 / 50	380-415/3 / 50
Running ambient temp		°C	-15~46	-15~46
Outwater Temp		°C	Default 56°C, 48°C~60°C	
Water Heating	Capacity	kW	39.0	80.0
	Input	kW	9.65	20.00
	COP		4.04	4.00
Unit dimension (W×H×D)		mm	1015×1775×1026	1995×1770×1025
Packing dimension (W×H×D)		mm	1070×1900×1030	2080×1895×1120
Net/Gross weight		kg	323/343	599/627
Outdoor noise level		dB(A)	66	68
Max. combination quantity		Pieces	4	2
Compressor	Type		Scroll	Scroll
	Quantity	Pieces	1	2
Fan motor	Type		AC motor	AC motor
	Quantity	Pieces	1	2
Air side heat exchanger	Type		Fin-coil	Fin-coil
Warer side heat exchanger	Type		Tube-in-tube	Tube-in-tube
Refrigerant	Refrigerant Type /Quantity	kg	R410A/4.5	R410A/2×4.4
	Throttle type		Electric expansion valve	
Water pipe	water inlet pipe	mm	DN32	DN50
	water outlet pipe	mm	DN32	DN50
Hot Water Yield ³		m ³ /h	0.85	1.72

Remark:
1. The test conditions: outdoor temperature 20/15°C(DB/WB), inlet water temperature 15°C, outlet water temperature 55°C.
2. The specifications may be changed for product improvement, please refer to the nameplate.
3. The value is calculated based on the capability value and capability test condition.

Swimming pool application



Features

- R410A refrigerant zero impact on the ozone layer
- Max. water output temperature: 35°C
- Automatic defrosting function
- Automatic start-up and shut-down functions
- Anti-corrosion titanium heat exchanger increase service life
- Convenient remote On/Off control
- 3 minute protection for compressor



Anti-corrosion titanium heat exchanger

Wired Controller

- Mechanical button
- LCD displays operation parameters
- Indicator light
- Heating, cooling and pump mode
- Shut-off memory function for saving the current operate status automatically



KJRH-90B/E

Specifications

Model			LRSJ-80/NYN1-A1	LRSJ-120/NYN1-A1	LRSJ-140/NYN1-A1
Power supply			220-240/1/50		
Heating	Capacity	kW	8.00	11.70	13.60
	Input	kW	1.518	2.350	2.550
	COP		5.27	4.98	5.33
	Ambient temperature	°C	-7~38	-7~38	-7~38
	Output water temperature	°C	Default 28°C, 20°C~35°C		
Cooling	Capacity	kW	5.80	8.25	10.35
	Input	kW	1.50	2.50	2.90
	EER		3.87	3.30	3.57
	Ambient temperature	°C	15~43	15~43	15~43
	Output water temperature	°C	Default 28°C, 10°C~30°C		
Dimension (WxHxD)		mm	1,015×705×385	1,050×855×315	1,050×855×315
Packing (WxHxD)		mm	1,095×840×445	1,160×980×410	1,160×980×410
Net/Gross weight		kg	66/75	75/85	75/85
Outdoor noise level		dB(A)	58	58	58
Compressor	Type		Rotary	Rotary	Rotary
Fan motor	Type		AC motor	AC motor	AC motor
Water side heat exchanger	Type		Titanium-tube	Titanium-tube	Titanium-tube
Air side heat exchanger	Type		Fin-coil	Fin-coil	Fin-coil
Refrigerant	Type		R410A	R410A	R410A
	Quantity	kg	1.25	1.6	1.85
Throttle type			Capillary	Capillary	Capillary
Water pipeline	Water inlet pipe	mm	Φ50	Φ50	Φ50
	Water outlet pipe	mm	Φ50	Φ50	Φ50
	Drainage pipe	mm	Φ25	Φ25	Φ25
Applicable range		m³	50	60~85	75~100

Notes:
 1. Outdoor temperature 24/19°C(DB/WB); Inlet water temperature 27°C, outlet water temperature 29°C
 2. Outdoor temperature 35/24°C(DB/WB); Inlet water temperature 27°C
 3. The water flow volumn is same in both cooling and heating mode.

Large Tonnage Chiller

Water Cooled Centrifugal Chiller



250~1300RT

Inverter Direct-drive Centrifugal Chiller

- Variable frequency drive motor
- Two stage compressing with horizontally back-to-back compressor
- Full falling film evaporating technology
- Low noise and compact size



500~3000RT

Gear-drive Centrifugal Chiller

- Wide capacity range, high voltage/low voltage
- Aerodynamic technology
- Full falling film evaporating technology
- Prospective control technology
- District cooling application



170~900RT

Magnetic Bearing Centrifugal Chiller

- Oil-free and higher efficiency
- Aerodynamic technology
- Permanent magnet synchronous motor technology
- Bearing control technology
- Self-generation control technology
- Micro-channel refrigerant-cooled VFD technology

Specifications - Inverter Direct-drive Centrifugal Chiller

Model		CCWF	250EV	300EV	350EV	400EV	450EV	500EV	550EV
Cooling capacity	RT		250.0	300.0	350.0	400.0	450.0	500.0	550.0
	kW		879.0	1055	1231	1406	1582	1758	1934
	10 ⁵ kcal/h		75.59	90.71	105.8	121.0	136.1	151.2	166.3
Power input	kW		141.2	165.2	193.0	223.9	247.3	276.6	310.1
COP	W/W		6.224	6.385	6.376	6.282	6.399	6.356	6.237
IPLV	W/W		9.341	9.591	9.737	10.46	10.61	10.59	10.69
Motor configuration power	kW		200.0	200.0	240.0	280.0	280.0	315.0	350.0
Rated current	A		230.7	269.9	315.3	365.7	403.9	451.9	506.6
Max. operating current	A		262.4	305.4	358.9	416.1	457.5	507.9	565.8
Locked-rotor current	A		1523	1523	1883	2603	2603	2985	3338
Evaporator	Water flow	m ³ /h	135.8	163.0	190.1	217.3	244.4	271.6	298.8
	Pressure drop	kPa	43.3	43.2	43.6	42.9	43.2	42.4	44.1
	Water pipe connection	mm	DN200	DN200	DN200	DN250	DN250	DN250	DN250
Condenser	Water flow	m ³ /h	169.7	202.9	236.8	271.1	304.2	338.3	373.1
	Pressure drop	kPa	44.7	45.7	45.9	44.8	44.6	46.5	46.8
	Water pipe connection	mm	DN200	DN200	DN200	DN250	DN250	DN250	DN250
Unit dimensions	Length	mm	3650	3650	3650	3650	3650	3650	3650
	Width	mm	1940	1940	1940	2000	2000	2000	2000
	Height	mm	2150	2150	2150	2150	2150	2150	2150
Shipping weight	kg		4650	4800	4950	5650	5800	5950	6100
Running weight	kg		5580	5780	5980	6730	6930	7130	7330

Note:
 1. Performance and efficiency are based on AHRI 550/590-2018.
 Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h-ft²-°F/Btu (0.0176m². °C/kW);
 Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h-ft²-°F/Btu (0.0440m². °C/kW).
 2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
 3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
 4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Inverter Direct-drive Centrifugal Chiller

Model		CCWF	600EV	650EV	700EV	750EV	800EV	850EV
Cooling capacity	RT		600.0	650.0	700.0	750.0	800.0	850.0
	kW		2110	2285	2461	2637	2813	2989
	10 ³ kcal/h		181.4	196.6	211.7	226.8	241.9	257.0
Power input	kW		331.3	357.2	378.0	407.5	442.1	460.7
COP	W/W		6.367	6.397	6.511	6.471	6.362	6.488
IPLV	W/W		9.315	9.628	9.991	10.16	10.19	10.15
Motor configuration power	kW		400	400	450	450	500	560
Rated current	A		541.3	583.6	617.6	665.7	722.3	752.6
Max. operating current	A		613.1	658.9	696.0	745.8	801.6	850.4
Locked-rotor current	A		3281	3281	3905	3905	4864	6495
Evaporator	Water flow	m ³ /h	325.9	353.1	380.3	407.4	434.6	461.7
	Pressure drop	kPa	53.8	52.2	58.6	56.1	60.1	56.2
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300
Condenser	Water flow	m ³ /h	404.3	437.9	470.6	504.7	539.7	572.2
	Pressure drop	kPa	51.4	54.5	51.0	55.1	54.7	55.2
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300
Unit dimensions	Length	mm	4700	4700	4700	4700	4700	4750
	Width	mm	1950	1950	1950	1950	1950	2150
	Height	mm	2750	2750	2750	2750	2750	2900
Shipping weight	kg		9060	9120	9330	9410	9490	10665
Running weight	kg		10700	10790	11080	11210	11330	12885

Model		CCWF	900EV	950EV	1000EV	1100EV	1200EV	1300EV
Cooling capacity	RT		900.0	950.0	1000	1100	1200	1300
	kW		3164	3340	3516	3868	4219	4571
	10 ³ kcal/h		272.2	287.3	302.4	332.6	362.9	393.1
Power input	kW		482.2	513.3	538.8	591.8	641.7	698.0
COP	W/W		6.563	6.507	6.525	6.535	6.575	6.549
IPLV	W/W		10.37	10.39	10.55	10.35	10.57	10.69
Motor configuration power	kW		560	560	630	700	700	800
Rated current	A		787.7	838.6	880.3	966.9	1048	1140
Max. operating current	A		888.6	945.5	991.7	1089	1181	1282
Locked-rotor current	A		6495	6495	6246	6638	6638	6955
Evaporator	Water flow	m ³ /h	488.9	516.1	543.2	597.5	651.9	706.2
	Pressure drop	kPa	62.4	54.5	58.4	57.0	57.0	56.0
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300
Condenser	Water flow	m ³ /h	605.2	639.8	673.3	740.7	807.5	875.1
	Pressure drop	kPa	58.9	53.4	55.6	52.6	53.4	58.0
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300
Unit dimensions	Length	mm	4750	4750	4750	4800	4800	4800
	Width	mm	2150	2150	2150	2260	2260	2260
	Height	mm	2900	2900	2900	3050	3050	3050
Shipping weight	kg		10690	11050	11050	13320	13520	13650
Running weight	kg		12915	13450	13450	16180	16495	16710

Note:
1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h·ft²·°F/Btu (0.0176m²·°C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h·ft²·°F/Btu (0.0440m²·°C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Gear-drive Centrifugal Chiller - High Efficiency Series

Model		CCWE	500H	550H	600H	650H	700H	750H	800H
Cooling capacity	RT		500	550	600	650	700	750	800
	kW		1758	1934	2110	2285	2461	2637	2813
	10 ³ kcal/h		151.2	166.3	181.4	196.6	211.7	226.8	241.9
Power input	kW		286.2	314.8	343.6	372.0	401.7	430.0	458.7
COP	W/W		6.143	6.142	6.140	6.144	6.126	6.132	6.132
IPLV	W/W		6.718	6.698	6.706	6.739	6.813	7.153	7.092
Motor configuration power	kW		490.0	490.0	490.0	490.0	490.0	490.0	560.0
Rated current	A		496.9	546.7	596.6	645.9	697.6	746.7	796.4
Max. operating current	A		561.1	619.0	673.9	724.6	784.1	839.1	891.1
Locked-rotor current	A		4700	4700	4700	4700	4700	4700	5400
Evaporator	Water flow	m ³ /h	271.6	298.8	325.9	353.1	380.3	407.4	434.6
	Pressure drop	kPa	35.8	42.5	39.1	44.7	54.0	55.8	55.9
	Water pipe connection	mm	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Condenser	Water flow	m ³ /h	337.5	371.5	405.4	439.2	473.2	507.0	541.0
	Pressure drop	kPa	52.6	62.6	55.4	64.1	66.2	65.4	64.9
	Water pipe connection	mm	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Unit dimensions	Length	mm	4690	4690	4690	4690	4690	4690	4690
	Width	mm	1800	1800	1800	1800	1950	1950	1950
	Height	mm	2410	2410	2410	2410	2410	2410	2410
Shipping weight	kg		10080	10080	10240	10240	11140	11270	11355
Running weight	kg		12020	12020	12180	12180	13159	13350	13564

Model		CCWE	850H	900H	950H	1000H	1100H	1200H	1300H
Cooling capacity	RT		850	900	950	1000	1100	1200	1300
	kW		2989	3164	3340	3516	3868	4219	4571
	10 ³ kcal/h		257.0	272.1	287.3	302.4	332.6	362.9	393.1
Power input	kW		486.3	512.3	542.8	570.7	624.4	678.4	731.3
COP	W/W		6.145	6.177	6.153	6.161	6.194	6.220	6.251
IPLV	W/W		7.294	7.272	6.978	6.949	6.807	7.015	7.121
Motor configuration power	kW		560.0	630.0	630.0	630.0	695.0	760.0	840.0
Rated current	A		844.5	889.5	942.5	990.9	1084	1178	1270
Max. operating current	A		953.6	993.9	1048.5	1103	1207	1313	1411
Locked-rotor current	A		5400	6100	6100	6100	6800	7400	9200
Evaporator	Water flow	m ³ /h	461.7	488.9	516.1	543.2	597.5	651.9	706.2
	Pressure drop	kPa	57.6	59.7	58.1	60.0	59.1	58.4	67.7
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Condenser	Water flow	m ³ /h	574.7	608.4	642.5	676.3	743.5	810.8	877.5
	Pressure drop	kPa	66.3	66.2	64.0	68.7	64.3	58.5	64.9
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Unit dimensions	Length	mm	4690	4690	4745	4745	4745	4745	4745
	Width	mm	1950	1950	2260	2260	2260	2260	2260
	Height	mm	2410	2410	2610	2610	2610	2610	2610
Shipping weight	kg		11425	11494	11920	12067	12235	12380	12480
Running weight	kg		13712	13839	14532	14773	15108	15376	15500

Note:
1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h·ft²·°F/Btu (0.0176m²·°C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h·ft²·°F/Btu (0.0440m²·°C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Gear-drive Centrifugal Chiller - High Efficiency Series

Model		CCWE	1400H10	1500H10	1600H10	1700H10	1800H10
Cooling capacity		RT	1400	1500	1600	1700	1800
		kW	4922	5274	5626	5977	6329
		10 ⁴ kcal/h	423.3	453.6	483.8	514.0	544.3
Power input		kW	793.4	848.5	909.4	965.4	1013
COP		W/W	6.205	6.216	6.186	6.191	6.250
IPLV		W/W	6.617	6.457	6.661	6.596	6.768
Motor configuration power		kW	930.0	990.0	1100	1100	1200
Rated current		A	52.60	56.30	60.30	64.10	67.20
Max. operating current		A	58.91	62.79	67.52	71.82	74.87
Locked-rotor current		A	380.0	405.0	450.0	450.0	490.0
Evaporator	Water flow	m3/h	760.5	814.8	869.1	923.5	977.8
	Pressure drop	kPa	63.6	60.9	59.3	66.8	70.8
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400
Condenser	Water flow	m3/h	946.5	1014	1082	1150	1217
	Pressure drop	kPa	68.0	66.9	64.9	73.2	70.8
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5190	5190	5190	5190	5290
	Width	mm	2700	2700	2700	2700	3150
	Height	mm	3010	3010	3010	3010	3180
Shipping weight		kg	19370	20150	20850	20879	23360
Running weight		kg	22840	23490	24210	24289	27040

Model		CCWE	1900H10	2000H10	2100H10	2200H10
Cooling capacity		RT	1900	2000	2100	2200
		kW	6680	7032	7384	7735
		10 ⁴ kcal/h	574.5	604.8	635.0	665.2
Power input		kW	1070	1131	1180	1251
COP		W/W	6.242	6.217	6.259	6.185
IPLV		W/W	6.737	6.681	6.783	6.697
Motor configuration power		kW	1200	1320	1320	1450
Rated current		A	71.00	75.10	78.30	83.00
Max. operating current		A	80.12	84.21	88.31	93.45
Locked-rotor current		A	490.0	540.0	540.0	590.0
Evaporator	Water flow	m3/h	1032	1086	1141	1195
	Pressure drop	kPa	66.0	67.5	67.0	67.1
	Water pipe connection	mm	DN400	DN400	DN400	DN400
Condenser	Water flow	m3/h	1284	1353	1419	1489
	Pressure drop	kPa	67.6	66.6	66.5	67.0
	Water pipe connection	mm	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5290	5290	5290	5290
	Width	mm	3150	3150	3150	3150
	Height	mm	3180	3180	3180	3180
Shipping weight		kg	23590	23870	24120	24350
Running weight		kg	27490	27840	28076	28310

Note:

1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h-ft²-°F/Btu (0.0176m². °C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h-ft²-°F/Btu (0.0440m². °C/kW).

2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.

3. The model in the selection software is CCW****#, # is the production serial number and the actual product shall prevail.

4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Gear-drive Centrifugal Chiller - High Efficiency Series

Model		CCWE	2300H10	2400H10	2500H10	2600H10	2700H10	2800H10	2900H10	3000H10
Cooling capacity		RT	2300	2400	2500	2600	2700	2800	2900	3000
		kW	8087	8438	8790	9142	9493	9845	10196	10548
		10 ⁴ kcal/h	695.5	725.8	756.0	786.2	816.5	846.7	877.0	907.2
Power input		kW	1246	1305	1357	1403	1454	1512	1574	1619
COP		W/W	6.492	6.468	6.480	6.517	6.529	6.512	6.477	6.515
IPLV		W/W	7.119	7.113	7.099	7.079	7.052	7.069	7.056	7.053
Motor configuration power		kW	1450	1600	1600	1600	1800	1800	1800	2000
Rated current		A	82.70	86.60	90.00	93.10	96.50	100.3	104.5	107.4
Max. operating current		A	94.29	97.86	102.5	105.9	109.9	114.1	117.0	121.2
Locked-rotor current		A	574.0	648.0	648.0	648.0	725.0	725.0	725.0	800.0
Evaporator	Water flow	m³/h	1249	1304	1358	1412	1467	1521	1575	1630
	Pressure drop	kPa	75.5	74.8	74.8	74.4	74.2	74.2	73.9	72.9
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Condenser	Water flow	m³/h	1547	1616	1683	1749	1816	1884	1952	2018
	Pressure drop	kPa	70.3	71.3	71.9	72.7	72.6	73.7	71.8	72.2
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Unit dimensions	Length	mm	5900	5900	5900	5900	5900	5900	5900	5900
	Width	mm	3360	3360	3360	3360	3360	3360	3360	3360
	Height	mm	3650	3650	3650	3650	3650	3650	3650	3650
Refrigerant charge		kg	2150	2200	2250	2300	2350	2400	2450	2500
Shipping weight (non-marine water box)		kg	27015	27215	27415	27605	27845	28035	28225	28500
Running weight (non-marine water box)		kg	34210	34580	34950	35310	35720	36080	36485	36930

Note:

1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h-ft²-°F/Btu (0.0176m². °C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h-ft²-°F/Btu (0.0440m². °C/kW).

2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.

3. The model in the selection software is CCW****#, # is the production serial number and the actual product shall prevail.

4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Gear-drive Centrifugal Chiller - High Efficiency Series

Model		CCWE	500E	550E	600E	650E	700E	750E	800E
Cooling capacity	RT		500.0	550.0	600.0	650.0	700.0	750.0	800.0
	kW		1758	1934	2110	2285	2461	2637	2813
	10 ³ kcal/h		151.2	166.3	181.4	196.5	211.7	226.8	241.9
Power input		kW	284.5	311.7	336.0	363.4	392.6	418.6	443.9
COP		W/W	6.178	6.205	6.279	6.288	6.269	6.300	6.337
IPLV		W/W	6.834	6.834	6.889	6.918	6.954	7.232	7.250
Motor configuration power		kW	490.0	490.0	490.0	490.0	490.0	490.0	560.0
Rated current		A	494.1	541.2	583.4	631.1	681.7	726.8	770.8
Max. operating current		A	557.2	611.0	656.9	706.8	764.1	816.0	862.2
Locked-rotor current		A	4700	4700	4700	4700	4700	4700	5400
Evaporator	Water flow	m ³ /h	271.6	298.8	325.9	353.1	380.3	407.4	434.6
	Pressure drop	kPa	70.0	72.1	73.0	76.8	46.7	49.0	48.9
	Water pipe connection	mm	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Condenser	Water flow	m ³ /h	337.3	371.0	404.2	437.9	471.8	505.2	538.8
	Pressure drop	kPa	67.4	70.5	69.6	70.5	59.0	59.1	58.6
	Water pipe connection	mm	DN250	DN250	DN250	DN250	DN300	DN300	DN300
Unit dimensions	Length	mm	5020	5020	5020	5020	5020	5020	5020
	Width	mm	1800	1800	1800	1800	2100	2100	2100
	Height	mm	2410	2410	2410	2410	2510	2510	2510
Shipping weight		kg	10400	10550	10700	10820	12260	12460	12580
Running weight		kg	12340	12490	12640	12760	14479	14740	14989

Model		CCWE	850E	900E	950E	1000E	1100E	1200E	1300E
Cooling capacity	RT		850.0	900.0	950.0	1000	1100	1200	1300
	kW		2989	3164	3340	3516	3868	4219	4571
	10 ³ kcal/h		257.0	272.1	287.3	302.4	332.6	362.9	393.1
Power input		kW	470.9	501.0	522.8	552.0	608.3	661.1	715.1
COP		W/W	6.346	6.316	6.389	6.369	6.358	6.382	6.392
IPLV		W/W	7.293	7.361	7.148	7.165	7.110	7.182	7.181
Motor configuration power		kW	560.0	630.0	630.0	630.0	695.0	760.0	840.0
Rated current		A	817.7	870.0	907.9	958.5	1056	1148	1242
Max. operating current		A	922.0	971.8	1010.4	1068	1176	1280	1381
Locked-rotor current		A	5400	6100	6100	6100	6800	7400	9200
Evaporator	Water flow	m ³ /h	461.7	488.9	516.1	543.2	597.5	651.9	706.2
	Pressure drop	kPa	51.2	52.6	50.4	52.1	52.3	52.1	60.1
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Condenser	Water flow	m ³ /h	572.3	606.7	639.5	673.4	741.1	808.1	875.0
	Pressure drop	kPa	55.7	61.9	57.4	61.5	57.3	55.0	63.5
	Water pipe connection	mm	DN300	DN300	DN300	DN300	DN300	DN300	DN300
Unit dimensions	Length	mm	5020	5020	5045	5045	5045	5045	5045
	Width	mm	2100	2100	2260	2260	2260	2260	2260
	Height	mm	2510	2510	2610	2610	2610	2610	2610
Shipping weight		kg	12720	12850	13560	13730	13950	14250	14250
Running weight		kg	15207	15395	16372	16636	17023	17446	17446

Note:
1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h·ft²·°F/Btu (0.0176m²·°C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h·ft²·°F/Btu (0.0440m²·°C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#, # is the production serial number and the actual product shall prevail.
4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Gear-drive Centrifugal Chiller - High Efficiency Series

Model		CCWE	1400E10	1500E10	1600E10	1700E10	1800E10
Cooling capacity	RT		1400	1500	1600	1700	1800
	kW		4922	5274	5626	5977	6329
	10 ³ kcal/h		423.3	453.6	483.8	514.0	544.3
Power input		kW	772.8	827.9	878.7	905.7	956.3
COP		W/W	6.369	6.370	6.402	6.599	6.618
IPLV		W/W	6.881	6.887	6.901	7.076	7.211
Motor configuration power		kW	930.0	990.0	1100.0	1100	1200
Rated current		A	51.30	54.90	58.30	60.10	63.50
Max. operating current		A	57.33	61.22	65.00	67.20	70.56
Locked-rotor current		A	380.0	405.0	450.0	450.0	490.0
Evaporator	Water flow	m ³ /h	760.5	814.8	869.1	923.5	977.8
	Pressure drop	kPa	59.8	56.8	55.4	60.3	62.9
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400
Condenser	Water flow	m ³ /h	943.3	1011	1078	1141	1208
	Pressure drop	kPa	59.9	65.1	62.2	71.9	68.2
	Water pipe connection	mm	DN400	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5690	5690	5690	5690	5790
	Width	mm	2800	2800	2800	2800	3150
	Height	mm	3010	3010	3010	3010	3180
Shipping weight		kg	22324	22515	24030	24817	25312
Running weight		kg	25944	26055	27640	28727	28992

Model		CCWE	1900E10	2000E10	2100E10	2200E10
Cooling capacity	RT		1900	2000	2100	2200
	kW		6680	7032	7384	7735
	10 ³ kcal/h		574.5	604.8	635.0	665.2
Power input		kW	1002	1073	1133	1205
COP		W/W	6.666	6.557	6.517	6.418
IPLV		W/W	7.266	7.221	7.222	7.003
Motor configuration power		kW	1200	1320	1320	1450
Rated current		A	66.50	71.20	75.20	80.00
Max. operating current		A	74.66	79.49	84.21	89.57
Locked-rotor current		A	490.0	540.0	540.0	590.0
Evaporator	Water flow	m ³ /h	1032	1086	1141	1195
	Pressure drop	kPa	59.4	60.3	60.3	61.3
	Water pipe connection	mm	DN400	DN400	DN400	DN400
Condenser	Water flow	m ³ /h	1274	1344	1412	1482
	Pressure drop	kPa	65.8	58.8	59.4	64.9
	Water pipe connection	mm	DN400	DN400	DN400	DN400
Unit dimensions	Length	mm	5790	5790	5790	5790
	Width	mm	3150	3150	3150	3150
	Height	mm	3180	3180	3180	3180
Shipping weight		kg	25543	25949	26250	26314
Running weight		kg	29443	30019	30306	30374

Note:
1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h·ft²·°F/Btu (0.0176m²·°C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h·ft²·°F/Btu (0.0440m²·°C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#, # is the production serial number and the actual product shall prevail.
4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Gear-drive Centrifugal Chiller - High Efficiency Series

Model		CCWE	2300HS10	2400HS10	2500HS10	2600HS10	2700HS10	2800HS10	2900HS10	3000HS10
Cooling capacity	RT		2300	2400	2500	2600	2700	2800	2900	3000
	kW		8087	8438	8790	9142	9493	9845	10196	10548
	10 ⁴ kcal/h		695.5	725.8	756.0	786.2	816.5	846.7	877.0	907.2
Power input	kW		1184.9	1244.7	1298.8	1347.3	1400.7	1458.8	1522.9	1568.5
COP	W/W		6.825	6.780	6.768	6.785	6.778	6.749	6.696	6.725
IPLV	W/W		7.172	7.163	7.146	7.123	7.094	7.109	7.095	7.090
Motor configuration power	kW		1450	1600	1600	1600	1800	1800	1800	2000
Rated current	A		78.60	82.60	86.20	89.40	93.00	96.80	101.1	104.1
Max. operating current	A		90.72	94.82	98.49	101.6	105.2	109.3	113.6	116.7
Locked-rotor current	A		574.0	648.0	648.0	648.0	725.0	725.0	725.0	800.0
Evaporator	Water flow	m ³ /h	1249	1304	1358	1412	1467	1521	1575	1630
	Pressure drop	kPa	75.6	74.9	74.9	74.6	74.4	74.3	74.0	73.0
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Condenser	Water flow	m ³ /h	1538	1606	1674	1740	1807	1875	1944	2010
	Pressure drop	kPa	70.8	71.8	72.5	73.3	73.3	74.4	72.6	72.9
	Water pipe connection	mm	DN500	DN500	DN500	DN500	DN500	DN500	DN500	DN500
Unit dimensions	Length	mm	5900	5900	5900	5900	5900	5900	5900	5900
	Width	mm	3360	3360	3360	3360	3360	3360	3360	3360
	Height	mm	3650	3650	3650	3650	3650	3650	3650	3650
Shipping weight (non-marine water box)		kg	27590	27890	27990	28240	28480	28670	28860	29140
Running weight (non-marine water box)		kg	35150	35520	35890	36350	36760	37120	37530	37970

Note:
1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h·ft²·°F/Btu (0.0176m²·°C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h·ft²·°F/Btu (0.0440m²·°C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Magnetic Bearing Centrifugal Chiller

Model		CCWG	170EV	200EV	230EV	250EV	350EVD
Cooling capacity	RT		170.0	200.0	230.0	250.0	350.0
	kW		597.7	703.2	808.7	879.0	1231
	10 ⁴ kcal/h		51.41	60.48	69.55	75.60	105.8
Power input	kW		93.40	107.6	126.6	141.8	187.4
COP	W/W		6.398	6.532	6.388	6.200	6.567
IPLV	W/W		10.20	10.56	10.62	10.86	10.96
Motor configuration power	kW		165.0	165.0	165.0	165.0	2×165.0
Rated current	A		152.6	175.9	206.8	231.6	306.1
Max. operating current	A		181.7	207.8	243.3	272.3	366.0
Evaporator	Water flow	m ³ /h	92.35	108.6	124.9	135.8	190.1
	Pressure drop	kPa	31.4	41.9	46.6	54.0	63.5
	Water pipe connection	mm	DN150	DN150	DN150	DN150	DN250
Condenser	Water flow	m ³ /h	115.1	135.1	155.8	171.0	236.1
	Pressure drop	kPa	26.8	35.8	38.3	44.8	63.6
	Water pipe connection	mm	DN150	DN150	DN150	DN150	DN250
Unit dimensions	Length	mm	3500	3500	3500	3500	4650
	Width	mm	1400	1400	1400	1400	2000
	Height	mm	1800	1800	1800	1800	2400
Shipping weight		kg	3110	3110	3225	3225	8115
Running weight		kg	3660	3660	3735	3735	9455

Model		CCWG	400EVD	450EVD	500EVD	800EV	900EV
Cooling capacity	RT		400.0	450.0	500.0	800.0	900.0
	kW		1406	1582	1758	2813	3164
	10 ⁴ kcal/h		121.0	136.1	151.2	241.9	272.2
Power input	kW		211.8	242.3	280.8	426.4	489.3
COP	W/W		6.640	6.530	6.260	6.596	6.467
IPLV	W/W		11.16	11.26	11.29	10.43	10.53
Motor configuration power	kW		2×165.0	2×165.0	2×165.0	2×300.0	2×300.0
Rated current	A		346.1	395.8	458.8	696.7	799.4
Max. operating current	A		412.9	471.9	546.9	836.8	944.6
Evaporator	Water flow	m ³ /h	217.3	244.4	271.6	434.6	488.9
	Pressure drop	kPa	62.7	62.2	61.2	66.2	66.8
	Water pipe connection	mm	DN250	DN250	DN250	DN300	DN300
Condenser	Water flow	m ³ /h	269.4	303.5	338.8	537.1	605.0
	Pressure drop	kPa	62.4	63.5	64.4	49.2	49.3
	Water pipe connection	mm	DN250	DN250	DN250	DN300	DN300
Unit dimensions	Length	mm	4650	4650	4650	5500	5500
	Width	mm	2000	2000	2000	2680	2680
	Height	mm	2400	2400	2400	2650	2650
Shipping weight		kg	8260	8410	8560	12500	13000
Running weight		kg	9630	9780	9930	14500	15000

Note:
1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h·ft²·°F/Btu (0.0176m²·°C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h·ft²·°F/Btu (0.0440m²·°C/kW).
2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.
3. The model in the selection software is CCW****#. # is the production serial number and the actual product shall prevail.
4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Water Cooled Screw Chiller



340~1780kW

Flooded Water Cooled Screw Chiller

- Twin-rotor screw compressor
- Flooded evaporator
- Stepless capacity adjust
- Accurate cooling capacity control
- Reliable oil system



120~450RT

Inverter Water Cooled Screw Chiller

- Inverter start, no impact of the power grid
- Twin-rotor screw compressor
- Full falling film evaporating technology
- Quiet operation
- Reliable oil system



70~470RT

Full Falling Film Water Cooled Screw Chiller

- Full falling film evaporating technology
- Twin-rotor screw compressor
- Stepless capacity adjust
- Accurate cooling capacity control
- Intelligent control

Specifications - Flooded Water Cooled Screw Chiller

Model (LSBLG***MCF-B)		340	440	540	720	805	890	1055	1200	1300	1410	1620	1780
Cooling capacity	RT	95.81	124.0	152.2	202.9	227.0	250.9	297.5	338.4	366.5	397.3	457.0	502.0
	kW	336.9	436.1	535.0	713.3	798.0	882.1	1046	1190	1289	1397	1607	1765
Power input	kW	59.74	76.69	93.63	126.9	143.7	154.4	185.9	205.3	230.7	248.7	290.2	304.9
COP	W/W	5.638	5.687	5.715	5.619	5.554	5.713	5.627	5.796	5.587	5.617	5.536	5.788
IPLV	W/W	6.516	6.559	6.604	6.506	6.412	6.608	6.492	7.290	7.037	7.125	6.971	7.299
Compressor	Qty	1	1	1	1	1	1	1	2	2	2	2	2
	Type	Semi-hermetic screw compressor											
	Starting method	Wye-Delta											
Capacity adjust range		Stepless											
Refrigerant	Type	R134a											
	Charge amount	kg	130	145	160	230	230	250	360	330	330	340	400
Power supply		380V-3Ph-50Hz											
Rated current	A	103.2	132.4	161.6	219.2	248.1	266.6	320.9	1#: 153.8 2#: 200.6	1#: 172.8 2#: 225.4	1#: 214.7 2#: 214.7	1#: 250.5 2#: 250.5	1#: 263.2 2#: 263.2
Max. operating current	A	154.6	208.0	235.0	301.0	369.0	362.8	396.8	1#: 235.0 2#: 301.0	1#: 235.0 2#: 301.0	1#: 301.0 2#: 301.0	1#: 369.0 2#: 369.0	1#: 362.8 2#: 362.8
Starting current	A	315.0	415.0	479.0	650	845.0	753.3	888.3	1#: 479 2#: 650	1#: 479 2#: 650	1#: 650 2#: 650	1#: 845 2#: 845	1#: 753.3 2#: 753.3
Evaporator	Water flow	m³/h	52.04	67.38	82.66	110.2	123.3	136.3	161.6	183.8	199.1	215.8	248.2
	Pressure drop	kPa	24.3	26.1	25.9	22.0	26.9	26.8	26.5	65.0	75.0	65.0	74.5
	Water pipe connection	mm	DN150	DN150	DN150	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN200
Condenser	Water flow	m³/h	65.62	84.86	104.0	139.0	155.8	171.5	203.8	230.9	251.4	272.3	313.8
	Pressure drop	kPa	24.7	25.7	26.5	24.5	26.1	28.1	24.6	69.0	80.5	78.2	79.7
	Water pipe connection	mm	DN150	DN150	DN150	DN200	DN200	DN200	DN200	DN200	DN200	DN200	DN200
Unit dimensions	Length	mm	3550	3550	3550	3580	3580	3580	3650	4650	4650	4650	5180
	Width	mm	1200	1200	1200	1400	1400	1400	1500	1500	1500	1500	1600
	Height	mm	1830	1843	1843	1980	2030	2082	2535	2290	2290	2290	2390
Shipping weight	kg	2458	2963	3054	3585	3699	3864	5078	6527	6527	6710	7270	7573
Running weight	kg	2648	3193	3324	3975	4099	4294	5618	7167	7167	7420	8060	8413

Note:

1. Performance and efficiency are based on AHRI 550/590-2018.

Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h-ft²-°F/Btu (0.0176m². °C/kW);

Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h-ft²-°F/Btu (0.0440m². °C/kW).

2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.

3. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Inverter Water Cooled Screw Chiller

Model		SCWE	120EV	140EV	160EV	190EV	210EV	240EV	250EV-B	260EV-B	270EV-B
Cooling capacity	RT		118.9	138.8	158.7	189.6	203.6	236.3	249.6	259.5	266.4
	kW		418.0	488.2	558.0	666.6	715.9	830.8	877.6	912.2	936.7
Power input	kW		74.56	84.65	92.69	111.2	119.5	138.8	145.9	152.5	156.9
COP	W/W		5.606	5.767	6.020	5.996	5.991	5.988	6.013	5.981	5.972
IPLV	W/W		8.669	8.973	9.309	9.025	9.217	9.194	8.893	8.842	8.947
Compressor	Qty		1	1	1	1	1	1	1	1	1
	Type		Semi-hermetic screw compressor								
	Starting method		Inverter								
Capacity adjust range			Single compressor 15%-100%, Dual compressor 8%-100%								
Refrigerant	Type	/	R134a								
	Charge amount	kg	130	150	160	180	190	210	280	280	280
Power supply			380V-3Ph-50Hz								
Compressor number			1#	1#	1#	1#	1#	1#	1#	1#	1#
Rated current	A		121.8	138.3	151.4	181.6	195.2	226.7	238.4	249.2	256.3
Max. operating current	A		154.3	206.1	206.1	228.3	245.8	272.6	328.1	328.1	328.1
Starting current	A		<121.8	<138.3	<151.4	<181.6	<195.2	<226.7	<238.4	<249.2	<256.3
Evaporator	Water flow	m³/h	64.57	75.42	86.22	103.0	110.6	128.4	135.6	140.9	144.7
	Pressure drop	kPa	60.8	59.1	64.4	58.3	60.9	58.8	61.9	60.7	57.2
	Water pipe connection	mm	DN150	DN150	DN150	DN150	DN150	DN200	DN200	DN200	DN200
Condenser	Water flow	m³/h	81.49	94.81	107.7	128.8	138.3	160.5	169.5	176.3	181.1
	Pressure drop	kPa	55.8	56.1	62.7	52.3	55.7	53.3	50.4	50.0	48.6
	Water pipe connection	mm	DN150	DN150	DN150	DN200	DN200	DN200	DN200	DN200	DN200
Unit dimensions	Length	mm	3513	3513	3513	3538	3538	3538	3610	3610	3610
	Width	mm	1300	1300	1300	1450	1450	1500	1700	1700	1700
	Height	mm	2000	2000	2000	2130	2130	2130	2235	2235	2235
Shipping weight	kg		2663	3156	3189	3529	3557	3762	4550	4578	4608
Running weight	kg		2843	3357	3401	3819	3855	4095	5060	5098	5148

Model		SCWE	260EV	280EV	300EV	320EV	350EV	380EV	410EV	430EV	450EV	480EV
Cooling capacity	RT		252.2	277.2	296.3	311.2	342.4	378.6	409.1	428.9	442.8	471.1
	kW		886.8	974.7	1042	1094	1204	1331	1438	1508	1557	1656
Power input	kW		147.0	162.9	174.1	180.2	200.5	220.1	239.5	251.9	257.6	276.7
COP	W/W		6.032	5.981	5.985	6.073	6.005	6.047	6.006	5.986	6.044	5.985
IPLV	W/W		8.700	8.913	9.222	9.087	9.205	9.323	9.269	9.199	9.228	9.325
Compressor	Qty		2	2	2	2	2	2	2	2	2	2
	Type		Semi-hermetic screw compressor									
	Starting method		Inverter									
Capacity adjust range			Single compressor 15%-100%, Dual compressor 8%-100%									
Refrigerant	Type	/	R134a									
	Charge amount	kg	270	280	300	300	300	310	330	335	335	340
Power supply			380V-3Ph-50Hz									
Compressor number			1#	2#	1#	2#	1#	2#	1#	2#	1#	2#
Rated current	A		95.6	144.6	106.2	160.2	171.2	113.2	147.2	163.8	163.8	179.8
Max. operating current	A		154.3	228.3	154.3	228.3	228.3	154.3	228.3	228.3	228.3	272.6
Starting current	A		<95.6	<144.6	<106.2	<160.2	<171.2	<113.2	<147.2	<163.8	<163.8	<179.8
Evaporator	Water flow	m³/h	137.0		150.6	161.0	169.1		186.0	205.7	222.2	233.0
	Pressure drop	kPa	57.7		60.7	53.3	54.5		60.9	58.0	60.1	60.8
	Water pipe connection	mm	DN200		DN200	DN200	DN200		DN200	DN200	DN200	DN200
Condenser	Water flow	m³/h	171.2		188.4	201.3	211.0		232.5	256.9	277.8	291.4
	Pressure drop	kPa	66.8		69.1	64.6	62.7		68.8	67.6	72.8	72.7
	Water pipe connection	mm	DN200		DN200	DN200	DN200		DN200	DN200	DN200	DN200
Unit dimensions	Length	mm	4650		4650	4650	4650		4650	4650	4652	4652
	Width	mm	1600		1600	1600	1600		1600	1600	1700	1700
	Height	mm	2184		2184	2184	2184		2184	2235	2235	2235
Shipping weight	kg		5416		5462	5554	5846		5889	5990	6331	6403
Running weight	kg		5867		5936	6075	6386		6444	6602	7000	7095

Note:

1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h-ft2-°F/Btu (0.0176m2. °C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h-ft2-°F/Btu (0.0440m2. °C/kW).

2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.

3. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Specifications - Full Falling Film Water Cooled Screw Chiller

Model		SCWE	70H-A	90H-A	100H-A	110H-A	130H-A	150H-A	170H-A	200H-A	210H-A	230H-A	220H-A	270H-A	300H-A	350H-A	390H-A	420H-A	470H-A
Cooling capacity	RT		69.91	87.27	94.93	108.0	130.8	150.8	170.6	194.0	210.3	231.9	217.3	264.8	301.4	342.3	381.7	421.9	465.0
	kW		245.8	306.8	333.8	379.8	459.9	530.1	599.8	682.2	739.4	815.3	764.2	930.9	1060	1203	1342	1484	1635
Power input	kW		42.33	51.24	56.34	64.09	78.06	88.70	99.9	113.1	128.2	141.2	128.0	155.6	177.4	200.4	228.4	256.9	282.9
COP	W/W		5.807	5.988	5.924	5.926	5.892	5.976	6.002	6.029	5.769	5.773	5.969	5.981	5.975	6.006	5.876	5.774	5.779
IPLV	W/W		7.772	7.432	7.848	7.849	7.237	7.377	7.495	7.533	7.528	7.662	8.219	7.752	7.789	7.929	7.857	7.820	7.933
Compressor	Qty		1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
	Type		Semi-hermetic screw compressor																
	Starting method		Wye-Delta																
Capacity adjust range			Stepless																
Refrigerant	Type	/	R134a																
	Charge amount	kg	75	90	95	105	120	140	160	180	180	200	210	270	280	300	320	350	380
Power supply			380V-3Ph-50Hz																
Rated current	A		73.1	88.5	97.3	110.6	134.8	153.1	172.5	195.3	221.3	243.8	1#: 110.5 2#: 110.5	1#: 134.4 2#: 134.4	1#: 153.1 2#: 153.1	1#: 173.0 2#: 173.0	1#: 197.2 2#: 197.2	1#: 221.8 2#: 221.8	1#: 244.2 2#: 244.2
Max. operating current	A		114.9	136.6	154.6	176.9	208.0	235.0	260.0	301.0	335.0	369.0	1#: 176.9 2#: 176.9	1#: 208.0 2#: 208.0	1#: 235.0 2#: 235.0	1#: 260.0 2#: 260.0	1#: 301.0 2#: 301.0	1#: 335.0 2#: 335.0	1#: 369.0 2#: 369.0
Starting current	A		202	258	315	378	415	479	506	650	683	845	1#: 378 2#: 378	1#: 415 2#: 415	1#: 479 2#: 479	1#: 506 2#: 506	1#: 650 2#: 650	1#: 683 2#: 683	1#: 845 2#: 845
Evaporator	Water flow	m³/h	47.69	47.41	51.57	58.67	71.06	81.90	92.7	105.4	114.2	126.0	118.1	143.8	163.7	185.9	207.4	229.2	252.6
	Pressure drop	kPa	71.5	67.7	59.4	63.8	70.7	64.2	62.7	65.7	64.1	68.9	50.6	59.1	56.6	58.8	56.7	59.8	58.8
	Water pipe connection	mm	DN150										DN200						
Condenser	Water flow	m³/h	37.98	59.29	64.58	73.48	89.1	102.4	115.9	131.7	143.6	158.3	147.7	179.9	204.8	232.4	260.0	288.1	317.5
	Pressure drop	kPa	69.0	68.4	68.8	66.7	65.2	71.4	70.9	72.1	69.5	73.1	61.7	79.0	77.7	77.6	77.4	72.4	79.2
	Water pipe connection	mm	DN150										DN200						
Unit dimensions	Length	mm	3500	3500	3500	3500	3500	3500	3500	3550	3550	3550	4600	4600	4600	4600	4600	4650	4650
	Width	mm	1200	1200	1200	1200	1200	1200	1200	1400	1400	1400	1500	1500	1500	1500	1500	1600	1600
	Height	mm	1741	1741	1791	1791	1807	1807	1841	1941	1991	1991	2188	2238	2238	2238	2238	2343	2343
Shipping weight	kg		1871	2239	2276	2322	2810	2879	3003	3293	3416	3471	5057	6005	6124	6338	6485	6890	7016
Running weight	kg		2001	2389	2426	2482	2990	3089	3223	3573	3716	3781	5497	6465	6644	6908	7095	7600	7766

Note:

1. Performance and efficiency are based on AHRI 550/590-2018.
Evaporator conditions: water inlet=54°F (12.22°C), water outlet=44°F (6.67°C), fouling factor=0.00010h-ft2-°F/Btu (0.0176m2. °C/kW);
Condenser conditions: water inlet=85°F (29.44°C), water outlet=94.3°F (34.61°C), fouling factor=0.00025h-ft2-°F/Btu (0.0440m2. °C/kW).

2. The design's max working pressure for both the evaporator and condenser are 1.0MPa, but higher pressure can be customized if required.

3. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the software selection and the actual product.

Air Cooled Chiller



95~250RT (115~300RT)

Large Capacity Air Cooled Scroll Chiller

- Two basic modules and maximum 8 units can be combined to reach up to 1000RT
- Cooling only/Heat pump
- Famous brand hermetic scroll compressor with IDV (intermediate discharge valve)
- Baffle plate shell and tube water side heat exchanger
- High efficiency air side heat exchanger: Arc window structure hydrophilic aluminum fins, reduce pressure loss. High efficiency inner-threaded copper pipes greatly enhance heat exchange. The industry's original patented distribution method and the use of simulation flow optimization design, greatly improved heat exchange efficiency.
- High precision EXV, more accurate temperature control
- Reliable oil system
- Eco-friendly R410A refrigerant
- Comfortable heating
- Patented online self-learning defrosting technology
- Seamless connection, less footprint
- Quiet operation
- Wide operating range

Operating range

Operating condition	Cooling	Heating
Ambient temperature	0~48℃	-15~35℃
Water outlet temperature	5~15℃	20~50℃

Specifications - Large Capacity Air Cooled Scroll Chiller

Model			Unit	RHAE95HA	RHAE125HA	RHAE190HA	RHAE220HA	RHAE250HA
Nominal parameter	Cooling capacity		kW	330.0	440.0	660.0	770.0	880.0
	Cooling power input		kW	106.0	141.0	212.0	247.0	282.0
	Cooling COP		W/W	3.113	3.120	3.113	3.117	3.120
	IPLV		W/W	4.131	4.141	4.131	4.135	4.141
	Heating capacity		kW	350.0	465.0	700.0	815.0	930.0
	Heating power input		kW	109.0	145.0	218.0	254.0	290.0
	Heating COP		W/W	3.211	3.206	3.211	3.208	3.206
Partial heat recovery*		kW	99.0	132.0	198.0	231.0	264.0	
Compressor	Type		/	Hermetic scroll compressor				
	Quantity	System 1	/	2	2	2	2	2
		System 2	/	1	2	1	1	2
		System 3	/	-	-	2	2	2
		System 4	/	-	-	1	2	2
Energy regulation mode			/	Adaptive energy regulation				
Refrigerant	Type		/	R410A				
	Charge amount	System 1	kg	47	45	47	47	45
		System 2	kg	23	45	23	23	45
		System 3	kg	-	-	47	45	45
		System 4	kg	-	-	23	45	45
Power supply			/	380V-3Ph-50Hz				
Rated current			A	189.0	250.9	189.0/189.0	189.0/250.9	250.9/250.9
Start current			A	589.0	673.0	589.0/589.0	589.0/673.0	673.0/673.0
Max. operating current			A	258.0	344.0	258.0/258.0	258.0/344.0	344.0/344.0
Air side heat exchanger	Type		/	High efficiency internal thread pipe + hydrophilic aluminum fin				
	No. of fan		/	6	8	12	14	16
	Air flow rate		m³/h	20000×6	20000×8	20000×12	20000×14	20000×16
	Motor power input		kW	2.000×6	2.000×8	2.000×12	2.000×14	2.000×16
Water side heat exchanger	Type		/	Shell and tube				
	Water flow rate		m³/h	56.76	75.68	113.5	132.4	151.4
	Pressure drop		kPa	59.5	58.0	59.5	59.5	58.0
	Water pipe connection		mm	DN125	DN125	DN125/DN125	DN125/DN125	DN125/DN125
	Max. working pressure		kPa	1000	1000	1000	1000	1000
Built-in hydraulic module (optional)			/	Water pump, filter, safety valve, expansion tank, water pressure gauge etc				
Pump type			/	Single-stage piping centrifugal pump				
No. of pump			/	1	1	-	-	-
Pump power input (standard lift)			kW	4	5.5	-	-	-
Pump power input (high lift)			kW	7.5	11	-	-	-
Pump power input (ultra high lift)			kW	11	15	-	-	-
External water head (standard lift/nominal flow)			kPa	110	104	-	-	-
External water head (high lift/nominal flow)			kPa	215	231	-	-	-
External water head (ultra high lift/nominal flow)			kPa	332	310	-	-	-
Expansion tank capacity			L	80	80	-	-	-
Max. water side pressure (with built-in hydraulic module)			kPa	1000	1000	-	-	-
Inlet and outlet pipe (with built-in hydraulic module)			mm	DN125	DN125	-	-	-
Partial heat recovery heat exchanger (optional)*	Type		/	Plate heat exchanger				
	Water flow		m³/h	5.7	7.5	5.7/5.7	5.7/7.5	7.5/7.5
	Water side pressure drop		kPa	10.7	11.5	10.7/10.7	10.7/11.5	11.5/11.5
	Connecting pipe diameter		mm	DN50	DN50	DN50/DN50	DN50/DN50	DN50/DN50
Unit dimensions	Length		mm	3530	4700	7060	8230	9400
	Width		mm	2300	2300	2300	2300	2300
	Height		mm	2500	2500	2500	2500	2500
Unit weight (without built-in hydraulic module)			kg	3100	3870	6200	6970	7740
Operating weight (without built-in hydraulic module)			kg	3200	4020	6400	7220	8040
Operating weight (with built-in hydraulic module)			kg	3450	4310	-	-	-

Note:

1. Cooling: chilled water outlet temperature 7℃, water flow=cooling capacity×0.172m³/(h·kW), outdoor ambient temperature 35℃ DB; Heating: hot water outlet temperature 45℃, water flow=water flow under cooling mode, outdoor ambient temperature is 7℃ DB/6℃ WB; Partial heat recovery: hot water inlet/outlet temperature=40℃/55℃, chilled water outlet temperature 7℃, water flow=cooling capacity×0.172m³/(h·kW), outdoor ambient temperature 35℃ DB.

2. IPLV calculations according to standard performances (in accordance with AHRI 550/590).

3. The operating weight with built-in hydraulic module is based on standard lift pump.

4. As a result of the continuous improvement of the product, the above parameters may be changed, please refer to the product nameplate and in-kind.

Contents

- ▶ AC Fan Coil Units
- ▶ DC Fan Coil Units
- ▶ Control Solutions

Introduction

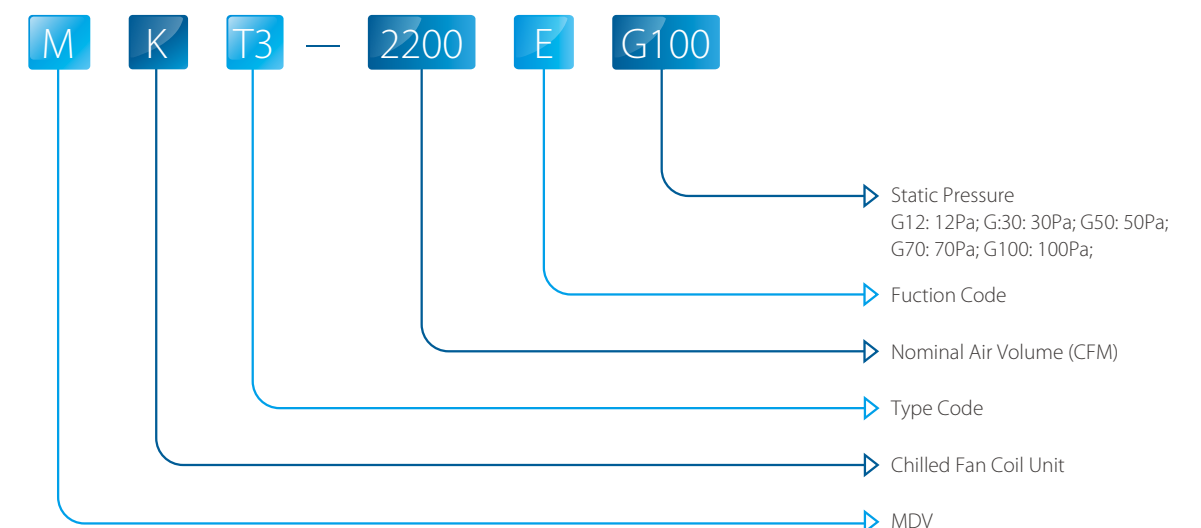
MDV fan coil units are divided into ceiling exposed type, ceiling concealed type, wall-mounted type and floor-standing type according to their structure, design and installation method. The air volume ranges from 150CFM to 2200CFM (255m³/h~3740m³/h). It is a highly versatile product suitable for hospitals, office buildings, hotels, airports and various other applications.



AC Fan Coil Units

























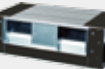




















MDV Fan Coil Units have ceiling exposed type, ceiling concealed type, wall-mounted type and floor-standing type. The air volume ranges from 150CFM to 2200CFM. It is a highly versatile product suitable for hospitals, office buildings, hotels, airports and various other applications.

Nomenclature






















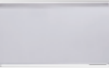








Product Lineup

2-Pipe FCUs

Model		150	200	250	300	350	400	450	500	600		700	750	800	850	900	950	1000	1200	1400	1500	1600	1800	2000	2200
4-way cassette																									
Compact 4-way cassette																									
Duct																									
High static pressure Duct																									
Wall mounted																									
2 nd generation Ceiling&floor																									

4-Pipe FCUs

Model		100	150	200	250	300	350	400	450		500	600	700	750	800	850	900	950	1000	1200	1400	1500
Compact 4-way cassette																						
4-way cassette																						
Duct																						
2 nd generation Ceiling&floor																						

Notes:
The standard power supply for all fan coil units is 220V-240V/50Hz; 208-230V/60Hz can be customized for some series of fan coil units, for further information, please contact with our salesmen.

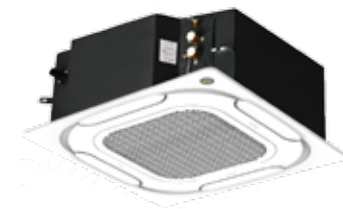
AC Series Functions

Functions				Compact Four-way Cassette	Four-way Cassette	Wall Mounted	2nd Generation Ceiling & Floor	Medium Static Pressure Duct	High Static Pressure Duct
Control Customization	Follow me	With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in the wireless remote controller.		○(KJR-29B)	○(KJR-29B)	○(KJR-29B)	×	×	×
	Anti cold air	Prevent the unit from cold supply air when starting in winter.		●	●	●	×	×	×
	Auto-restart	The unit restarts automatically with the previous settings after power failure.		●	●	●	×	×	×
	Forced fan running	After reaching the set temperature, the valve body closes and the fan operates according to the set logic.		√	√	√	×	×	×
	Heat	Only electric auxiliary heating.		√	√	√	×	×	×
	Temperature compensation	Heating mode: $T_2 = T_1 + \Delta T$; Cooling mode: $T_2 = T_1 - \Delta T$ T2: Indoor Temperature, T1: Setting Temperature, ΔT : Temperature Compensation		√	√	√	×	×	×
	XYE Port	Communicate with central controllers or BMS.		●	●	●	○(FCU-kit)	○(FCU-kit)	○(FCU-kit)
	PQE Port	Communicate with Modbus.		○	○	○	×	×	×
	CCM18/CCM08/CCM15/BMS/IMM	Central controllers and BMS.		●	●	●	○(FCU-kit)	○(FCU-kit)	○(FCU-kit)
	0-10V output control	By outputting a 0-10 V level, the opening of the valve body is controlled to meet different energy requirements.		○	○	○	×	×	×
	0-10V input control	By inputting a 0-10 V level to PCB, the fan motor speed is controlled to meet different energy requirements.		×	×	×	×	×	×
Structure Customization	Right/Left piping connection	Left and right hand piping connections are optional, flexible installation.		×	×	×	●	●	●
	Electric auxiliary heating	Increase heating capacity with additional electric heater.		○	○	○	×	○	○
	Extended drainage pan	Drainage pan accessory.		×	×	×	×	○	×
	Auxiliary drainage pan			○	○	×	○	○	×

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



Four-way Cassette



Model: 600/750/850/950/1200/1500 CFM



R05
Standard



KJR-29B
Optional

Features

- 4-way air supply panel as standard, new 360° air supply panel is optional.
- Fresh air intake, also supply to side room.
- Built-in PCB and drain pump with pump head-750mm.
- Remote controller with LED display is standard, wired controller is optional.
- Safety grill for safety maintenance.
- Optional extended drainage pan for protecting your ceiling better.
- Compatible with 0-10V control function.
- Available for 2/4 pipe system
- EAH is optional (for 2-Pipe 4-Way Cassette).

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



Stylish Panel with Large Airflow Outlet

4-way air supply panel is standard for 4-way cassette.
360° air supply panel is standard for compact 4-way cassette.



NEW 360° panel

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



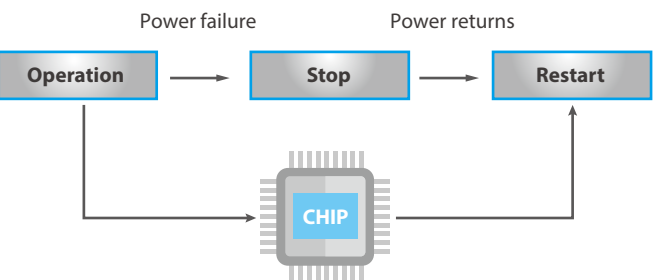
Individual louver control

The Individual louver control can control the motors separately, making it possible to control all four louvers independently.



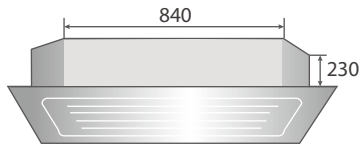
Auto restart

In the event of a sudden power failure during operation, unit restarts automatically and the unit will operate based on the previous setting (operating mode, temperature setting and fan speed).



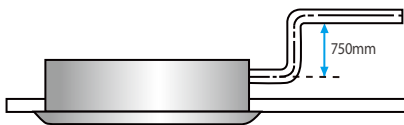
Various Selections

Versions for normal size.
The height of models 600 to 750 is just 230mm whilst models 850 to 1500 is 300mm, making the Four-way Cassette ideal for standard ceilings.



High-lift Drain Pump

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

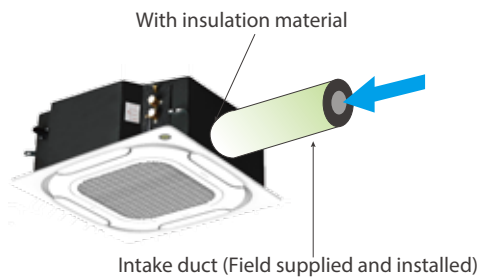


Fresh Air Intake

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

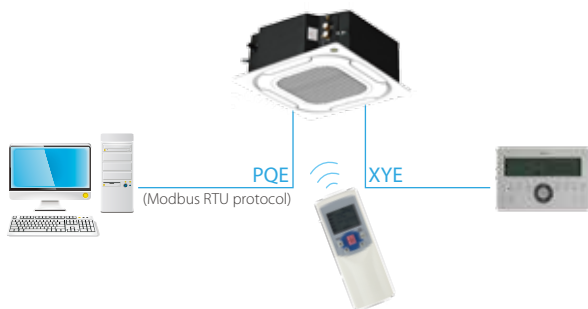
Knock out hole is available int the unit.

Accessories such as booster fan must be supplied on field and installed.



Control solutions

The fan coil units can be connected to MDV central controllers through the customized XYE port, also can be connected to Modbus gateway through the customized PQE port with Modbus RTU protocol.



2-Pipe 4-Way Cassette

Model			MKA-600R	MKA-750R	MKA-850R
Power supply		V/ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	1000/850/720	1250/1060/900	1400/1190/1010
		CFM	590/500/420	740/620/530	820/700/590
Cooling	Capacity (H/M/L)	kW	5.7/4.73/3.96	7/5.62/4.72	7.27/6.46/5.71
	Water flow rate	L/h	980	1204	1250
	Water pressure drop	kPa	23.8	25.2	27
Heating	Capacity (H/M/L)	kW	9.66/7.72/6.27	11.55/9.24/7.51	12.42/9.93/8.07
	Water pressure drop	kPa	16.4	11.8	14.6
Power input (H/M/L)		W	125/84/74	130/102/93	150/124/106
Auxiliary electric heater (AEH)		W	2100	2100	2850
Sound pressure level (H/M/L)		dB(A)	45/41/36	46/42/37	47/43/38
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity		1	1	1
Fan	Type	Centrifugal, forward-curved blades			
	Quantity		1	1	1
Coil	Row		2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7
Panel	Net dimensions (W×H×D)	mm	950×45×950	950×45×950	950×45×950
	Packing size (W×H×D)	mm	1035×90×1035	1035×90×1035	1035×90×1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
Body	Net dimensions (W×H×D)	mm	840×230×840	840×230×840	840×300×840
	Packing size (W×H×D)	mm	900×260×900	900×260×900	900×330×900
	Net weight (non-AEH/with-AEH)	kg	25/27	25/27	30.5/33
	Gross weight (non-AEH/with-AEH)	kg	30/32	30/32	36.2/39
Pipe connections	Water inlet/outlet pipe	inch	RC3/4	RC3/4	RC3/4
	Drain pipe	mm	ODΦ32	ODΦ32	ODΦ32

Model			MKA-950R	MKA-1200R	MKA-1500R
Power supply		V/ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	1600/1360/1150	2000/1700/1440	2550/2170/1840
		CFM	940/800/680	1180/1000/850	1500/1280/1080
Cooling	Capacity (H/M/L)	kW	8.22/7.39/6.54	10.39/9.25/8.2	12.9/11.51/10.21
	Water flow rate	L/h	1414	1787	2219
	Water pressure drop	kPa	31.2	44	40
Heating	Capacity (H/M/L)	kW	13.85/11.08/9	17.58/14.06/11.42	17.6/14.08/11.44
	Water pressure drop	kPa	14.8	34.7	36.7
Power input (H/M/L)		W	155/131/106	190/127/109	190/136/109
Auxiliary electric heater (AEH)		W	2850	2850	/
Sound pressure level (H/M/L)		dB(A)	48/44/39	49/45/40	50/46/41
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity		1	1	1
Fan	Type	Centrifugal, forward-curved blades			
	Quantity		1	1	1
Coil	Row		2	2	3
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7
Panel	Net dimensions (W×H×D)	mm	950×45×950	950×45×950	950×45×950
	Packing size (W×H×D)	mm	1035×90×1035	1035×90×1035	1035×90×1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
Body	Net dimensions (W×H×D)	mm	840×300×840	840×300×840	840×300×840
	Packing size (W×H×D)	mm	900×330×900	900×330×900	900×330×900
	Net weight (non-AEH/with-AEH)	kg	30.5/33	30.5/33	31.8
	Gross weight (non-AEH/with-AEH)	kg	36.2/39	36.2/39	36
Pipe connections	Water inlet/outlet pipe	inch	RC3/4	RC3/4	RC3/4
	Drain pipe	mm	ODΦ32	ODΦ32	ODΦ32

Notes:

1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
3. Noise is tested in a semi-anechoic test room.
4. Auxiliary electric heater (AEH) is optional.

4-Pipe 4-Way Cassette

Model			MKA-600F	MKA-750F	MKA-850F
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	1150/800/690	1460/1020/880	1480/1040/890
		CFM	680/470/410	860/600/510	870/610/520
Cooling	Capacity (H/M/L)	kW	5.1/4.08/3.76	5.93/4.41/3.94	6.17/5.13/4.59
	Water flow rate	L/h	877	1020	1061
	Water pressure drop	kPa	15	17	20
Heating	Capacity (H/M/L)	kW	6.67/5.87/5.07	7.87/6.85/5.9	8.06/6.93/6.05
	Water flow rate	L/h	574	677	693
	Water pressure drop	kPa	37	41	39
Power input (H/M/L)		W	170/120/85	188/135/90	198/140/100
Sound pressure level (H/M/L)		dB(A)	42/32/26	44/34/28	46/36/30
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity		1	1	1
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity		1	1	1
Coil	Row		2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7
Panel	Net dimensions (W×H×D)	mm	950×45×950	950×45×950	950×45×950
	Packing size (W×H×D)	mm	1035×90×1035	1035×90×1035	1035×90×1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
Body	Net dimensions (W×H×D)	mm	840×300×840	840×300×840	840×300×840
	Packing size (W×H×D)	mm	900×330×900	900×330×900	900×330×900
	Net weight	kg	35	35	35
	Gross weight	kg	41	41	41
Pipe connections	Water inlet/outlet pipe	inch	Cold water: RC3/4; Hot water: RC1/2		
	Drain pipe	mm	ODΦ32	ODΦ32	ODΦ32

Model			MKA-950F	MKA-1200F	MKA-1500F
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	1720/1200/1030	1860/1300/1110	2100/1470/1260
		CFM	1010/700/610	1090/760/650	1230/860/740
Cooling	Capacity (H/M/L)	kW	6.7/5.48/4.85	9.28/7.45/6.5	10.58/7.45/6.5
	Water flow rate	L/h	1152	1596	1820
	Water pressure drop	kPa	22	32	38
Heating	Capacity (H/M/L)	kW	8.67/7.63/6.59	11.65/10.49/8.85	12.62/11.36/9.47
	Water flow rate	L/h	746	1002	1085
	Water pressure drop	kPa	42	57	61
Power input (H/M/L)		W	205/145/105	197/135/103	234/165/115
Sound pressure level (H/M/L)		dB(A)	47/38/32	48/40/34	50/42/36
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity		1	1	1
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity		1	1	1
Coil	Row		2	3	3
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7
Panel	Net dimensions (W×H×D)	mm	950×45×950	950×45×950	950×45×950
	Packing size (W×H×D)	mm	1035×90×1035	1035×90×1035	1035×90×1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
Body	Net dimensions (W×H×D)	mm	840×300×840	840×300×840	840×300×840
	Packing size (W×H×D)	mm	900×330×900	900×330×900	900×330×900
	Net weight	kg	35	38	38
	Gross weight	kg	41	44	44
Pipe connections	Water inlet/outlet pipe	inch	Cold water: RC3/4; Hot water: RC1/2		
	Drain pipe	mm	ODΦ32	ODΦ32	ODΦ32

Notes:

1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 70°C, leaving water 60°C, Entering air temperature 20°C DB.
3. Noise is tested in a semi-anechoic test room.

Compact Four-way Cassette



Model: 300/400/500 CFM



R51
Standard



KJR-29B
Optional

Features

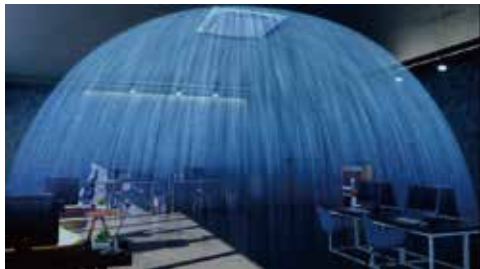
- 360°air supply panel is standard
- Fresh air intake, also supply to side room.
- BuiltS-in PCB and drain pump with pump head-500mm.
- Remote controller with LED display is standard, wired controller is optional.
- Safety grill for safety maintenance.
- Optional extended drainage pan for protecting your ceiling better.
- Compatible with 0-10V control function.
- Available for 2/4 pipe system
- EAH is optional (for 2-Pipe Compact 4-Way Cassette).

Compact design allows installation in shallow ceilings.



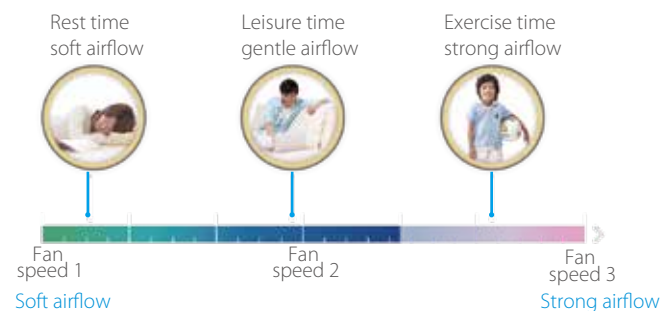
360 ° Airflow

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

The AC Series comes with 3 fan speed option to meet the needs of different indoor conditions.

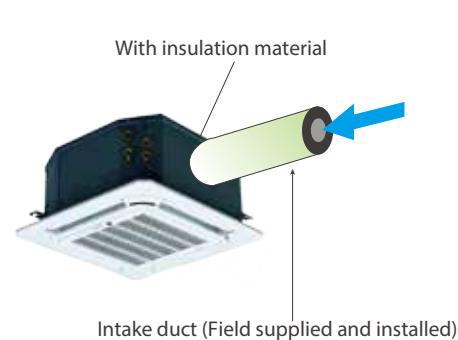


Fresh Air Intake

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

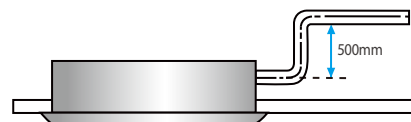
Knock out hole is available in the unit.

Accessories such as booster fan must be supplied on field and installed.



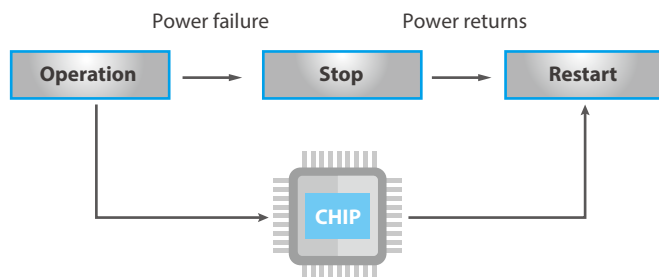
High-lift Drain Pump

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



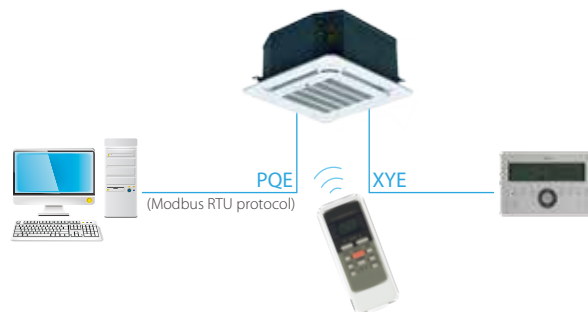
Auto restart

In the event of a sudden power failure during operation, unit restarts automatically and the unit will operate based on the previous setting (operating mode, temperature setting and fan speed).



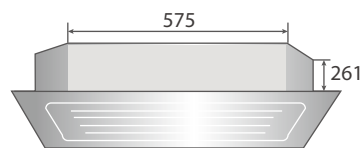
Control solutions

The fan coil units can be connected to MDV central controllers through the customized XYE port, also can be connected to Modbus gateway through the customized PQE port with Modbus RTU protocol.

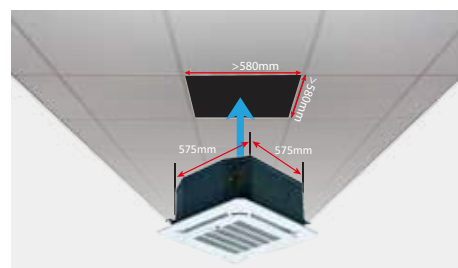


Compact design

The height of models 300 to 500 is just 261mm, making the Compact Four-way Cassette ideal for standard ceilings.



Compact Four-way Cassette body dimension is only 575 mm x 575 mm which can easily fits into less to 585 mm ceiling grid.



2-Pipe Compact 4-Way Cassette

Model			MKD-300	MKD-400	MKD-500
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	510/440/360	680/580/480	850/730/600
		CFM	300/260/210	400/340/280	500/430/350
Cooling	Capacity (H/M/L)	kW	3/2.58/2.16	3.7/3.18/2.66	4.5/3.6/3.06
	Water flow rate	L/h	516	636	774
	Water pressure drop	kPa	14	15	16
Heating	Capacity (H/M/L)	kW	4/3.5/3.08	5.1/4.3/3.83	6/4.76/4.07
	Water pressure drop	kPa	12	13	15
Power input (H/M/L)		W	50/40/30	70/50/40	95/53/42
Auxiliary electric heater (AEH)		W	1000	1000	1000
Sound pressure level (H/M/L)		dB(A)	36/33/28	42/39/32	45/42/34
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity	1			
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity	1			
Coil	Row		2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7
Panel	Net dimensions (WxHxD)	mm	647x50x647	647x50x647	647x50x647
	Packing size (WxHxD)	mm	715x123x715	715x123x715	715x123x715
	Net weight	kg	2.5	2.5	2.5
	Gross weight	kg	4.5	4.5	4.5
Body	Net dimensions (WxHxD)	mm	575x261x575	575x261x575	575x261x575
	Packing size (WxHxD)	mm	670x290x670	670x290x670	670x290x670
	Net weight	kg	16.5	16.5	16.5
	Gross weight	kg	20	20	20
Pipe connections	Water inlet/outlet pipe	inch	G3/4	G3/4	G3/4
	Drain pipe	mm	ODΦ25	ODΦ25	ODΦ25

4-Pipe Compact 4-Way Cassette

Model			MKD-300S	MKD-400S	MKD-500S
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	510/440/360	680/580/480	850/730/600
		CFM	300/260/210	400/340/280	500/430/350
Cooling	Capacity (H/M/L)	kW	2.5/2.2/1.76	2.9/2.55/2.04	3.5/2.87/2.15
	Water flow rate	L/h	430	499	602
	Water pressure drop	kPa	22	16	24
Heating	Capacity (H/M/L)	kW	3.7/3.29/2.92	4.6/3.82/3.4	5.1/4.03/3.52
	Water flow rate	L/h	318	396	439
	Water pressure drop	kPa	17	23	27
Power input (H/M/L)		W	50/40/30	70/50/40	95/65/50
Sound pressure level (H/M/L)		dB(A)	36/33/28	42/39/32	45/42/34
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity	1			
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity	1			
Coil	Row		2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7
Panel	Net dimensions (WxHxD)	mm	647x50x647	647x50x647	647x50x647
	Packing size (WxHxD)	mm	715x123x715	715x123x715	715x123x715
	Net weight	kg	2.5	2.5	2.5
	Gross weight	kg	4.5	4.5	4.5
Body	Net dimensions (WxHxD)	mm	575x261x575	575x261x575	575x261x575
	Packing size (WxHxD)	mm	670x290x670	670x290x670	670x290x670
	Net weight	kg	16.5	16.5	16.5
	Gross weight	kg	20	20	20
Pipe connections	Water inlet/outlet pipe	inch	Cold water: G3/4; Hot water: G1/2		
	Drain pipe	mm	ODΦ25	ODΦ25	ODΦ25

Notes:

1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 70°C, leaving water 60°C, Entering air temperature 20°C DB.
3. Noise is tested in a semi-anechoic test room.

Duct series



Model: 200/300/400/600/800/1000/1200/1400CFM



RM05+FCU KIT
Optional

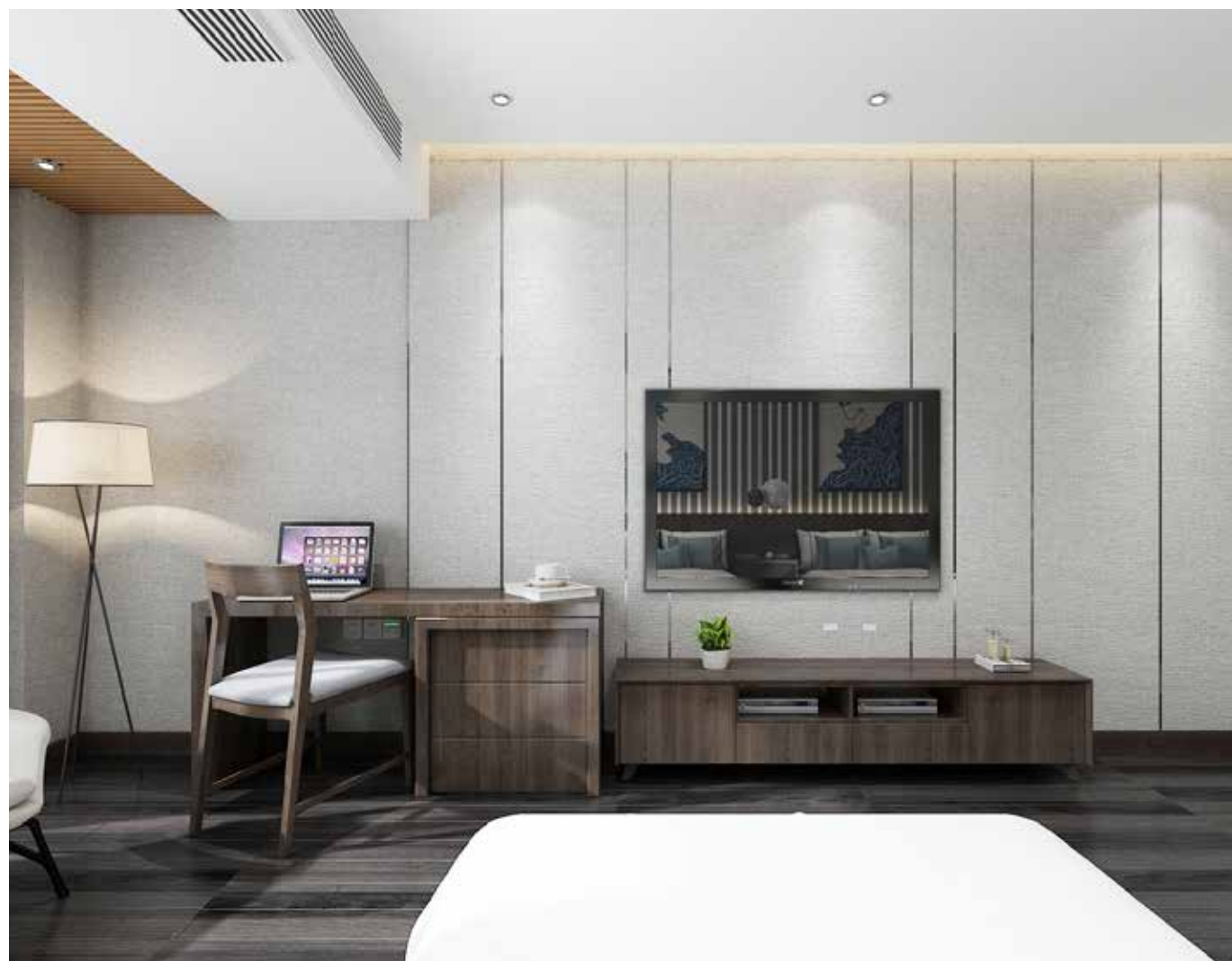


KJRP-86I/MFK-E (Optional)
KJRP-86A/BMFNKE-E (Optional)

Features

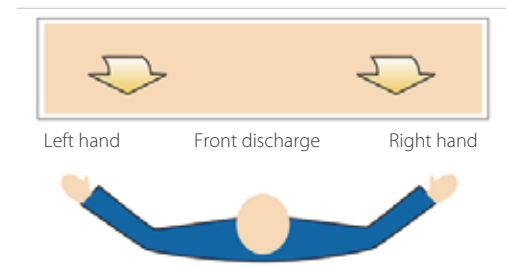
- 2, 3 or 4 row for 2-pipe system and 3 row can be customization for 4-pipe system.
- Versions for standard, A4 and large difference temperature type.
- Washable filter: Iron frame filter is standard, and aluminum frame filter can be customized.
- Compatible with two types of air return: Back return is standard, bottom return is optional.
- Left or right hand piping connections are easily change in filed.
- Available for fresh air intake.
- EAH is optional (for 2-Row, 3-Row, 4-Row Duct).

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



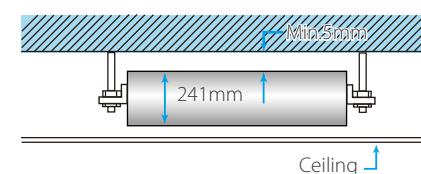
Flexible Installation

Left and right hand piping connections are optional, flexible installation.



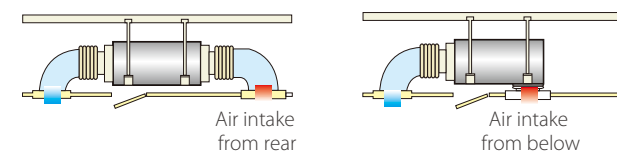
Compact Size

All the units are 241mm high, easy for limited space to installation.



Flexible Air Inlet Port Installation

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

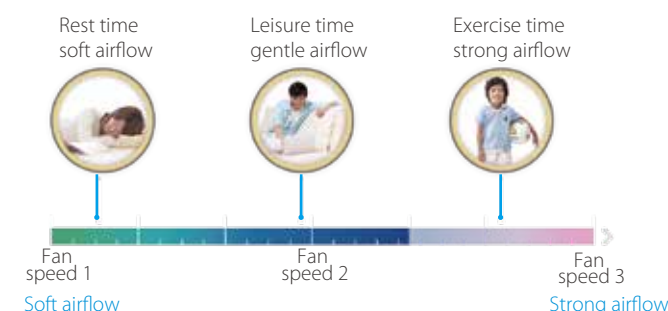


Extension water pan are optional to protect the ceiling from moisture.



Multiple Fan Speeds

The AC Series comes with 3 fan speed option to meet the needs of different indoor conditions.



Control solutions

The duct series controlled by Wired controller, Central controller or BMS need to be customization FCU KIT.

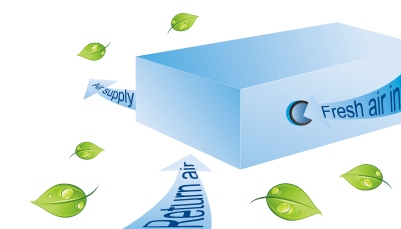


Fresh Air Intake

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

Knock out hole is available in the unit.

Accessories such as booster fan must be supplied on field and installed.



Washable filter

Iron frame filter is standard, and aluminum frame filter can be customized.

Air outlet flange and multi-direction pull-out filter can be customized.



2-Row Duct

Model			MKT2-200G30 MKT2-200EG30	MKT2-300G30 MKT2-300EG30	MKT2-400G30 MKT2-400EG30	MKT2-500G30 MKT2-500EG30	MKT2-600G30 MKT2-600EG30
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)		m³/h	340/255/170	510/385/255	680/510/340	850/640/425	1020/765/510
		CFM	200/150/100	300/225/150	400/300/200	500/375/250	600/450/300
Standard external static pressure		Pa	G12 models: 12; G30 models: 30				
Cooling	Capacity (H/M/L)	kW	2/1.74/1.52	2.7/2.31/2.03	3.6/3.11/2.66	4.4/3.74/3.25	5.5/4.58/4.09
	Water flow rate	L/h	344	464	619	757	946
	Water pressure drop	kPa	5	11	19	22	14
Heating	Capacity (H/M/L)	kW	3.2/2.75/2.37	4.3/3.74/3.23	5.4/4.64/4.05	6.8/5.78/5.07	8.1/6.77/5.92
	Water pressure drop	kPa	4.2	9.5	15.5	18.3	11.8
Power input	12Pa (H/M/L)	W	31/25/22	50/40/35	60/48/42	80/64/56	97/78/68
	30Pa (H/M/L)	W	45/36/32	60/48/42	67/54/47	89/71/62	110/88/77
Auxiliary electric heater (AEH)		W	550	650	1100	1100	1600
Sound pressure level	12Pa (H/M/L)	dB(A)	36/34/29	38/33/29	38/35/31	39/36/32	40/36/33
	30Pa (H/M/L)	dB(A)	41/37/31	41/37/32	42/39/33	45/41/34	46/41/35
Fan motor	Type	Low noise 3-speed fan motor					
	Quantity		1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity		1	2	2	2	2
Coil	Row		2	2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	741×241×522	841×241×522	941×241×522	941×241×522	1161×241×522
Packing size (WxHxD)		mm	790×260×550	890×260×550	990×260×550	990×260×550	1210×260×550
Net weight (non-AEH/with-AEH)		kg	13.9/15.4	16.5/18	19.2/20.7	19.2/20.7	22/24
Gross weight (non-AEH/with-AEH)		kg	16.2/17.7	19/20.5	21.6/23.1	21.6/23.1	25/27
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Model			MKT2-800G30 MKT2-800EG30	MKT2-1000G30 MKT2-1000EG30	MKT2-1200G30 MKT2-1200EG30	MKT2-1400G30 MKT2-1400EG30
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m ³ /h	1360/1020/680	1700/1275/850	2040/1530/1020	2380/1785/1190
		CFM	800/600/400	1000/750/500	1200/900/600	1400/1050/700
Standard external static pressure		Pa	G12 models: 12; G30 models: 30			
Cooling	Capacity (H/M/L)	kW	7.5/6.33/5.68	8.9/7.61/6.41	10.8/9.13/7.93	12.3/10.46/9.27
	Water flow rate	L/h	1290	1531	1858	2116
	Water pressure drop	kPa	14	22	39	46
Heating	Capacity (H/M/L)	kW	11/9.48/8.25	13.5/11.72/10.03	16.5/14.05/12.24	19.5/16.85/14.63
	Water pressure drop	kPa	12.5	19	32.6	40.1
Power input	12Pa (H/M/L)	W	140/112/98	172/138/120	205/164/144	216/173/151
	30Pa (H/M/L)	W	130/104/91	171/137/120	212/170/148	249/200/174
Auxiliary electric heater (AEH)		W	2200	2200	3200	3200
Sound pressure level	12Pa (H/M/L)	dB(A)	42/37/33	44/39/34	46/40/35	48/42/37
	30Pa (H/M/L)	dB(A)	46/41/36	47/43/37	48/44/38	49/44/39
Fan motor	Type	Low noise 3-speed fan motor				
	Quantity		2	2	2	2
Fan	Type	Centrifugal, forward-curved Blades				
	Quantity		4	4	4	4
Coil	Row		2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	1461×241×522	1566×241×522	1856×241×522	2022×241×522
Packing size (WxHxD)		mm	1510×260×550	1615×260×550	1905×260×550	2070×260×550
Net weight (non-AEH/with-AEH)		kg	30.9/33.4	33.4/36.4	38.5/42	42.1/46.1
Gross weight (non-AEH/with-AEH)		kg	34.5/37	37/40	42/45.5	47.5/51.5
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

- Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. The data is the performance in relevant standard external static pressure.
 3. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
 4. Noise is tested in a semi-anechoic test room.
 5. Auxiliary electric heater (AEH) is optional.

3-Row Duct

Model			MKT3-200G12 MKT3-200G30 MKT3-200EG30	MKT3-300G12 MKT3-300G30 MKT3-300EG30	MKT3-400G12 MKT3-400G30 MKT3-400EG30	MKT3-500G12 MKT3-500G30 MKT3-500EG30	MKT3-600G12 MKT3-600G30 MKT3-600EG30
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)		m³/h	340/255/170	510/385/255	680/510/340	850/640/425	1020/765/510
		CFM	200/150/100	300/225/150	400/300/200	500/375/250	600/450/300
Standard external static pressure		Pa	G12 models: 12; G30 models: 30				
Cooling	Capacity (H/M/L)	kW	2.2/1.9/1.68	3.1/2.7/2.3	4/3.4/2.95	4.6/3.96/3.45	5.8/4.88/4.45
	Water flow rate	L/h	378	533	688	791	998
	Water pressure drop	kPa	14	26	18	24	36
Heating	Capacity (H/M/L)	kW	3.5/3.08/2.59	5.3/4.61/3.98	6.8/5.85/5.1	7.9/6.95/6	9.8/8.6/7.4
	Water pressure drop	kPa	10.5	21.8	16.9	22.3	31.6
Power input	12Pa (H/M/L)	W	33/25/22	53/41/35	66/53/48	87/53/44	100/65/55
	30Pa (H/M/L)	W	49/37/33	64/49/42	75/61/54	93/56/47	114/74/63
Auxiliary electric heater (AEH)		W	550	600	1100	1100	1600
Sound pressure level	12Pa (H/M/L)	dB(A)	35/32/26	36/33/27	37/34/28	40/36/30	42/38/32
	30Pa (H/M/L)	dB(A)	41/37/31	42/38/32	43/39/33	44/40/34	45/41/35
Fan motor	Type	Low noise 3-speed fan motor					
	Quantity		1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity		1	2	2	2	2
Coil	Row		3	3	3	3	3
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	741×241×522	841×241×522	941×241×522	941×241×522	1161×241×522
Packing size (WxHxD)		mm	790×260×550	890×260×550	990×260×550	990×260×550	1210×260×550
Net weight (non-AEH/with-AEH)		kg	14.6/16.1	17/18.5	20.2/21.7	20.2/21.7	23/25
Gross weight (non-AEH/with-AEH)		kg	16.9/18.4	19.5/21	22.6/24.1	22.6/24.1	26/28
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Model			MKT3-800G12 MKT3-800G30 MKT3-800EG30	MKT3-1000G12 MKT3-1000G30 MKT3-1000EG30	MKT3-1200G12 MKT3-1200G30 MKT3-1200EG30	MKT3-1400G12 MKT3-1400G30 MKT3-1400EG30
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	1360/1020/680	1700/1275/850	2040/1530/1020	2380/1785/1190
		CFM	800/600/400	1000/750/500	1200/900/600	1400/1050/700
Standard external static pressure		Pa	G12 models: 12; G30 models: 30			
Cooling	Capacity (H/M/L)	kW	8.2/6.88/6.25	9/7.8/6.57	11/9.8/8.35	12.5/10.8/9.44
	Water flow rate	L/h	1410	1548	1892	2150
	Water pressure drop	kPa	39	32	39	45
Heating	Capacity (H/M/L)	kW	13.6/11.97/10.2	16/14.24/12	20.1/18.27/15.43	21/18.7/15.75
	Water pressure drop	kPa	33.8	30.7	34.6	40.1
Power input	12Pa (H/M/L)	W	145/121/108	180/114/97	210/140/120	222/179/155
	30Pa (H/M/L)	W	154/129/114	180/114/97	220/147/126	278/224/194
Auxiliary electric heater (AEH)		W	2000	2200	3200	3200
Sound pressure level	12Pa (H/M/L)	dB(A)	43/39/33	45/41/35	46/42/36	48/44/38
	30Pa (H/M/L)	dB(A)	46/42/36	47/43/37	48/44/38	49/45/39
Fan motor	Type	Low noise 3-speed fan motor				
	Quantity		2	2	2	2
Fan	Type	Centrifugal, forward-curved Blades				
	Quantity		4	4	4	4
Coil	Row		3	3	3	3
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	1461×241×522	1566×241×522	1856×241×522	2022×241×522
Packing size (WxHxD)		mm	1510×260×550	1615×260×550	1905×260×550	2070×260×550
Net weight (non-AEH/with-AEH)		kg	31.9/34.4	34.4/37.4	39.5/43	43.1/47.1
Gross weight (non-AEH/with-AEH)		kg	35.5/38	38.1/41.1	43/46.5	48.4/52.4
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

- Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. The data is the performance in relevant standard external static pressure.
 3. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
 4. Noise is tested in a semi-anechoic test room.
 5. Auxiliary electric heater (AEH) is optional.

4-Row Duct

Model			MKT4-200G30	MKT4-300G30	MKT4-400G30	MKT4-500G30	MKT4-600G30	MKT4-800G30
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)		m³/h	340/255/170	510/385/255	680/510/340	850/640/425	1020/765/510	1360/1020/680
		CFM	200/150/100	300/225/150	400/300/200	500/375/250	600/450/300	800/600/400
Standard external static pressure		Pa	30	30	30	30	30	30
Cooling	Capacity (H/M/L)	kW	2.5/2.16/1.87	3.3/2.85/2.47	4.4/3.72/3.22	4.8/4.18/3.64	6.2/5.38/4.65	8.8/7.43/6.57
	Water flow rate	L/h	430	568	757	826	1066	1514
	Water pressure drop	kPa	2.6	5	8.1	9.8	15.4	12.3
Heating	Capacity (H/M/L)	kW	4.1/3.51/3.03	5.8/5.05/4.35	7.1/6.11/5.33	8.5/7.04/6.28	10.5/9.03/7.77	14.5/12.38/10.88
	Water pressure drop	kPa	2.2	4.2	6.9	8.1	12.7	10
Power input (H/M/L)		W	50/40/35	65/52/46	80/64/56	98/78/69	110/88/77	155/124/109
Auxiliary electric heater (AEH)		W	500	600	1000	1000	1500	2000
Sound pressure level		dB(A)	37/33/27	38/34/28	38/35/29	40/35/30	41/36/31	42/37/32
Fan motor	Type	Low noise 3-speed fan motor						
	Quantity		1	1	1	1	1	2
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		1	2	2	2	2	4
Coil	Row		4	4	4	4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	741x241x522	841x241x522	941x241x522	941x241x522	1161x241x522	1461x241x522
Packing size (WxHxD)		mm	790x260x550	890x260x550	990x260x550	990x260x550	1210x260x550	1510x260x550
Net weight		kg	15.3	17.5	20.7	20.7	23.5	32.9
Gross weight		kg	17.6	20	23.1	23.1	26.5	36.5
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Model			MKT4-1000G30	MKT4-1200G30	MKT4-1400G30
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	1700/1275/850	2040/1530/1020	2380/1785/1190
		CFM	1000/750/500	1200/900/600	1400/1050/700
Standard external static pressure		Pa	30	30	30
Cooling	Capacity (H/M/L)	kW	9.5/8.18/7.06	11.8/9.82/8.74	13/11.23/9.83
	Water flow rate	L/h	1634	2030	2236
	Water pressure drop	kPa	18	21.2	24.7
Heating	Capacity (H/M/L)	kW	16.3/13.45/12.05	16.5/14.05/12.23	17/14.31/12.69
	Water pressure drop	kPa	15.4	17.6	20.8
Power input (H/M/L)		W	180/144/126	220/176/154	275/220/193
Auxiliary electric heater (AEH)		W	2000	3000	3000
Sound pressure level		dB(A)	44/39/33	45/40/34	47/42/36
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity		2	2	2
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity		4	4	4
Coil	Row		4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	1566x241x522	1856x241x522	2022x241x522
Packing size (WxHxD)		mm	1615x260x550	1905x260x550	2070x260x550
Net weight		kg	35.4	40.5	44.1
Gross weight		kg	39.1	44	49.4
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4

- Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. The data is the performance in relevant standard external static pressure.
 3. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
 4. Noise is tested in a semi-anechoic test room.
 5. Auxiliary electric heater (AEH) is optional.

A4 Type Duct

Model			MKT4-800G50-A4	MKT4-1000G50-A4	MKT4-1200G50-A4
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	1400/1342/1200	1650/1527/1405	2040/1851/1666
		CFM	856/790/706	970/900/827	1206/1090/981
Standard external static pressure		Pa	50	50	50
Cooling	Capacity (H/M/L)	kW	7.92/7.56/7.09	8.15/7.93/7.54	10.8/10.17/9.55
	Water flow rate	L/h	1363	1402	1890
	Water pressure drop	kPa	13.5	21.4	27.8
Heating	Capacity (H/M/L)	kW	10.42/9.89/9.12	11.25/10.72/10.06	14.3/13.23/12.22
	Water pressure drop	kPa	39.7	23.3	24.8
Power input (H/M/L)		W	144/124/105	176/146/128	320/284/250
Sound pressure level		dB(A)	48.4/47.9/46.6	49.5/48.1/47.3	50.9/50/48.5
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity		1	1	1
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity		2	2	2
Coil	Row		4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	1180x340x612	1180x340x612	1369x340x612
Packing size (WxHxD)		mm	1310x380x693	1310x380x693	1490x380x693
Net weight		kg	39.3	40.8	46.3
Gross weight		kg	47	49.6	56.4
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4

Model			MKT4-1400G50-A4	MKT4-1600G50-A4	MKT4-1800G50-A4	MKT4-2000G50-A4
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	2420/1851/1666	2430/1917/1742	3380/2239/1878	3670/2544/2199
		CFM	1427/1090/981	1431/1128/1025	1990/1318/1105	2160/1497/1294
Standard external static pressure		Pa	50	50	50	50
Cooling	Capacity (H/M/L)	kW	12.14/10.17/9.55	12.19/10.54/9.87	16.16/12.35/11.01	17.34/13.75/12.44
	Water flow rate	L/h	2089	2096	2779	2983
	Water pressure drop	kPa	32.5	33.4	58.3	61.5
Heating	Capacity (H/M/L)	kW	16.08/13.23/12.22	16.55/13.83/12.9	21.7/15.79/13.91	23.4/17.92/16.08
	Water pressure drop	kPa	29.2	30.0	52.3	52.9
Power input (H/M/L)		W	392/284/250	482/338/296	538/358/308	583/387/334
Sound pressure level		dB(A)	51.7/50/49.5	52.9/50.7/50	53.6/51.1/50.2	54.4/52.7/51.6
Fan motor	Type		Low noise 3-speed fan motor			
	Quantity		1	1	1	1
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		2	2	3	3
Coil	Row		4	4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (W×H×D)		mm	1369×340×612	1369×340×612	1500×340×612	1500×340×612
Packing size (W×H×D)		mm	1490×380×693	1490×380×693	1620×380×693	1620×380×693
Net weight		kg	46.3	46.3	54.8	54.8
Gross weight		kg	56.4	56.4	64.6	64.6
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

- Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. The data is the performance in relevant standard external static pressure.
 3. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
 4. Noise is tested in a semi-anechoic test room.

District Cooling Duct

Model		MKS4-200G30	MKS4-300G30	MKS4-400G30	MKS4-500G30	MKS4-600G30	MKS4-800G50-A4
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m³/h	430/380/340	600/540/480	700/630/520	900/810/720	1160/1040/930	1400/1342/1200
	CFM	253/224/200	353/318/282	412/370/305	530/476/424	682/612/547	824/789/705
Standard external static pressure		Pa	30	30	30	30	50
Cooling	Capacity (H/M/L)	kW	2.05/1.742/1.55	2.61/2.21/1.98	4.03/3.42/3.06	4.57/3.88/3.47	6.39/5.43/4.85
	Water flow rate	L/h	196	249	385	437	610.6
	Water pressure drop	kPa	10	10	21	25	53.8
Power input (H/M/L)		W	47/38/33	65/52/46	78/62/55	92/74/64	116/93/81
Sound pressure level		dB(A)	38/33/27	39/34/28	39/35/29	41/35/30	42/36/31
Fan motor	Type	Low noise 3-speed fan motor					
	Quantity	1					
Fan	Type	Centrifugal, forward-curved blades					
	Quantity	1	2	2	2	2	2
Coil	Row	4					
	Max. working pressure	MPa	1.6				
	Diameter	mm	Φ9.52				
Net dimensions (WxHxD)		mm	741x241x522	841x241x522	941x241x522	1161x241x522	1180x340x612
Packing size (WxHxD)		mm	790x260x550	890x260x550	990x260x550	1210x260x550	1310x380x693
Net weight		kg	15.3	17.5	20.7	23.5	39.3
Gross weight		kg	17.6	20	23.1	26.5	47
Water inlet/outlet pipe		inch	RC3/4				
Drain pipe		inch	ZG3/4				

Model		MKS4-1000G50-A4	MKS4-1200G50-A4	MKS4-1400G50-A4	MKS4-1600G50-A4	MKS4-1800G50-A4	MKS4-2000G50-A4
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m³/h	1650/1527/1405	2040/1851/1666	2420/1850/1657	2430/1917/1742	3380/2239/1878	3660/2544/2199
	CFM	970/898/826	1200/1089/980	1424/1088/975	1431/1128/1025	1988/1317/1105	2153/1496/1295
Standard external static pressure		Pa	50	50	50	50	50
Cooling	Capacity (H/M/L)	kW	7.57/6.43/5.75	10.11/8.59/7.68	11.5/9.7/8.74	11.74/9.97/8.92	14.74/12.52/11.2
	Water flow rate	L/h	723	966	1099	1122	1408
	Water pressure drop	kPa	16.3	21	25.3	27.8	37.9
Power input (H/M/L)		W	176/141/123	320/256/224	392/314/274	482/386/337	538/430/376
Sound pressure level		dB(A)	49/48/47	51/50/48	52/50/49	53/51/50	54/51/50
Fan motor	Type	Low noise 3-speed fan motor					
	Quantity	1					
Fan	Type	Centrifugal, forward-curved blades					
	Quantity	2	2	2	2	3	3
Coil	Row	4					
	Max. working pressure	MPa	1.6				
	Diameter	mm	Φ9.52				
Net dimensions (WxHxD)		mm	1180x340x612	1369x340x612	1369x340x612	1500x340x612	1500x340x612
Packing size (WxHxD)		mm	1310x380x693	1490x380x693	1490x380x693	1620x380x693	1620x380x693
Net weight		kg	40.8	46.3	46.3	54.8	54.8
Gross weight		kg	49.6	56.4	56.4	64.6	64.6
Water inlet/outlet pipe		inch	RC3/4				
Drain pipe		inch	ZG3/4				

- Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. The data are test under standard external static pressure.
 3. Cooling conditions: entering water 5.5°C, temperature rise 9°C, entering air temperature 27°C DB/19°C WB.
 4. Noise is tested in a semi-anechoic test room.

4-Pipe Duct

Model		MKT3-200FG30	MKT3-300FG30	MKT3-400FG30	MKT3-500FG30	MKT3-600FG30
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)	m³/h	340/255/170	510/385/255	680/510/340	850/640/425	1020/765/510
	CFM	200/150/100	300/225/150	400/300/200	500/375/250	600/450/300
Standard external static pressure		Pa	G12 models: 12; G30 models: 30			
Cooling	Capacity (H/M/L)	kW	2/1.76/1.52	2.7/2.35/2.13	3.6/3.15/2.76	4.3/3.74/3.32
	Water flow rate	L/h	344	464	619	740
	Water pressure drop	kPa	7.6	14.4	8.2	9.5
Heating	Capacity (H/M/L)	kW	3/2.64/2.22	4/3.48/3	5.2/4.47/3.9	5.7/5.02/4.33
	Water flow rate	l/h	258	344	447	490
	Water pressure drop	kPa	6.8	12.5	23.5	24.0
Power input	12Pa (H/M/L)	W	33/26/23	53/38/31	66/48/42	87/54/44
	30Pa (H/M/L)	W	49/39/34	64/50/42	75/55/48	96/58/48
Sound pressure level	12Pa (H/M/L)	dB(A)	35/32/26	36/33/27	37/34/28	40/36/30
	30Pa (H/M/L)	dB(A)	41/37/31	42/38/32	43/39/33	44/40/34
Fan motor	Type	Low noise 3-speed fan motor				
	Quantity	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades				
	Quantity	1	2	2	2	2
Coil	Row	3	3	3	3	3
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	741x241x522	841x241x522	941x241x522	941x241x522
Packing size (WxHxD)		mm	790x260x555	890x260x555	990x260x555	990x260x555
Net weight		kg	15.1	17.5	20.7	23.5
Gross weight		kg	17.4	20	23.1	26.5
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Model		MKT3-800FG30	MKT3-1000FG30	MKT3-1200FG30	MKT3-1400FG30
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)	m³/h	1360/1020/680	1700/1275/850	2040/1530/1020	2380/1785/1190
	CFM	800/600/400	1000/750/500	1200/900/600	1400/1050/700
Standard external static pressure		Pa	G12 models: 12; G30 models: 30		
Cooling	Capacity (H/M/L)	kW	6.8/5.78/5.11	7.8/6.74/5.88	10.2/8.89/7.85
	Water flow rate	L/h	1170	1342	1754
	Water pressure drop	kPa	18.8	30.0	40.3
Heating	Capacity (H/M/L)	kW	9.6/8.45/7.2	10.8/9.61/8.1	13.5/12.15/10.26
	Water flow rate	l/h	826	929	1161
	Water pressure drop	kPa	20.7	34.7	28.6
Power input	12Pa (H/M/L)	W	145/130/111	180/104/88	210/140/123
	30Pa (H/M/L)	W	154/132/113	193/114/97	230/157/131
Sound pressure level	12Pa (H/M/L)	dB(A)	43/39/33	45/41/35	46/42/36
	30Pa (H/M/L)	dB(A)	46/42/36	47/43/37	48/44/38
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity	2	2	2	2
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity	4	4	4	4
Coil	Row	3	3	3	3
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52
Net dimensions (WxHxD)		mm	1461x241x522	1566x241x522	1856x241x522
Packing size (WxHxD)		mm	1510x260x555	1615x260x555	1905x260x555
Net weight		kg	32.4	34.9	40
Gross weight		kg	36	38.6	43.5
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4

- Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 70°C, leaving water 60°C, Entering air temperature 20°C DB.
 3. Noise is tested in a semi-anechoic test room.

High Static Pressure Duct



Model: 800/1000/1200/1400/1600/1800/2200CFM



RM05+FCU KIT
Optional



KJRP-86I/MFK-E (Optional)
KJRP-86A/BMFNKD-E (Optional)

Features

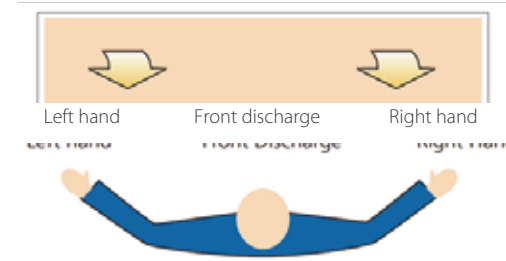
- Large air volume and capacity, high static pressure(Up to 100Pa).
- Easy to clean and change air filter.
- EAH is optional.
- Air return flange and air plenum with filter are standard, air return from the back side.
- 220V wired controller is optional.
- Standard extended drainage pan for protecting ceiling better.
- Four-speed motor with super-high speed reserved.
- Pipe connection from left or right.

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



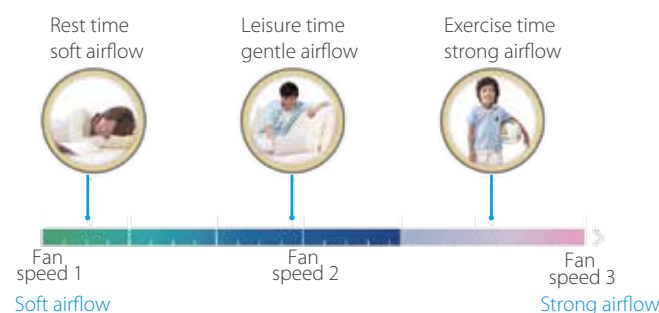
Flexible Installation

Left and right hand piping connections are optional, flexible installation.



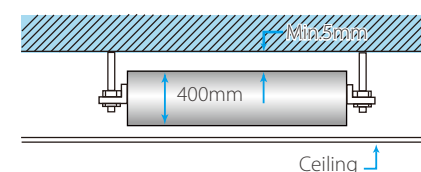
Multiple Fan Speeds

The AC Series comes with 3 fan speed option to meet the needs of different indoor conditions.



Compact Size

All the units are 400mm high, easy for limited space installation.



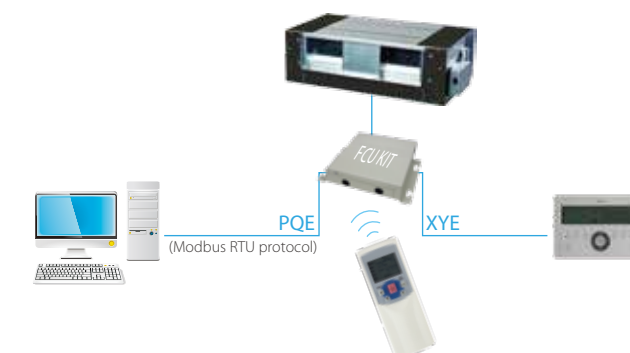
Easy to clean and change air filter

Changing the air filter only needs to loosen a screw at the air supply side to pull out the air filter, easy and effective operation.



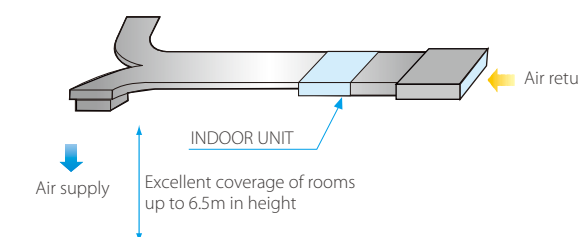
Control solutions

The duct series controlled by Wired controller, Centralized controller or BMS need to be customization FCU KIT.



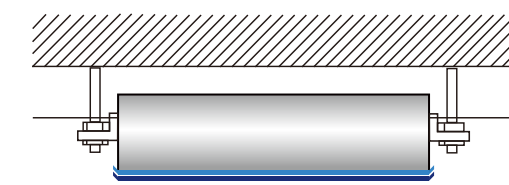
Flexible Duct Design

High Static Pressure Duct supplies a wide static pressure from 0Pa to 100Pa which can support short to long duct with high ceiling air supply.



Double-skin Drainage Pan

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



Electric heater is optional

Different models can be customized with different electrical auxiliary heat capacity.



High Static Pressure Duct

Model			MKT3H-800G70	MKT3H-1000G70	MKT3H-1200G70	MKT3H-1400G70
			MKT3H-800EG70	MKT3H-1000EG70	MKT3H-1200EG70	MKT3H-1400EG70
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	1360/1220/1090	1700/1530/1380	2040/1880/1610	2380/2120/1860
		CFM	800/720/640	1000/900/810	1200/1105/950	1400/1250/1095
Standard external static pressure		Pa	70	70	70	70
Cooling	Capacity (H/M/L)	kW	6.6/6.37/6.12	8.8/8.19/7.57	10/9.44/8.53	12/11.47/10.24
	Water flow rate	l/h	1135	1514	1720	2064
	Water pressure drop	kPa	8	24	24	36
Heating	Capacity (H/M/L)	kW	9.7/8.54/7.18	13.2/11.48/9.9	15/12.9/11.25	17.9/15.75/13.6
	Water pressure drop	kPa	8.4	25	23.4	34.2
Power input (H/M/L)		W	320/300/285	350/320/300	350/320/290	350/300/285
Auxiliary electric heater (AEH)		W	5000	5000	5000	5000
Sound pressure level		dB(A)	49/42/35	50/43/36	51/44/37	52/45/38
Fan motor	Type	Low noise 3-speed fan motor				
	Quantity		1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades				
	Quantity		1	1	1	1
Coil	Row		2	3	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions(W×H×D)		mm	946×400×816	946×400×816	946×400×816	946×400×816
Packing size (non-AEH/with-AEH)		mm	Left connection: 1075×480×857/1075×480×925			
Net weight (non-AEH/with-AEH)		kg	50/53	52/55	52/55	54/57
Gross weight (non-AEH/with-AEH)		kg	55/58	57/60	57/60	59/62
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

- Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. The data is the performance in relevant standard external static pressure.
 3. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
 4. Noise is tested in a semi-anechoic test room.
 5. The external static pressure test condition is the same as Eurovent conditions(External static pressure is different for each models.)
 6. Auxiliary electric heater (AEH) is optional.

Model			MKT3H-1600G100	MKT3H-1800G100	MKT3H-2200G100
			MKT3H-1600EG100	MKT3H-1800EG100	MKT3H-2200EG100
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	2720/2450/2170	3060/2750/2450	3740/3360/2990
		CFM	1600/1440/1280	1800/1620/1440	2200/1980/1760
Standard external static pressure		Pa	100	100	100
Cooling	Capacity (H/M/L)	kW	14.1/13.03/11.87	15.8/14.6/13.46	19.9/18.58/17.24
	Water flow rate	l/h	2425	2718	3423
	Water pressure drop	kPa	60	78	110
Heating	Capacity (H/M/L)	kW	21.2/18.23/15.69	23.8/20.94/17.85	30/26.7/22.5
	Water pressure drop	kPa	57	74	105
Power input (H/M/L)		W	550/520/500	800/680/620	950/860/760
Auxiliary electric heater (AEH)		W	9500	9500	9500
Sound pressure level		dB(A)	54/47/40	60/53/46	61/54/47
Fan motor	Type	Low noise 3-speed fan motor			
	Quantity		1	1	1
Fan	Type	Centrifugal, forward-curved Blades			
	Quantity		2	2	2
Coil	Row		3	3	3
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52
Net dimensions(W×H×D)		mm	1290×400×809	1290×400×809	1290×400×809
Packing size (non-AEH/with-AEH)		mm	Left connection: 1448×460×877/1448×460×950		
Net weight (non-AEH/with-AEH)		kg	76/82	76/82	76/82
Gross weight (non-AEH/with-AEH)		kg	83/89	83/89	83/89
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4

- Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. The data is the performance in relevant standard external static pressure.
 3. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
 4. Noise is tested in a semi-anechoic test room.
 5. The external static pressure test condition is the same as Eurovent conditions(External static pressure is different for each models.)
 6. Auxiliary electric heater (AEH) is optional.

Wall Mounted Series



Model: 250/300/400/500/600 CFM



R51
Standard

Features

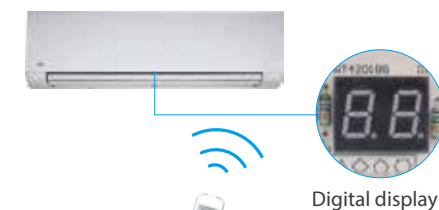
- Display shut off (for Type A and P panels though Wireless Remote Controllers RM12F/BGF-E).
- Built-in 3-way electromagnetic valve.
- Remote controller as standard, wired controller is optional.
- Easy and low cost installation.
- The panel can be easily removed, simple maintenance and easy to change filter.
- Multi-directional outlet pipe feature: left\right\rear, to meet the needs of different rooms.
- Compatible with 0-10V control function.
- EAH is optional.

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



Digital Display On/Off

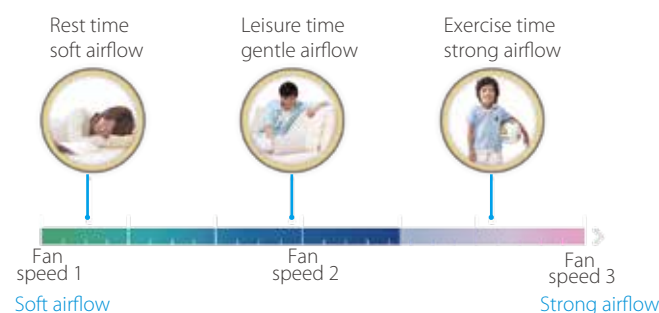
Indoor unit displays can be shut off at night, creating a better environment for rest.



RM12F/BGF-E

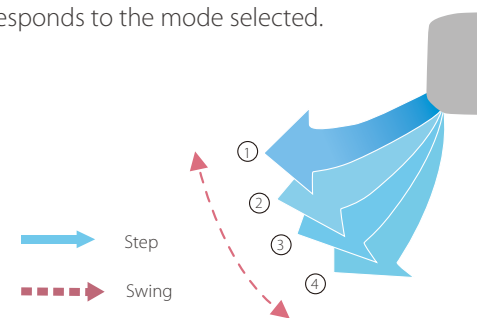
Multiple Fan Speeds

The AC Series comes with 3 fan speed option to meet the needs of different indoor conditions.



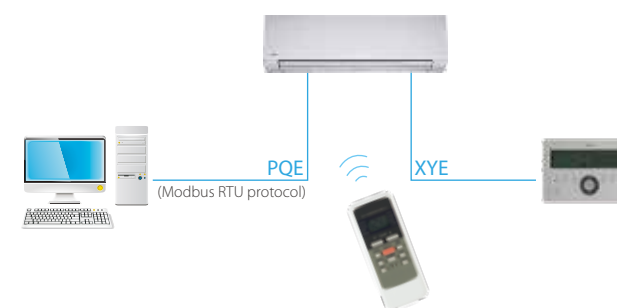
Auto Swing Louver

The Auto Swing Louver function ensures that the air direction corresponds to the mode selected.



Control solutions

The fan coil units can be connected to MDV central controllers through the customized XYE port, also can be connected to Modbus gateway through the customized PQE port with Modbus RTU protocol.



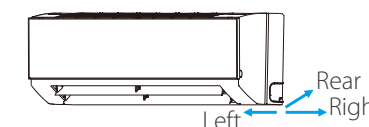
Variety stylish Panel

Variety stylish panel with three options (A Type, P Type and S Type), perfect fusion in all kinds of decoration.



Flexible Pipe Outlet Direction

Multi-outlet pipe method for both refrigerant pipe and drain pipe: left/right/rear, more flexible for installation.



Easy Maintenance

Removable front panel making maintenance convenient.



Exposed Installation, No Need Ceilings

The Wall Mounted can be installed against a wall, no need ceilings, simplifying installation.



Wall Mounted (A Type)

Model			MKG-250-C	MKG-300-C	MKG-400-C	MKG-500-C	MKG-600-C
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)		m³/h	425/390/350	510/470/390	680/550/460	850/745/620	1020/915/780
		CFM	250/230/205	300/275/230	400/325/270	500/440/365	600/540/460
Cooling	Capacity (H/M/L)	kW	2.63/2.41/2.16	2.97/2.47/2.12	3.28/2.83/2.41	4.25/3.85/3.32	5/4.47/3.97
	Water flow rate	L/h	452	511	564	731	860
	Water pressure drop	kPa	29.4	35.6	43.5	31.8	42.5
Heating	Capacity (H/M/L)	kW	3.36/3.1/2.79	3.91/3.26/2.77	4.37/3.73/3.17	5.81/5.17/4.43	6.7/6/5.28
	Water pressure drop	kPa	27.3	32.9	40.8	30.2	39.7
Power input (H/M/L)		W	24/19/17	37/29/26	40/32/28	50/40/35	66/53/46
Auxiliary electric heater (AEH)		W	750	750	750	900	900
Sound pressure level		dB(A)	30/24/20	35/29/24	37/31/26	39/33/28	40/34/29
Fan motor	Type	Low noise 3-speed fan motor					
	Quantity		1	1	1	1	1
Fan	Type		Tangential fan	Tangential fan	Tangential fan	Tangential fan	Tangential fan
	Quantity		1	1	1	1	1
Coil	Row		2	2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7	Φ7	Φ7
Net dimensions (W×H×D)		mm	915×290×233	915×290×233	915×290×233	1072×315×237	1072×315×237
Packing size (W×H×D)		mm	1020×390×315	1020×390×315	1020×390×315	1180×415×315	1180×415×315
Net weight		kg	13	13	13.3	15.8	15.8
Gross weight		kg	16.3	16.3	16.7	19.4	19.4
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ20	ODΦ20	ODΦ20	ODΦ20	ODΦ20

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
 Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
3. Noise is tested in a semi-anechoic test room.

Wall Mounted (P Type)

Model			MKG-250-D	MKG-300-D	MKG-400-D	MKG-500-D	MKG-600-D
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)		m³/h	425/390/350	510/470/390	680/550/460	850/745/620	1020/915/780
		CFM	250/230/205	300/275/230	400/325/270	500/440/365	600/540/460
Cooling	Capacity (H/M/L)	kW	2.63/2.41/2.16	2.97/2.47/2.12	3.28/2.83/2.41	4.25/3.85/3.32	5/4.47/3.97
	Water flow rate	L/h	452	511	564	731	860
	Water pressure drop	kPa	29.4	35.6	43.5	31.8	42.5
Heating	Capacity (H/M/L)	kW	3.36/3.1/2.79	3.91/3.26/2.77	4.37/3.73/3.17	5.81/5.17/4.43	6.7/6/5.28
	Water pressure drop	kPa	27.3	32.9	40.8	30.2	39.7
Power input (H/M/L)		W	24/19/17	37/29/26	40/32/28	50/40/35	66/53/46
Auxiliary electric heater (AEH)		W	750	750	750	900	900
Sound pressure level		dB(A)	30/24/20	35/29/24	37/31/26	39/33/28	40/34/29
Fan motor	Type	Low noise 3-speed fan motor					
	Quantity		1	1	1	1	1
Fan	Type		Tangential fan	Tangential fan	Tangential fan	Tangential fan	Tangential fan
	Quantity		1	1	1	1	1
Coil	Row		2	2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7	Φ7	Φ7
Net dimensions (W×H×D)		mm	915×290×229	915×290×229	915×290×229	1072×315×232	1072×315×232
Packing size (W×H×D)		mm	1020×390×315	1020×390×315	1020×390×315	1180×415×315	1180×415×315
Net weight		kg	13	13	13.3	15.8	15.8
Gross weight		kg	16.3	16.3	16.7	19.4	19.4
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ20	ODΦ20	ODΦ20	ODΦ20	ODΦ20

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
 Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
3. Noise is tested in a semi-anechoic test room.

Wall Mounted (S Type)

Model			MKG-250-B	MKG-300-B	MKG-400-B	MKG-500-B	MKG-600-B
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)		m³/h	425/390/350	510/470/390	680/550/460	850/745/620	1020/915/780
		CFM	250/230/205	300/275/230	400/325/270	500/440/365	600/540/460
Cooling	Capacity (H/M/L)	kW	2.63/2.41/2.16	2.97/2.47/2.12	3.28/2.83/2.41	4.25/3.85/3.32	5/4.47/3.97
	Water flow rate	L/h	452	511	564	731	860
	Water pressure drop	kPa	29.4	35.6	43.5	31.8	42.5
Heating	Capacity (H/M/L)	kW	3.36/3.1/2.79	3.91/3.26/2.77	4.37/3.73/3.17	5.81/5.17/4.43	6.7/6/5.28
	Water pressure drop	kPa	27.3	32.9	40.8	30.2	39.7
Power input (H/M/L)		W	24/19/17	37/29/26	40/32/28	50/40/35	66/53/46
Auxiliary electric heater (AEH)		W	750	750	750	900	900
Sound pressure level		dB(A)	30/24/20	35/29/24	37/31/26	39/33/28	40/34/29
Fan motor	Type	Low noise 3-speed fan motor					
	Quantity		1	1	1	1	1
Fan	Type		Tangential fan	Tangential fan	Tangential fan	Tangential fan	Tangential fan
	Quantity		1	1	1	1	1
Coil	Row		2	2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7	Φ7	Φ7
Net dimensions (W×H×D)		mm	915×290×230	915×290×230	915×290×230	1072×315×230	1072×315×230
Packing size (W×H×D)		mm	1020×390×315	1020×390×315	1020×390×315	1180×415×315	1180×415×315
Net weight		kg	13	13	13.3	15.8	15.8
Gross weight		kg	16.3	16.3	16.7	19.4	19.4
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ20	ODΦ20	ODΦ20	ODΦ20	ODΦ20

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 50°C, the same water flow as the cooling conditions, Entering air temperature 20°C DB.
3. Noise is tested in a semi-anechoic test room.

2nd Generation Ceiling&Floor series



Model: 150/250/350/500/700/800 CFM



KJRP-86I/MFK-E (Optional)
KJRP-86A/BMFNKD-E(Optional)

Features

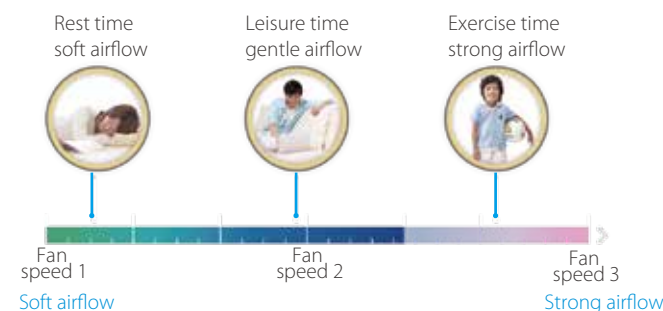
- 3 or 4 rows coil are optional for whole series .
- 2-Pipe and 4-Pipe are optional for whole series.
- Ultra-thin with 200 mm thickness.
- Floor standing/Horizontal/ Concealed type installation available (For floor standing : The footing is optional).
- The wired controller(KJRP-86I/MFK-E or KJRP-86A/BMFNKD-E) can be installed inside the unit.

Floor standing unit with multi casing options can be installed quickly and easily in new or existing facilities in a variety of applications



Multiple Fan Speeds

The AC Series comes with 3 fan speed option to meet the needs of different indoor conditions.



Multiple Appearance Options

The Floor Standing Unit has three appearance options to meet different installation requirement, the H3 (concealed) unit is designed to be concealed in walls while the H1 (front air intake) and H2 (underside air intake) offer a choice of air intake options.

**Concealed Type
H3 Series**



**Exposed Type
(air return from bottom)
H2 Series**

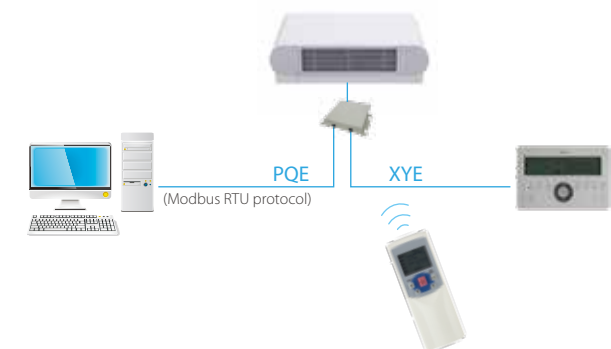


**Exposed Type
(air return from side)
H1 Series**



Control solutions

The fan coil units can be connected to MDV central controllers or BMS through the customized FCU KIT.

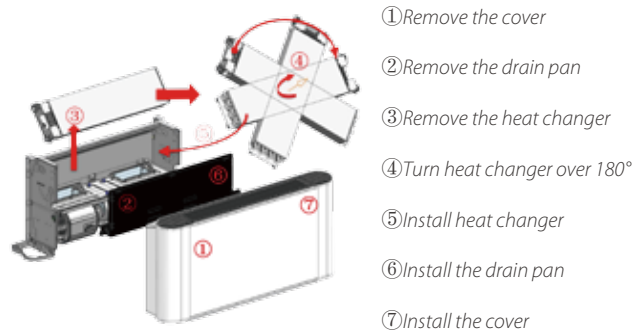


Wired Controller Easy Installation

A place for wired controller is reserved on the surface of the unit, KJRP-86I/MFK-E and KJRP-86A/BMFKND-E can be perfectly installed.



Right/Left connection easy change



Ease of Installation and Maintenance

The ceiling and floor unit offers exposed installation. The installation and maintenance is easy. The maintenance of the machine is quite easy and the key components can be accessed from the bottom of the machine.



Ceiling and Floor Installation Option

The unit is uniquely designed with the possibility to be installed beneath the ceiling or sitting on the floor to suit any interior design requirements.



2- Pipe 2nd Generation Ceiling&Floor

Model		MKH1-150-R3	MKH1-150-R4	MKH1-250-R3	MKH1-250-R4	MKH1-350-R3	MKH1-350-R4
Power supply		220-240/1/50					
Air flow (H/M/L)	m³/h	245/160/135	245/180/130	380/245/140	380/250/160	580/435/310	580/430/310
	CFM	144/94/79	144/106/76	224/144/82	224/147/94	341/256/182	341/253/182
External static pressure		0					
Cooling	Total Capacity (H/M/L)	kW	1.58/1.17/1.04	2.16/1.78/1.35	2.51/1.92/1.32	2.72/2.02/1.41	3.75/3.10/2.40
	Water flow rate (H/M/L)	m³/h	0.27/0.20/0.18	0.37/0.31/0.23	0.43/0.33/0.23	0.47/0.35/0.24	0.64/0.53/0.41
	Water pressure drop (H/M/L)	kPa	15.1/9.0/7.1	31.9/23.2/14.1	17.1/11.7/5.2	23.9/14.0/7.5	37.3/26.4/16.5
Heating	Capacity (H/M/L)	kW	1.77/1.24/1.08	2.26/1.79/1.36	2.80/2.01/1.38	2.81/2.04/1.43	3.99/3.21/2.41
	Water flow rate (H/M/L)	m³/h	0.30/0.21/0.19	0.39/0.31/0.23	0.48/0.34/0.24	0.48/0.35/0.25	0.68/0.55/0.41
	Water pressure drop (H/M/L)	kPa	15.0/7.9/6.4	31.9/21.5/14.1	16.6/9.8/5.2	22.5/12.6/6.1	34.6/24.2/15.4
Power input (H/M/L)		W	35/17/14	40/24/15	47/26/14	47/26/15	51/32/19
Sound power level (H/M/L)		dB(A)	47/36/34	52/47/39	47/38/32	48/39/33	52/45/37
Fan motor	Type	AC fan motor					
	Quantity	1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity	1	1	2	2	2	2
Coil	Row	3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94
Body	Net dimensions (WxHxD)	mm	790x495x211	790x495x211	1020x495x211	1020x495x211	1240x495x211
	Packing size (WxHxD)	mm	895x595x300	895x595x300	1125x595x300	1125x595x300	1345x595x300
	Net weight	kg	16.3	16.7	20.0	20.8	24.0
	Gross weight	kg	21.8	22.7	26.8	26.8	31.0
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODØ18.5	ODØ18.5	ODØ18.5	ODØ18.5	ODØ18.5

Model		MKH1-500-R3	MKH1-500-R4	MKH1-700-R3	MKH1-700-R4	MKH1-800-R3	MKH1-800-R4
Power supply		220-240/1/50					
Air flow (H/M/L)	m³/h	780/550/380	780/560/390	1050/750/490	1050/800/520	1100/920/660	1050/910/670
	CFM	459/324/224	459/329/229	618/441/288	618/471/306	647/541/388	618/535/394
External static pressure		0					
Cooling	Total Capacity (H/M/L)	kW	4.59/3.75/2.88	5.21/4.14/3.22	5.29/4.43/3.27	6.16/5.29/3.87	6.22/5.50/4.36
	Water flow rate (H/M/L)	m³/h	0.79/0.64/0.49	0.89/0.71/0.55	0.91/0.76/0.56	1.06/0.91/0.66	1.07/0.94/0.75
	Water pressure drop (H/M/L)	kPa	56.1/39.5/25.0	59.9/40.4/26.0	47.5/32.6/18.7	36.8/26.7/14.8	38.4/31.4/19.7
Heating	Capacity (H/M/L)	kW	5.13/3.90/2.96	5.33/4.25/3.23	5.42/4.50/3.35	6.53/5.30/3.92	6.94/6.00/4.62
	Water flow rate (H/M/L)	m³/h	0.88/0.67/0.51	0.91/0.73/0.55	0.93/0.77/0.57	1.12/0.91/0.67	1.19/1.03/0.79
	Water pressure drop (H/M/L)	kPa	56.0/36.8/23.0	59.4/36.8/21.2	51.0/34.0/18.6	38.5/26.2/13.4	40.7/28.8/17.0
Power input (H/M/L)		W	91/54/34	92/54/35	124/98/68	117/93/66	118/93/65
Sound power level (H/M/L)		dB(A)	61/52/43	61/52/43	65/57/46	65/57/47	66/61/52
Fan motor	Type	AC fan motor					
	Quantity	1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity	2	2	3	3	3	3
Coil	Row	3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94
Body	Net dimensions (WxHxD)	mm	1240x495x211	1240x495x211	1360x495x211	1360x495x211	1360x591x211
	Packing size (WxHxD)	mm	1345x595x300	1345x595x300	1465x595x300	1465x595x300	1465x695x300
	Net weight	kg	25.5	26.3	27.3	28.5	31.7
	Gross weight	kg	32.0	33.4	34.8	36.0	40.2
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODØ18.5	ODØ18.5	ODØ18.5	ODØ18.5	ODØ18.5

Notes:
 1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. Cooling conditions: Entering water 7 °C, leaving water 12 °C, Entering air temperature 27 °C DB/19 °C WB.
 Heating conditions: Entering water 45 °C, leaving water 40 °C, Entering air temperature 20 °C DB/15 °C WB.
 3. Noise is tested in a reverberation chamber.

2- Pipe 2nd Generation Ceiling&Floor

Model			MKH2-150-R3	MKH2-150-R4	MKH2-250-R3	MKH2-250-R4	MKH2-350-R3	MKH2-350-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)	m³/h		255/165/142	255/192/139	400/273/180	425/284/184	595/447/319	595/450/319
	CFM		150/97/84	150/113/82	235/161/106	250/167/109	350/263/188	350/265/188
External static pressure		Pa	0					
Cooling	Total Capacity (H/M/L)	kW	1.65/1.22/1.09	2.25/1.85/1.40	2.65/2.02/1.40	3.05/2.26/1.58	3.85/3.19/2.46	4.20/3.38/2.48
	Water flow rate (H/M/L)	L/h	283/209/186	386/317/241	454/346/240	523/387/272	660/546/422	720/580/425
	Water pressure drop (H/M/L)	kPa	15.75/9.33/7.37	33.19/22.37/14.64	18.03/11.18/5.48	26.71/15.66/8.42	38.23/27.11/16.96	41.15/27.07/15.71
Heating	Capacity (H/M/L)	kW	1.85/1.29/1.13	2.35/1.87/1.42	3.05/2.24/1.52	3.15/2.28/1.60	4.10/3.30/2.48	4.30/3.43/2.52
	Water flow rate (H/M/L)	L/h	317/222/194	403/320/244	523/384/260	540/392/275	705/568/427	740/590/433
	Water pressure drop (H/M/L)	kPa	15.13/8.22/6.64	33.19/22.37/14.64	17.56/10.28/5.43	23.31/12.57/6.11	35.52/24.83/14.91	37.20/24.50/13.75
Power input (H/M/L)		W	35/17/14	40/24/15	47/26/14	47/26/14	51/32/19	51/32/19
Sound power level (H/M/L)		dB(A)	47/35/34	53/47/39	46/37/31	47/38/32	52/44/36	52/45/37
Fan motor	Type	AC fan motor						
	Quantity		1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		1	1	2	2	2	2
Coil	Row		3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94
Body	Net dimensions (WxHxD)	mm	790x495x200	790x495x200	1020x495x200	1020x495x200	1240x495x200	1240x495x200
	Packing size (WxHxD)	mm	895x595x300	895x595x300	1125x595x300	1125x595x300	1345x595x300	1345x595x300
	Net weight	kg	16.3	16.7	20.0	20.8	24.0	25.4
	Gross weight	kg	21.8	22.7	26.8	26.8	31.0	32.4
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Model			MKH2-500-R3	MKH2-500-R4	MKH2-700-R3	MKH2-700-R4	MKH2-800-R3	MKH2-800-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)	m³/h		790/560/392	800/574/404	1190/855/555	1150/885/591	1300/1088/782	1300/1132/836
	CFM		465/330/231	471/338/238	700/503/327	677/521/348	766/641/461	766/667/492
External static pressure		Pa	0					
Cooling	Total Capacity (H/M/L)	kW	4.65/3.80/2.92	5.35/4.25/3.31	6.00/5.03/3.71	6.75/5.80/4.24	7.35/6.51/5.15	8.25/7.52/5.87
	Water flow rate (H/M/L)	L/h	797/652/500	917/729/567	1029/862/636	1157/995/727	1260/1116/884	1414/1289/1007
	Water pressure drop (H/M/L)	kPa	56.85/40.02/25.31	61.48/41.44/26.62	53.79/36.96/21.16	40.26/29.20/16.15	45.43/37.06/23.29	64.72/55.03/34.88
Heating	Capacity (H/M/L)	kW	5.20/3.95/3.00	5.70/4.36/3.31	6.15/5.10/3.80	7.15/5.81/4.30	8.20/7.09/5.46	8.50/7.60/5.90
	Water flow rate (H/M/L)	L/h	894/679/516	977/747/569	1054/877/654	1226/996/740	1406/1216/937	1457/1302/1015
	Water pressure drop (H/M/L)	kPa	56.68/37.31/23.25	60.89/37.73/21.79	57.85/38.53/21.1	42.16/28.68/14.66	44.60/34.09/19.98	61.96/47.46/28.84
Power input (H/M/L)		W	91/54/34	91/54/35	123/98/68	110/89/64	123/109/83	118/104/82
Sound power level (H/M/L)		dB(A)	59/51/43	59/51/43	64/56/45	62/56/46	63/58/50	63/58/50
Fan motor	Type	AC fan motor						
	Quantity		1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		2	2	3	3	3	3
Coil	Row		3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94
Body	Net dimensions (WxHxD)	mm	1240x495x200	1240x495x200	1360x495x200	1360x495x200	1360x591x200	1360x591x200
	Packing size (WxHxD)	mm	1345x595x300	1345x595x300	1465x595x300	1465x595x300	1465x695x300	1465x695x300
	Net weight	kg	25.5	26.3	27.3	28.5	31.7	34.0
	Gross weight	kg	32.0	33.4	34.8	36.0	40.2	42.0
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 45°C, leaving water 40°C, Entering air temperature 20°C DB/15°C WB.
3. Noise is tested in a reverberation chamber.

Model			MKH3-150-R3	MKH3-150-R4	MKH3-250-R3	MKH3-250-R4	MKH3-350-R3	MKH3-350-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)	m³/h		255/165/142	255/192/139	400/273/180	425/284/184	595/447/319	595/450/319
	CFM		150/97/84	150/113/82	235/161/106	250/167/109	350/263/188	350/265/188
External static pressure		Pa	12					
Cooling	Total Capacity (H/M/L)	kW	1.65/1.22/1.09	2.25/1.85/1.40	2.65/2.02/1.40	3.05/2.26/1.58	3.85/3.19/2.46	4.20/3.38/2.48
	Water flow rate (H/M/L)	L/h	283/209/186	386/317/241	454/346/240	523/387/272	660/546/422	720/580/425
	Water pressure drop (H/M/L)	kPa	15.75/9.33/7.37	33.19/22.37/14.64	18.03/11.18/5.48	26.71/15.66/8.42	38.23/27.11/16.96	41.15/27.07/15.71
Heating	Capacity (H/M/L)	kW	1.85/1.29/1.13	2.35/1.87/1.42	3.05/2.24/1.52	3.15/2.28/1.60	4.10/3.30/2.48	4.30/3.43/2.52
	Water flow rate (H/M/L)	L/h	317/222/194	403/320/244	523/384/260	540/392/275	705/568/427	740/590/433
	Water pressure drop (H/M/L)	kPa	15.13/8.22/6.64	33.19/22.37/14.64	17.56/10.28/5.43	23.31/12.57/6.11	35.52/24.83/14.91	37.20/24.50/13.75
Power input (H/M/L)		W	35/17/14	40/24/15	47/26/14	47/26/14	51/32/19	51/32/19
Sound power level (H/M/L)		dB(A)	47/35/34	53/47/39	46/37/31	47/38/32	52/44/36	52/45/37
Fan motor	Type	AC fan motor						
	Quantity		1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		1	1	2	2	2	2
Coil	Row		3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94
Body	Net dimensions (WxHxD)	mm	607x455x200	607x455x200	837x455x200	837x455x200	1057x455x200	1057x455x200
	Packing size (WxHxD)	mm	755x555x255	755x555x255	985x555x255	985x555x255	1205x555x255	1205x555x255
	Net weight	kg	11.6	12.0	13.9	14.8	17.3	18.2
	Gross weight	kg	15.9	16.3	19.4	20.3	24.0	24.9
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Model			MKH3-500-R3	MKH3-500-R4	MKH3-700-R3	MKH3-700-R4	MKH3-800-R3	MKH3-800-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)	m³/h		790/560/392	800/574/404	1190/855/555	1150/885/591	1300/1088/782	1300/1132/836
	CFM		465/330/231	471/338/238	700/503/327	677/521/348	766/641/461	766/667/492
External static pressure		Pa	12					
Cooling	Total Capacity (H/M/L)	kW	4.65/3.80/2.92	5.35/4.25/3.31	6.00/5.03/3.71	6.75/5.80/4.24	7.35/6.51/5.15	8.25/7.52/5.87
	Water flow rate (H/M/L)	L/h	797/652/500	917/729/567	1029/862/636	1157/995/727	1260/1116/884	1414/1289/1007
	Water pressure drop (H/M/L)	kPa	56.85/40.02/25.31	61.48/41.44/26.62	53.79/36.96/21.16	40.26/29.20/16.15	45.43/37.06/23.29	64.72/55.03/34.88
Heating	Capacity (H/M/L)	kW	5.20/3.95/3.00	5.70/4.36/3.31	6.15/5.10/3.80	7.15/5.81/4.30	8.20/7.09/5.46	8.50/7.60/5.90
	Water flow rate (H/M/L)	L/h	894/679/516	977/747/569	1054/877/654	1226/996/740	1406/1216/937	1457/1302/1015
	Water pressure drop (H/M/L)	kPa	56.68/37.31/23.25	60.89/37.73/21.79	57.85/38.53/21.1	42.16/28.68/14.66	44.60/34.09/19.98	61.96/47.46/28.84
Power input (H/M/L)		W	91/54/34	91/54/35	123/98/68	110/89/64	123/109/83	118/104/82
Sound power level (H/M/L)		dB(A)	59/51/43	59/51/43	64/56/45	62/56/46	63/58/50	63/58/50
Fan motor	Type	AC fan motor						
	Quantity		1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		2	2	3	3	3	3
Coil	Row		3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94
Body	Net dimensions (WxHxD)	mm	1057x455x200	1057x455x200	1177x455x200	1177x455x200	1177x500x200	1177x500x200
	Packing size (WxHxD)	mm	1205x555x255	1205x555x255	1325x555x255	1325x555x255	1325x650x255	1325x650x255
	Net weight	kg	17.9	18.8	20.5	21.7	24.0	25.2
	Gross weight	kg	24.6	25.5	27.3	28.5	31.1	32.3
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 45°C, leaving water 40°C, Entering air temperature 20°C DB/15°C WB.
3. Noise is tested in a reverberation chamber.
4. H3 series test with concealed tooling.

4-Pipe 2nd Generation Ceiling&Floor

Model			MKH1-150F-R4	MKH1-250F-R4	MKH1-350F-R4	MKH1-500F-R4	MKH1-700F-R4	MKH1-800F-R4	
Power supply		V/Ph/Hz	220-240/1/50						
Air flow (H/M/L)		m³/h	245/180/130	380/250/160	580/430/310	780/560/390	1050/800/520	1050/910/670	
		CFM	144/106/76	224/147/94	341/253/182	459/329/229	618/471/306	618/535/394	
External static pressure		Pa	0						
Cooling	Total Capacity (H/M/L)	kW	1.87/1.54/1.10	2.58/1.83/1.12	3.99/3.27/2.29	4.92/3.95/3.12	5.84/5.10/3.65	6.18/5.65/4.44	
	Water flow rate (H/M/L)	m³/h	0.321/0.26/0.19	0.44/0.31/0.19	0.68/0.56/0.39	0.84/0.68/0.54	1.00/0.87/0.63	1.06/0.97/0.76	
	Water pressure drop (H/M/L)	kPa	26.4/18.0/11.5	19.1/10.7/4.5	46.5/32.2/17.8	69.3/46.6/31.2	57.6/44.3/24.9	40.8/35.3/22.8	
Heating	Capacity (H/M/L)	kW	1.62/1.35/1.10	2.19/1.52/1.06	2.88/2.44/1.95	3.55/2.97/2.44	4.25/3.74/2.91	5.90/5.8/5.05	
	Water flow rate (H/M/L)	m³/h	0.14/0.12/0.10	0.19/0.13/0.09	0.25/0.21/0.17	0.31/0.26/0.21	0.37/0.32/0.25	0.51/0.50/0.44	
	Water pressure drop (H/M/L)	kPa	15.0/10.6/7.7	28.6/15.1/8.5	56.7/42.3/28.5	80.0/59.8/41.8	123.45/102.03/64.74	54.8/53.1/43.3	
Power input (H/M/L)		W	40/24/15	47/26/15	51/32/19	92/54/35	117/93/66	110/81/70	
Sound power level (H/M/L)		dB(A)	52/47/39	48/39/33	52/45/37	61/52/43	65/57/47	65/61/52	
Fan motor	Type		AC fan motor						
	Quantity		1	1	1	1	1	1	
Fan	Type		Centrifugal, forward-curved Blades						
	Quantity		1	2	2	2	3	3	
Coil	Row		4	4	4	4	4	4	
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6	
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	
Body	Net dimensions (WxHxD)		mm	790x495x211	1020x495x211	1020x495x211	1360x495x211	1360x591x211	
	Packing size (WxHxD)		mm	895x595x300	1125x595x300	1125x595x300	1465x595x300	1465x695x300	
	Net weight		kg	17.2	21.3	25.9	26.8	29.0	34.5
	Gross weight		kg	23.2	27.3	32.9	33.9	36.5	42.5
Water inlet/outlet pipe		inch	Cold water: G3/4; Hot water: G1/2						
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	

Model			MKH2-150F-R4	MKH2-250F-R4	MKH2-350F-R4	MKH2-500F-R4	MKH2-700F-R4	MKH2-800F-R4	
Power supply		V/Ph/Hz	220-240/1/50						
Air flow (H/M/L)		m³/h	255/192/139	425/284/184	595/450/319	800/574/404	1150/885/591	1300/1132/836	
		CFM	150/113/82	250/167/109	350/265/188	471/338/238	677/521/348	766/667/492	
External static pressure		Pa	0						
Cooling	Sensible Capacity(H/M/L)	kW	1.50/1.20/0.78	2.05/1.39/0.84	2.94/2.38/1.60	3.80/2.95/2.25	4.90/4.25/2.95	5.85/5.28/4.05	
	Total Capacity (H/M/L)	kW	1.95/1.60/1.15	2.89/2.05/1.25	4.09/3.35/2.35	5.05/4.05/3.20	6.40/5.59/4.00	7.65/7.00/5.50	
	Water flow rate (H/M/L)	m³/h	0.33/0.28/0.20	0.50/0.35/0.21	0.70/0.57/0.40	0.87/0.69/0.55	1.10/0.96/0.69	1.31/1.20/0.94	
	Water pressure drop (H/M/L)	kPa	27.47/19.63/12.54	21.38/11.95/4.99	47.7/33.04/18.22	71.09/47.81/31.95	63.05/48.47/27.23	50.47/43.72/28.23	
Heating	Capacity (H/M/L)	kW	1.69/1.40/1.15	2.45/1.70/1.19	2.95/2.50/2.00	3.64/3.05/2.50	4.65/4.09/3.19	7.30/7.19/6.25	
	Water flow rate (H/M/L)	m³/h	0.14/0.12/0.10	0.21/0.15/0.10	0.25/0.21/0.17	0.31/0.26/0.21	0.40/0.35/0.27	0.63/0.62/0.54	
	Water pressure drop (H/M/L)	kPa	15.60/11.01/8.04	31.95/16.83/9.52	58.17/43.35/29.20	82.01/61.29/42.87	135.21/111.75/70.91	67.86/65.78/53.61	
Power input (H/M/L)		W	40/24/15	47/26/14	51/32/19	91/54/35	110/89/64	118/104/82	
Rated current		A	0.17/0.10/0.07	0.20/0.11/0.06	0.22/0.14/0.08	0.40/0.24/0.15	0.48/0.39/0.28	0.51/0.45/0.36	
Sound power level	(H/M/L)	dB(A)	53/47/39	47/38/32	52/45/37	59/51/43	62/56/46	63/58/50	
Fan motor	Type		AC fan motor						
	Quantity		1	1	1	1	1	1	
Fan	Type		Centrifugal, forward-curved Blades						
	Quantity		1	2	2	2	3	3	
Coil	Row		4	4	4	4	4	4	
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6	
	Diameter	mm	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94	Ø7.94	
Body	Net dimensions (WxHxD)		mm	790x495x200	1020x495x200	1020x495x200	1360x495x200	1360x591x200	
	Packing size (WxHxD)		mm	895x595x300	1125x595x300	1125x595x300	1465x595x300	1465x695x300	
	Net weight		kg	17.2	21.3	25.9	26.8	29.0	34.5
	Gross weight		kg	23.2	27.3	32.9	33.9	36.5	42.5
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4	
Drain pipe		mm	ODØ18.5	ODØ18.5	ODØ18.5	ODØ18.5	ODØ18.5	ODØ18.5	

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7℃, leaving water 12℃, Entering air temperature 27℃ DB/19℃ WB.
Heating conditions: Entering water 65℃, leaving water 55℃, Entering air temperature 20℃ DB/15℃ WB.
3. Noise is tested in a reverberation chamber.

Model			MKH3-150F-R4	MKH3-250F-R4	MKH3-350F-R4	MKH3-500F-R4	MKH3-700F-R4	MKH3-800F-R4	
Power supply		V/Ph/Hz	220-240/1/50						
Air flow (H/M/L)		m³/h	255/192/139	425/284/184	595/450/319	800/574/404	1150/885/591	1300/1132/836	
		CFM	150/113/82	250/167/109	350/265/188	471/338/238	677/521/348	766/667/492	
External static pressure		Pa	12						
Cooling	Sensible Capacity(H/M/L)	kW	1.50/1.20/0.78	2.05/1.39/0.84	2.94/2.38/1.60	3.80/2.95/2.25	4.90/4.25/2.95	5.85/5.28/4.05	
	Total Capacity (H/M/L)	kW	1.95/1.60/1.15	2.89/2.05/1.25	4.09/3.35/2.35	5.05/4.05/3.20	6.40/5.59/4.00	7.65/7.00/5.50	
	Water flow rate (H/M/L)	m³/h	0.33/0.28/0.20	0.50/0.35/0.21	0.70/0.57/0.40	0.87/0.69/0.55	1.10/0.96/0.69	1.31/1.20/0.94	
	Water pressure drop (H/M/L)	kPa	27.47/19.63/12.54	21.38/11.95/4.99	47.7/33.04/18.22	71.09/47.81/31.95	63.05/48.47/27.23	50.47/43.72/28.23	
Heating	Capacity (H/M/L)	kW	1.69/1.40/1.15	2.45/1.70/1.19	2.95/2.50/2.00	3.64/3.05/2.50	4.65/4.09/3.19	7.30/7.19/6.25	
	Water flow rate (H/M/L)	m³/h	0.14/0.12/0.10	0.21/0.15/0.10	0.25/0.21/0.17	0.31/0.26/0.21	0.40/0.35/0.27	0.63/0.62/0.54	
	Water pressure drop (H/M/L)	kPa	15.60/11.01/8.04	31.95/16.83/9.52	58.17/43.35/29.20	82.01/61.29/42.87	135.21/111.75/70.91	67.86/65.78/53.61	
Power input (H/M/L)		W	40/24/15	47/26/14	51/32/19	91/54/35	110/89/64	118/104/82	
Rated current		A	0.17/0.10/0.07	0.20/0.11/0.06	0.22/0.14/0.08	0.40/0.24/0.15	0.48/0.39/0.28	0.51/0.45/0.36	
Sound power level	(H/M/L)	dB(A)	53/47/39	47/38/32	52/45/37	59/51/43	62/56/46	63/58/50	
Fan motor	Type		AC fan motor						
	Quantity		1	1	1	1	1	1	
Fan	Type		Centrifugal, forward-curved Blades						
	Quantity		1	2	2	2	3	3	
Coil	Row		4	4	4	4	4	4	
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6	
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	
Body	Net dimensions (W×H×D)		mm	607×455×200	837×455×200	1057×455×200	1057×455×200	1177×455×200	1177×550×200
	Packing size (W×H×D)		mm	895×595×300	1125×595×300	1345×595×300	1345×595×300	1465×595×300	1465×695×300
	Net weight		kg	12.5	15.3	18.7	19.3	22.2	25.7
	Gross weight		kg	16.8	20.8	25.4	26.0	29.0	32.8
Water inlet/outlet pipe		inch	Cold water: G3/4; Hot water: G1/2						
Drain pipe		mm	ODΦ18.5						

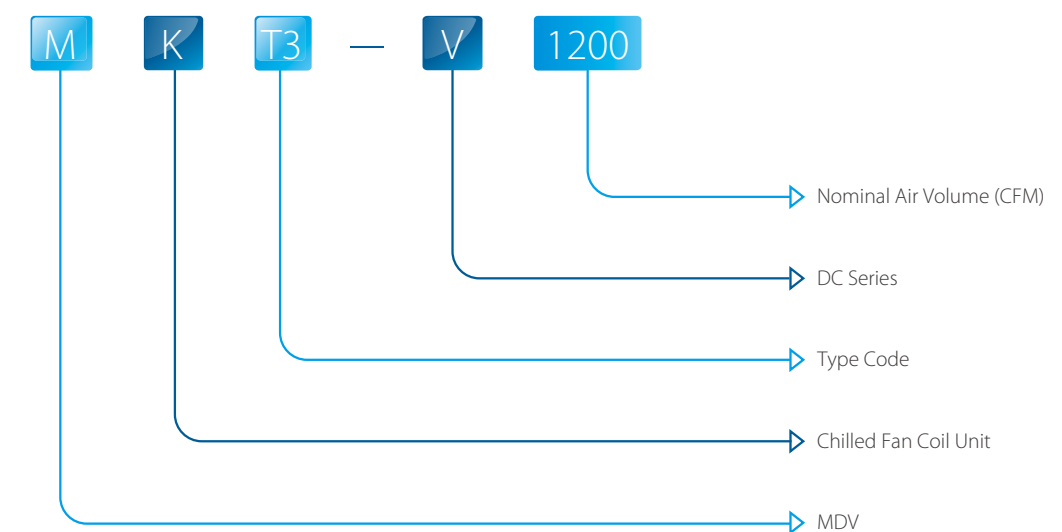
Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7℃, leaving water 12℃, Entering air temperature 27℃ DB/19℃ WB.
Heating conditions: Entering water 65℃, leaving water 55℃, Entering air temperature 20℃ DB/15℃ WB.
3. Noise is tested in a reverberation chamber.
4. H3 series test with concealed tooling.



DC Fan Coil Units

























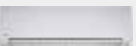












MDV DC Fan Coil Units operate in high efficiency and low sound level due to the DC brushless fan motor. It contains cassette units, ceiling & floor units with or without cabinet, wall-mounted units and duct units. The air volume ranges from 150CFM to 1500CFM. It is a highly versatile product suitable for hospitals, office buildings, hotels, airports and various other applications.

Nomenclature





















Product Lineup

2-Pipe FCUs

Model		150	200	250	300	350	400	450	500		600	700	750	800	850	900	950	1000	1200	1500
1-way cassette																				
4-way cassette																				
Compact 4-way cassette																				
Duct																				
Wall mounted																				
2 nd generation Ceiling&floor																				

4-Pipe FCUs

Model		150	200	250	300	350	400	500		600	700	750	800	850	950	1000	1200	1500
4-way cassette																		
Compact 4-way cassette																		
2 nd generation Ceiling&floor																		

Notes:
 The standard power supply for all fan coil units is 220V-240V/50Hz; 208-230V/60Hz can be customized for some series fan coil units. For further information, please contact with our salesmen.

DC Series Functions

Functions				One-way Cassette	Compact Four-way Cassette	Four-way Cassette	Wall Mounted	2 nd Generation Ceiling & Floor	Duct
Control Customization	Follow me	With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in the wireless remote controller.		○(KJR-29B)	○(KJR-29B)	○(KJR-29B)	○(KJR-29B)	○(KJR-29B)	×
	Anti cold air	Prevent the unit from cold supply air when starting in winter.		●	●	●	●	●	×
	Auto-restart	The unit restarts automatically with the previous settings after power failure.		●	●	●	●	●	×
	Forced fan running	After reaching the set temperature, the valve body closes and the fan operates according to the setting.		√	○	√	√	√	×
	Heat	Only electric auxiliary heating.		×	×	×	×	×	×
	Temperature compensation	Heating mode:T2=T1+ΔT; Cooling mode:T2=T1-ΔT T2: Indoor Temperature, T1: Setting Temperature, ΔT: Temperature Compensation		√	○	√	√	√	×
	XYE Port	Communicate with central controllers or BMS.		○(XYE)	○(XYE)	○(XYE)	●	○(XYE)	○(FCU-kit)
	PQE Port	Communicate with Modbus.		○	○	○	○	○	×
	CCM18/CCM08/ CCM15/BMS/IMM	Central controllers and BMS.		○(XYE)	○(XYE)	○(XYE)	●	○(XYE)	○(FCU-kit)
	0-10V output control	By outputting a 0-10 V level, the opening of the valve body is controlled to meet different energy requirements.		×	×	×	○	×	×
0-10V input control	By inputting a 0- 10 V level to PCB, the fan motor speed is controlled to meet different energy requirements.		○	×	○	○	○	×	
Structrue Customization	Right/Left piping connection	Left and right hand piping connections are optional, flexible installation.		×	×	×	×	●	●
	Electric auxiliary heating	Increase heating capacity with additional electric heater.		×	×	×	×	×	×
	Extended drainage pan	Drainage pan accessory.		×	×	×	×	×	○
	Auxiliary drainage pan			×	○	○	×	○	○

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

One-way Cassette



Model: 300/400/600 CFM



RM05
Standard



KJR-75A
Optional

Features

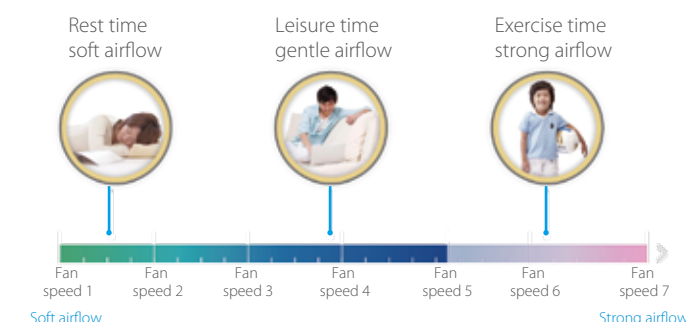
- Auto mode and 7 fan speed (by 75A wired controller).
- Hysteresis temperature can be set in heating and cooling mode by PCB switch, field adjustable.
- With/without forced fan on can be set by PCB switch, field adjustable.
- The central controller can be connected through the customization XYE port.
- Remote on/off function can be applied to turn on/off the unit.
- The Gateway(Modbus) can be connected through the customization PQE port.
- Wired controller KJR-75A is optional.
- Compatible with 0-10V control function.

One way cassette has a compact size, it's suitable for application in narrow space such as the aisle, small office, elevator space etc.



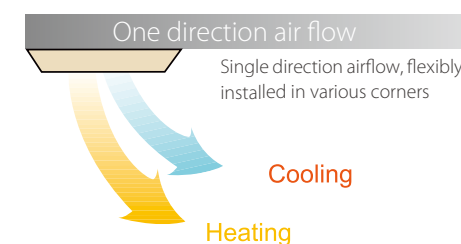
Multiple Fan Speeds

The DC Series comes with 3 fan speed option to meet the needs of different indoor conditions. (7 fan speed should be used KJR-75A wired controller)



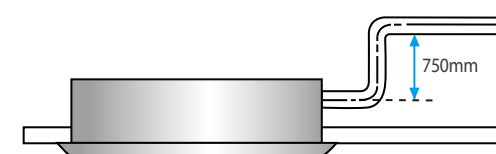
One Direction Air Flow

One direction air flow guarantees quick cooling, flexible installation positioning.



High-lift Pump

Standard built-in drain pump with 750mm pump head.



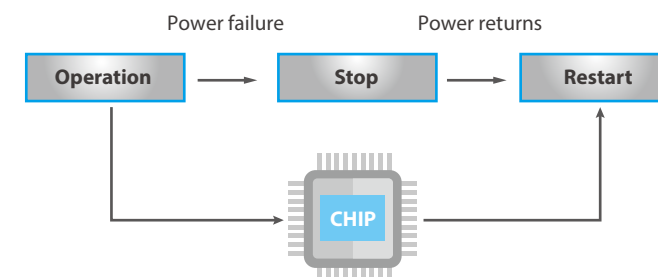
Minimum 153 mm thickness

Compact design, ultra slim body with a minimum thickness of 153mm, especially suitable for narrow ceiling, such as in lobbies and small meeting rooms.



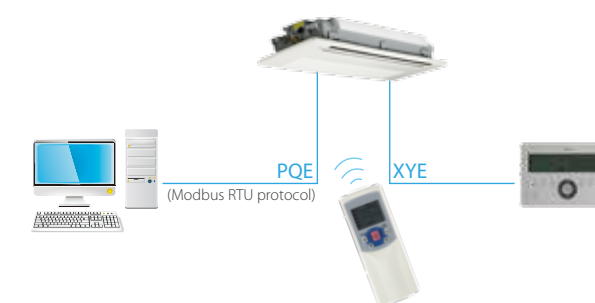
Auto restart

In the event of a sudden power failure during operation, unit restarts automatically and the unit will operate based on the previous setting (operating mode, temperature setting and fan speed).



Control solutions

The fan coil units can be connected to MDV central controllers through the customized XYE port, also can be connected to Modbus gateway through the customized PQE port with Modbus RTU protocol.

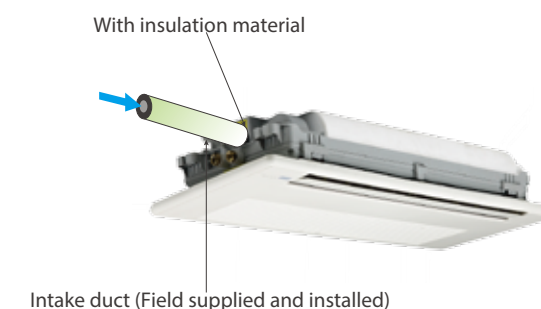


Fresh Air Intake

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

Knock out hole is available in the unit.

Accessories such as booster fan must be supplied on field and installed.

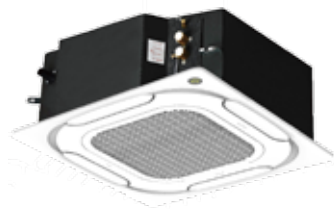


Specifications

Model			MKC-V300R-B	MKC-V400R-B	MKC-V600R-B
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	510/432/330	630/509/428	1000/786/583
		CFM	300/254/194	371/299/252	588/462/343
Cooling	Capacity (H/M/L)	kW	2.64/2.23/1.68	3.94/3.43/3.07	5.09/4.36/3.58
	Water flow rate(H/M/L)	m³/h	0.49/0.42/0.33	0.6/0.52/0.45	0.87/0.7/0.55
	Water pressure drop(H/M/L)	kPa	8.63/6.26/3.69	23.85/18.07/14.8	38.22/28.95/19.41
	Power input(H/M/L)	W	22/18/14	23/19/17	38/27/19
Heating	Capacity (H/M/L)	kW	3.85/3.27/2.53	4.86/3.94/3.24	6.49/5.3/4.01
	Water flow rate(H/M/L)	m³/h	0.5/0.42/0.32	0.59/0.49/0.42	0.86/0.67/0.48
	Water pressure drop(H/M/L)	kPa	7.72/5.75/3.28	20.12/15.50/12.42	32.36/24.57/16.37
	Power input(H/M/L)	W	16/11/8	16/12/10	31/20/12
Sound pressure level (H/M/L)		dB(A)	44.3/40.6/33.5	36.6/32.6/30.4	44.6/38.6/33.1
Fan motor	Type		DC motor	DC motor	DC motor
	Quantity		1	1	1
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1	1	1
Coil	Row		2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7
Panel	Net dimensions (W×H×D)	mm	1180x25x465	1350x25x505	1350x25x505
	Packing size (W×H×D)	mm	1232x107x517	1410x95x560	1410x95x560
	Net weight	kg	3.5	4	4
	Gross weight	kg	5.2	5.4	5.4
Body	Net dimensions (W×H×D)	mm	1054x153x428	1275x189x450	1275x189x450
	Packing size (W×H×D)	mm	1155x245x490	1400x295x505	1400x295x505
	Net weight	kg	12.5	17.5	17.5
	Gross weight	kg	16.5	23.5	23.5
Pipe connections	Water inlet/outlet pipe	inch	G1/2	G1/2	G1/2
	Drain pipe	mm	ODΦ25	ODΦ25	ODΦ25

Notes:
 1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
 2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
 Heating conditions: Entering water 45°C, leaving water 40°C, Entering air temperature 20°C DB.
 3. Noise is tested in a semi-anechoic test room.

Four-way Cassette



Model: 600/750/850/950/1200/1500 CFM



R05
Standard



KJR-29B
Optional

Features

- 4-way air supply panel as standard , new 360°air supply panel is optional.
- Fresh air intake , also supply to side room.
- Built-in PCB and drain pump with pump head-750mm.
- Remote controller with LED display is standard, wired controller is optional.
- Safety grill for safety maintenance.
- Optional extended drainage pan for protecting your ceiling better.
- Compatible with 0-10V control function.
- Available for 2/4 pipe system

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



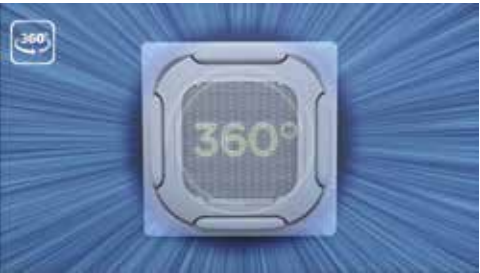
Stylish Panel with Large Airflow Outlet

4-way air supply panel is standard for 4-way cassette.
360° air supply panel is standard for compact 4-way cassette.



NEW 360° panel

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



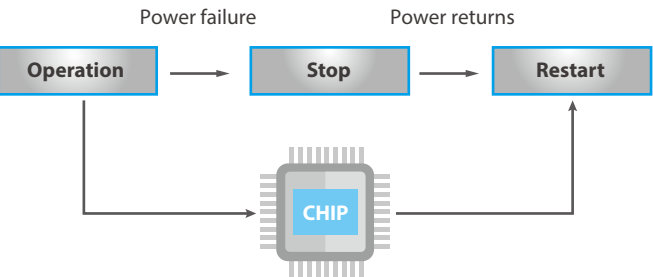
Individual louver control

The Individual louver control can control the motors separately, making it possible to control all four louvers independently.



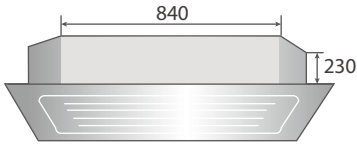
Auto restart

In the event of a sudden power failure during operation, unit restarts automatically and the unit will operate based on the previous setting (operating mode, temperature setting and fan speed).



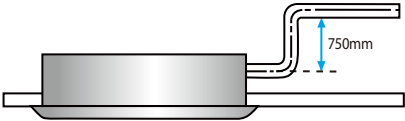
Various Selections

Versions for normal size.
The height of models 600 to 750 is just 230mm whilst models 850 to 1500 is 300mm, making the Four-way Cassette ideal for standard ceilings.



High-lift Drain Pump

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

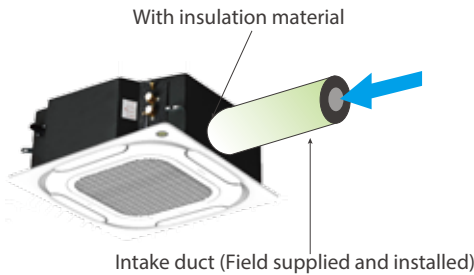


Fresh Air Intake

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

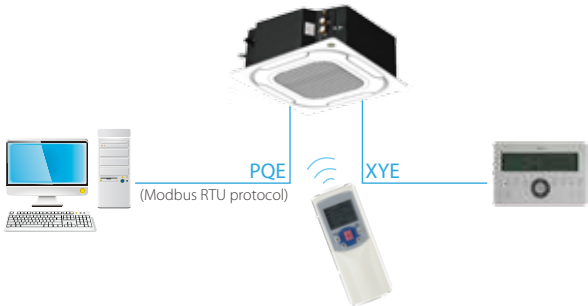
Knock out hole is available in the unit.

Accessories such as booster fan must be supplied on field and installed.



Control solutions

The fan coil units can be connected to MDV central controllers through the customized XYE port, also can be connected to Modbus gateway through the customized PQE port with Modbus RTU protocol.



2-Pipe 4-Way Cassette

Model			MKA-V600R	MKA-V750R	MKA-V850R
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	1175/987/768	1229/1020/810	1451/1146/1012
		CFM	691/580/451	853/674/595	
Cooling¹	Capacity (H/M/L)	kW	5.93/5.3/4.4	6.12/5.45/4.6	7.52/6.46/5.89
	Water flow rate(H/M/L)	m³/h	1.06/0.92/0.77	1.10/0.96/0.81	1.37/1.18/1.07
	Water pressure drop(H/M/L)	kPa	19.2/15.4/11	21.3/21.3/12.4	20.1/15.3/12.6
	Power input(H/M/L)	W	41/27/17	49/31/20	68/37/30
Heating²	Capacity (H/M/L)	kW	6.06/5.72/5.32	6.27/5.88/5.43	7.88/7.48/6.76
	Water flow rate(H/M/L)	m³/h	1.30/1.14/1.13	1.39/1.20/1.00	1.66/1.39/1.25
	Water pressure drop(H/M/L)	kPa	25.9/20.1/19.9	30/22.7/16.3	26.7/18.8/15.6
	Power input(H/M/L)	W	42/28/17	44/32/21	66/37/28
Heating³	Capacity (H/M/L)	kW	8.42/7.37/6.06	8.62/7.49/6.27	10.37/8.72/7.88
	Water flow rate(H/M/L)	m³/h	1.06/0.92/0.77	1.10/0.96/0.81	1.37/1.18/1.07
	Water pressure drop(H/M/L)	kPa	16.9/12.7/8.6	19.1/14.8/10.6	18.2/13.6/11.1
	Power input(H/M/L)	W	42/28/17	49/31/19	67/37/28
Sound pressure level (H/M/L)		dB(A)	43/39/33	44/40/34	45/40/37
Fan motor	Type		DC Motor		
	Quantity		1		
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1		
Coil	Row		2	2	2
	Max. Working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Ø7	Ø7	Ø7
Panel	Net dimensions (WxHxD)	mm	950x45x950	950x45x950	950x45x950
	Packing size (WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
Body	Net dimensions (WxHxD)	mm	840x230x840	840x230x840	840x300x840
	Packing size (WxHxD)	mm	900x237x900	900x237x900	900x330x900
	Net weight	kg	23	23	27
	Gross weight	kg	28	28	33
Pipe connections	Water inlet/outlet pipe	inch	RC3/4	RC3/4	RC3/4
	Drain pipe	mm	ODØ82	ODØ82	ODØ82

Model			MKA-V950R	MKA-V1200R	MKA-V1500R
Power supply		V/Ph/Hz	220-240/1/50		
Air flow (H/M/L)		m³/h	1530/1224/1101	1581/1371/1236	1871/1415/1198
		CFM	900/720/647	930/806/727	1100/832/704
Cooling¹	Capacity (H/M/L)	kW	7.84/6.84/6.35	7.87/7.12/6.67	11.19/8.82/7.48
	Water flow rate(H/M/L)	m³/h	1.43/1.24/1.13	1.44/1.28/1.22	1.96/1.53/1.28
	Water pressure drop(H/M/L)	kPa	22/17/14.1	22.3/18.1/16.3	36.6/22.7/16.4
	Power input(H/M/L)	W	75/42/34	85/59/45	126/58/39
Heating²	Capacity (H/M/L)	kW	8.49/8/7.35	9.16/8.54/7.9	10.07/9.37/8.68
	Water flow rate(H/M/L)	m³/h	1.71/1.45/1.33	1.73/1.57/1.46	2.35/1.86/1.59
	Water pressure drop(H/M/L)	kPa	28.1/20.7/17.4	28.8/24/20.7	49.2/31.2/23.3
	Power input(H/M/L)	W	76/43/33	86/59/45	128/58/38
Heating³	Capacity (H/M/L)	kW	10.86/9.24/8.49	10.92/9.84/9.16	14.92/11.73/10.07
	Water flow rate(H/M/L)	m³/h	1.43/1.24/1.13	1.44/1.28/1.22	1.96/1.53/1.28
	Water pressure drop(H/M/L)	kPa	19.9/15.2/12.6	20/16.2/14.7	34.3/21.3/15
	Power input(H/M/L)	W	76/42/33	85/58/45	127/58/39
Sound pressure level (H/M/L)		dB(A)	46/42/39	48/44/41	49/43/39
Fan motor	Type		DC Motor		
	Quantity		1		
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1		
Coil	Row		2	2	3
	Max. Working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Ø7	Ø7	Ø7
Panel	Net dimensions (WxHxD)	mm	950x45x950	950x45x950	950x45x950
	Packing size (WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
Body	Net dimensions (WxHxD)	mm	840x300x840	840x300x840	840x300x840
	Packing size (WxHxD)	mm	900x330x900	900x330x900	900x330x900
	Net weight	kg	27	27	29.5
	Gross weight	kg	33	33	34.5
Pipe connections	Water inlet/outlet pipe	inch	RC3/4	RC3/4	RC3/4
	Drain pipe	mm	ODØ82	ODØ82	ODØ82

Notes:

H:High fan speed; M: Medium fan speed; L: Low fan speed.

1:Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C /12°C.

2:Heating mode(1): (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C.

3:Heating mode(2): (2-pipe coil): entering air temperature 20°C DB, enter water teperaure/water flow 50°C/*(same water flow as in standard rating condition in cooling)

4:Noise is tested in a semi-anechoic test room.

4-Pipe 4-Way Cassette

Model			MKA-V600FA	MKA-V750FA	MKA-V850FA
Power supply		V/Ph/Hz		220-240/1/50	
Air flow (H/M/L)		m³/h	1184/997/783	1278/1057/855	1328/1052/927
		CFM	696/586/460	751/621/502	780/618/545
Cooling¹	Capacity (H/M/L)	kW	4.96/4.383/3.642	5.178/4.563/3.875	5.129/4.413/4.06
	Water flow rate(H/M/L)	m³/h	0.9/0.8/0.67	0.94/0.83/0.71	0.93/0.81/0.75
	Water pressure drop(H/M/L)	kPa	14.8/11.5/8.1	15.9/12.4/9	16/14.2/10.4
	Power input(H/M/L)	W	62/44/30	72/50/35	80/49/40
Heating²	Capacity (H/M/L)	kW	6.148/5.43/4.614	6.519/5.785/4.944	6.684/5.748/5.283
	Water flow rate(H/M/L)	m³/h	0.58/0.52/0.45	0.61/0.55/0.47	0.62/0.54/0.50
	Water pressure drop(H/M/L)	kPa	25.3/20.5/14.5	32/25.7/19.1	32.6/24.7/21.2
	Power input(H/M/L)	W	56/36/21	67/42/25	75/41/31
Heating³	Capacity (H/M/L)	kW	6.94/6.217/5.266	7.374/6.533/5.6	7.657/6.584/6.033
	Water flow rate(H/M/L)	m³/h	0.64/0.58/0.50	0.68/0.61/0.53	0.71/0.61/0.57
	Water pressure drop(H/M/L)	kPa	37.2/26.1/19.3	39.5/32.5/23.8	41.6/31.5/26.8
	Power input(H/M/L)	W	55/36/21	68/43/25	76/42/31
Sound power level	(H/M/L)	dB(A)	54/49/43	56/51/45	57/51/48
Sound pressure level	(H/M/L)	dB(A)	42/37/31	44/39/33	45/39/36
Rated current		A	0.48	0.6	0.72
Fan motor	Type		7	DC motor	DC motor
	Quantity		1	1	1
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1	1	1
Coil	Row		2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Ø7	Ø7	Ø7
Panel	Net dimensions (WxHxD)	mm	950x45x950	950x45x950	950x45x950
	Packing size (WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
Body	Net dimensions (WxHxD)	mm	840x300x840	840x300x840	840x300x840
	Packing size (WxHxD)	mm	900x330x900	900x330x900	900x330x900
	Net weight	kg	27.5	27.5	27.5
	Gross weight	kg	33.5	33.5	33.5
Pipe connections	Water inlet/outlet pipe	inch	Cold water: RC3/4; Hot water: RC1/2		
	Drain pipe	mm	ODØ32	ODØ32	ODØ32

Model			MKA-V950FA	MKA-V1200FA	MKA-V1500FA
Power supply		V/Ph/Hz		220-240/1/50	
Air flow (H/M/L)		m³/h	1403/1115/1001	1642/1421/1285	1708/1297/1096
		CFM	824/655/588	965/835/755	1004/762/644
Cooling¹	Capacity (H/M/L)	kW	5.306/4.593/4.279	7.984/7.245/6.697	8.038/6.623/5.837
	Water flow rate(H/M/L)	m³/h	0.96/0.84/0.78	1.42/1.29/1.2	1.43/1.19/1.05
	Water pressure drop(H/M/L)	kPa	16.4/12.6/10.9	33.9/30/24	33/22.6/17.7
	Power input(H/M/L)	W	90/54/43	121/83/66	139/70/49
Heating²	Capacity (H/M/L)	kW	6.736/5.833/5.442	9.746/8.962/8.422	9.93/8.326/7.512
	Water flow rate(H/M/L)	m³/h	0.63/0.55/0.52	0.89/0.82/0.77	0.90/0.76/0.69
	Water pressure drop(H/M/L)	kPa	34/26.6/23.5	42.4/36.6/32.6	48.7/32.5/27
	Power input(H/M/L)	W	84/46/35	118/79/61	125/64/42
Heating³	Capacity (H/M/L)	kW	7.659/6.646/6.204	11.045/10.149/9.527	11.342/9.596/8.683
	Water flow rate(H/M/L)	m³/h	0.71/0.62/0.58	1.0/0.92/0.87	1.02/0.87/0.79
	Water pressure drop(H/M/L)	kPa	43.8/33.5/29.3	52.1/44.9/40.6	62.1/45.7/38.3
	Power input(H/M/L)	W	84/45/35	118/79/61	125/64/42
Sound power level	(H/M/L)	dB(A)	58/53/50	60/56/54	61/55/50
Sound pressure level	(H/M/L)	dB(A)	46/41/38	48/44/42	49/43/38
Rated current		A	0.72	1.08	1.32
Fan motor	Type		DC motor	DC motor	DC motor
	Quantity		1	1	1
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1	1	1
Coil	Row		2	3	3
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Ø7	Ø7	Ø7
Panel	Net dimensions (WxHxD)	mm	950x45x950	950x45x950	950x45x950
	Packing size (WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035
	Net weight	kg	6	6	6
	Gross weight	kg	9	9	9
Body	Net dimensions (WxHxD)	mm	840x300x840	840x300x840	840x300x840
	Packing size (WxHxD)	mm	900x330x900	900x330x900	900x330x900
	Net weight	kg	27.5	30	30
	Gross weight	kg	32.4	35	35
Pipe connections	Water inlet/outlet pipe	inch	Cold water: RC3/4; Hot water: RC1/2		
	Drain pipe	mm	ODØ32	ODØ32	ODØ32

Notes:
H: High fan speed; M: Medium fan speed; L: Low fan speed.
1: Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/1 9°C WB, entering/leaving water temperature 7°C /12°C.
2: Heating mode(1): (4-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 65/55°C.
3: Heating mode(2): (4-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 70/60°C.
4.Sound pressure level is tested in a semi-anechoic test room.
5.Sound power level is tested in a reverberation chamber.

Compact Four-way Cassette



Model: 300/400/500 CFM



R05
Standard



KJR-29B
Optional

Features

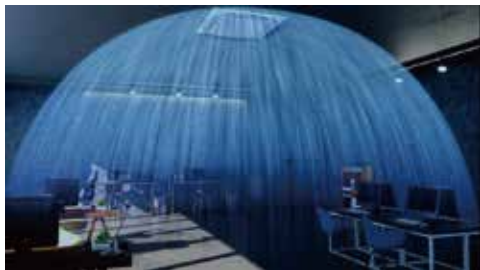
- 360°air supply panel is standard
- Fresh air intake , also supply to side room.
- Built-in PCB and drain pump with pump head-500mm.
- Remote controller with LED display is standard, wired controller is optional.
- Safety grill for safety maintenance.
- Optional extended drainage pan for protecting your ceiling better.
- Available for 2/4 pipe system

Compact design allows installation in shallow ceilings.



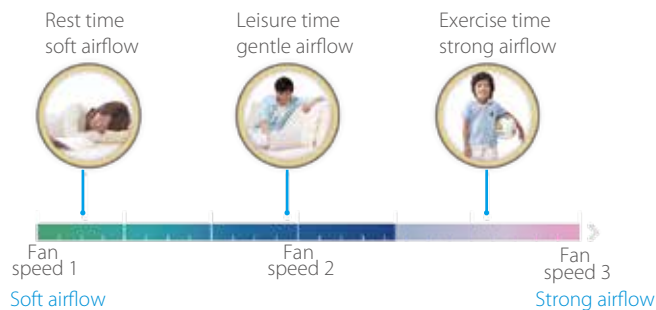
360 ° Airflow

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

The DC Series comes with 3 fan speed option to meet the needs of different indoor conditions.

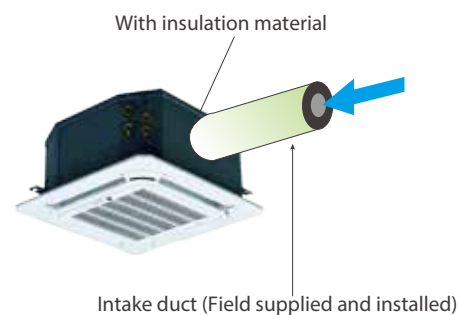


Fresh Air Intake

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

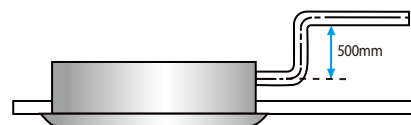
Knock out hole is available in the unit.

Accessories such as booster fan must be supplied on field and installed.



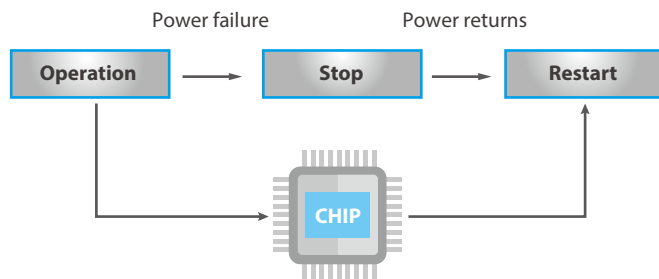
High-lift Drain Pump

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



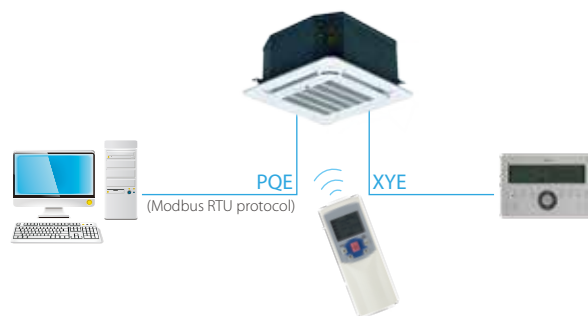
Auto restart

In the event of a sudden power failure during operation, unit restarts automatically and the unit will operate based on the previous setting (operating mode, temperature setting and fan speed).



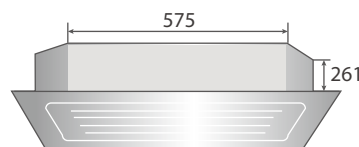
Control solutions

The fan coil units can be connected to MDV central controllers through the customized XYE port, also can be connected to Modbus gateway through the customized PQE port with Modbus RTU protocol.

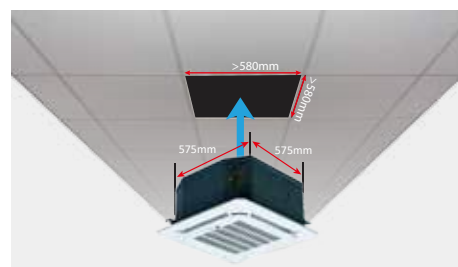


Compact design

The height of models 300 to 500 is just 261mm, making the Compact Four-way Cassette ideal for standard ceilings.



Compact Four-way Cassette body dimension is only 575 mm x 575 mm which can easily fits into less to 585 mm ceiling grid.



2-Pipe Compact 4-Way Cassette

Model			MKD-V300	MKD-V400	MKD-V500
Power supply		V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50
Air flow (H/M/L)		m³/h	535/429/322	610/477/381	781/611/494
		CFM	314/252/189	359/281/224	459/359/290
		kW	2.98/2.53/2	3.96/3.26/2.76	4.2/3.48/3.01
Cooling¹	Capacity (H/M/L)	kW	2.61/2.31/2.24	4.08/3.34/2.73	4.95/3.99/3.26
	Water flow rate(H/M/L)	m³/h	0.53/0.45/0.35	0.7/0.58/0.51	0.75/0.61/0.54
	Water pressure drop(H/M/L)	kPa	10/7/5	11.48/8.2/6.54	12.32/8.62/7.4
	Power input(H/M/L)	W	15/9/5	28/15/9	43/28/21
Heating²	Capacity (H/M/L)	kW	4.01/3.35/2.61	4.78/3.84/3.18	5.76/4.69/3.84
	Water flow rate(H/M/L)	m³/h	0.64/0.54/0.42	0.83/0.67/0.56	0.87/0.70/0.58
	Water pressure drop(H/M/L)	kPa	12.1/8.5/5.3	9.2/8.6/6	9.4/8.23/6.1
	Power input(H/M/L)	W	15/9/5	28/16/10	33/18/11
Heating³	Capacity (H/M/L)	kW	4.01/3.35/2.61	4.78/3.84/3.18	5.76/4.69/3.84
	Water flow rate(H/M/L)	m³/h	0.53/0.45/0.35	0.7/0.58/0.51	0.75/0.61/0.54
	Water pressure drop(H/M/L)	kPa	8.2/6/3.8	12.68/6.4/4.92	11.41/6.5/5.41
	Power input(H/M/L)	W	14/9/5	28/16/10	33/18/11
Sound pressure level	(H/M/L)	dB(A)	39/33/27	42/36/30	43/38/32
Fan motor	Type		DC Motor	DC Motor	DC Motor
	Quantity		1	1	1
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1	1	1
Coil	Row		2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Ø7	Ø7	Ø7
Panel	Net dimensions (WxHxD)	mm	647x50x647	647x50x647	647x50x647
	Packing size (WxHxD)	mm	715x123x715	715x123x715	715x123x715
	Net weight	kg	2.5	2.5	2.5
	Gross weight	kg	4.5	4.5	4.5
Body	Net dimensions (WxHxD)	mm	575x261x575	575x261x575	575x261x575
	Packing size (WxHxD)	mm	670x290x670	670x290x670	670x290x670
	Net weight	kg	16.5	16.5	16.5
	Gross weight	kg	22.5	22.5	22.5
Pipe connections	Water inlet/outlet pipe	inch	G3/4	G3/4	G3/4
	Drain pipe	mm	ODØ25	ODØ25	ODØ25

4-Pipe Compact 4-Way Cassette

Model			MKD-V300FA	MKD-V400FA	MKD-V500FA
Power supply		V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50
Air flow (H/M/L)		m³/h	493/395/295	669/523/415	673/526/425
		CFM	290/232/173	393/307/244	395/309/250
		kW	2.161/1.861/1.485	2.777/2.375/2.045	2.771/2.382/2.069
Cooling¹	Capacity (H/M/L)	kW	2.161/1.861/1.485	2.777/2.375/2.045	2.771/2.382/2.069
	Water flow rate(H/M/L)	m³/h	0.42/0.37/0.3	0.53/0.46/0.4	0.56/0.49/0.43
	Water pressure drop(H/M/L)	kPa	17.4/13.5/9.3	13.15/9.4/7	16.8/13.1/10.3
	Power input(H/M/L)	W	15/10/6	30/26/21	35/19/12
Heating²	Capacity (H/M/L)	kW	3.131/2.628/2.077	3.711/3.138/2.65	3.942/3.296/2.826
	Water flow rate(H/M/L)	m³/h	0.32/0.28/0.23	0.37/0.32/0.28	0.42/0.36/0.32
	Water pressure drop(H/M/L)	kPa	23.5/17.1/11.3	24.1/17.9/13.1	26.8/19.2/14.5
	Power input(H/M/L)	W	17/10/6	32/18/11	35/18/11
Heating³	Capacity (H/M/L)	kW	3.564/2.989/2.356	4.251/3.584/3.023	4.508/3.789/3.222
	Water flow rate(H/M/L)	m³/h	0.36/0.31/0.25	0.41/0.36/0.31	0.47/0.40/0.36
	Water pressure drop(H/M/L)	kPa	29.8/21.7/14.3	30.4/22.2/16.7	36.1/25.9/19
	Power input(H/M/L)	W	17/10/6	31/18/11	35/19/11
Sound power level	(H/M/L)	dB(A)	51/45/39	54/47/42	56/51/43
Sound pressure level	(H/M/L)	dB(A)	39/33/27	42/35/30	44/39/31
Rated current		A	0.24	0.36	0.48
Fan motor	Type		DC motor	DC motor	DC motor
	Quantity		1	1	1
Fan	Type		Centrifugal, forward-curved Blades		
	Quantity		1	1	1
Coil	Row		2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6
	Diameter	mm	Ø7	Ø7	Ø7
Panel	Net dimensions (WxHxD)	mm	647x50x647	647x50x647	647x50x647
	Packing size (WxHxD)	mm	715x123x715	715x123x715	715x123x715
	Net weight	kg	2.5	2.5	2.5
	Gross weight	kg	4.5	4.5	4.5
Body	Net dimensions (WxHxD)	mm	575x261x575	575x261x575	575x261x575
	Packing size (WxHxD)	mm	675x320x675	675x320x675	675x320x675
	Net weight	kg	16.7	16.7	16.7
	Gross weight	kg	22.7	22.7	22.7
Pipe connections	Water inlet/outlet pipe	inch	Cold water: G3/4; Hot water: G1/2		
	Drain pipe	mm	ODØ25	ODØ25	ODØ25

Notes:

H: High fan speed; M: Medium fan speed; L: Low fan speed.

1: Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/1 9°C WB, entering/leaving water temperature 7°C /12°C.

2: Heating mode(1): (4-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 65/55°C.

3: Heating mode(2): (4-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 70/60°C.

4.Sound pressure level is tested in a semi-anechoic test room.

5.Sound power level is tested in a reverberation chamber.

Duct series



Model: 200/300/400/600/800/1000/1200CFM



Features

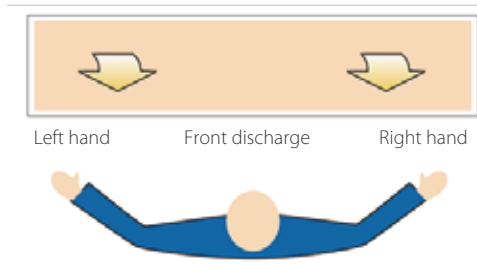
- 2, 3 or 4 row for 2-pipe system and 3 row can be customization for 4-pipe system.
- Different static pressures (12/30/50Pa) can be selected by dialing the PCB.
- Washable filter: Iron frame filter is standard, and aluminum frame filter can be customized.
- Compatible with two types of air return: Back return is standard ,bottom return is optional.
- Left or right hand piping connections are easily change in filed.
- Available for fresh air intake.

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



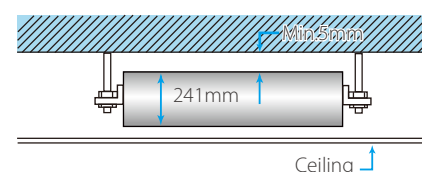
Flexible Installation

Left and right hand piping connections are optional, flexible installation.



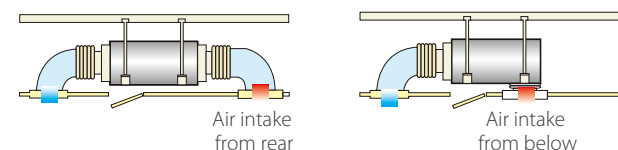
Compact Size

All the units are 241mm high, easy for limited space installation.



Flexible Air Inlet Port Installation

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

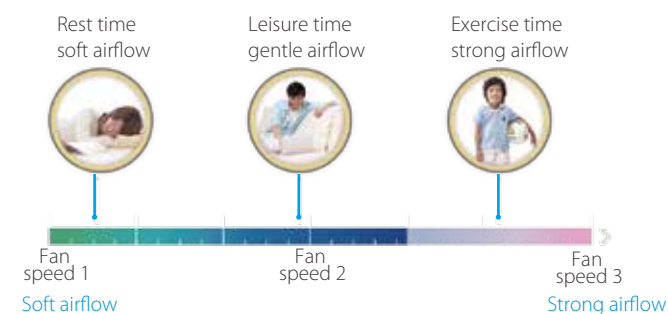


Extension water pan are optional to protect the ceiling from moisture.



Multiple Fan Speeds

The DC Series comes with 3 fan speed option to meet the needs of different indoor conditions.



Control solutions

The duct series controlled by Wired controller, Central controller or BMS need to be customization FCU KIT.

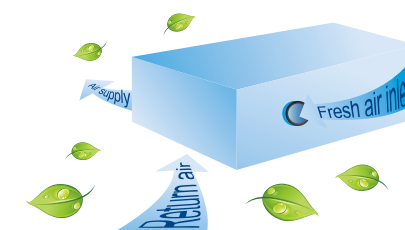


Fresh Air Intake

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

Knock out hole is available in the unit.

Accessories such as booster fan must be supplied on field and installed.



Washable filter

Iron frame filter is standard, and aluminum frame filter can be customized.

Air outlet flange and multi-direction pull-out filter can be customized.



2-Pipe 2-Row Duct

Model			MKT2-V200	MKT2-V300	MKT2-V400	MKT2-V500
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	439/295/221	615/439/310	792/622/413	887/620/443
		CFM	258/173/130	361/258/182	465/365/242	521/364/260
Standard external static pressure		Pa	12Pa (default); 30/50Pa can be set through dial switch on PCB			
Cooling¹	Capacity (H/M/L)	kW	2.02/1.52/1.17	2.82/2.33/1.79	3.31/2.78/2.14	3.83/3.16/2.55
	Water flow rate(H/M/L)	m³/h	0.37/0.28/0.22	0.51/0.41/0.32	0.59/0.50/0.38	0.68/0.56/0.46
	Water pressure drop(H/M/L)	kPa	6.3/3.62/2.17	14.16/10.5/7.33	19.37/14.79/9.57	23.7/17.1/11.9
	Power input(H/M/L)	W	18/9/6	25/15/11	29/16/9	42/20/11
Heating²	Capacity (H/M/L)	kW	2.57/1.89/1.47	3.56/2.8/2.08	4.19/3.42/2.49	4.84/3.9/3.01
	Water flow rate(H/M/L)	m³/h	0.47/0.34/0.27	0.62/0.50/0.37	0.72/0.6/0.45	0.84/0.69/0.53
	Water pressure drop(H/M/L)	kPa	5.64/4.5/2.9	10.54/10.3/6.3	16.20/16.6/10	30.8/32.4/20
	Power input(H/M/L)	W	19/9/7	25/15/11	32/17/9	45/22/12
Heating³	Capacity (H/M/L)	kW	2.98/2.22/1.73	4.12/3.26/2.39	4.91/4.1/3.02	5.6/4.49/3.45
	Water flow rate(H/M/L)	m³/h	0.37/0.28/0.22	0.51/0.41/0.32	0.59/0.50/0.38	0.68/0.56/0.46
	Water pressure drop(H/M/L)	kPa	7.91/3.5/2.3	15.39/7.41/4.83	23/12.09/7.81	29.04/14.16/9.71
	Power input(H/M/L)	W	19/9/7	25/15/11	31/18/9	45/21/11
Sound pressure level	0Pa (H/M/L)	dB(A)	37.5/27.4/24.0	40.3/33.1/26.7	41.1/34.7/26.8	44.6/36.8/29.4
Fan motor	Type		DC Motor	DC Motor	DC Motor	DC Motor
	Quantity		1	1	1	1
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		1	2	2	2
Coil	Row		2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Ø9.52	Ø9.52	Ø9.52	Ø9.52
Net dimensions (WxHxD)		mm	741x241x522	841x241x522	941x241x522	941x241x522
Packing size (WxHxD)		mm	790x260x555	890x260x560	990x260x560	990x260x560
Net weight		kg	16.5	18.5	20	20
Gross weight		kg	19	21.4	23.2	23.2
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Model			MKT2-V600	MKT2-V800	MKT2-V1000	MKT2-V1200
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	1081/821/586	1492/1071/797	1824/1332/906	2327/1669/1135
		CFM	635/482/344	877/630/468	1072/783/532	1368/981/667
Standard external static pressure		Pa	12Pa (default); 30/50Pa can be set through dial switch on PCB			
Cooling¹	Capacity (H/M/L)	kW	4.78/4.01/3.09	6.7/5.49/4.45	7.92/6.62/5.15	9.83/8.5/6.46
	Water flow rate(H/M/L)	m³/h	0.85/0.69/0.54	1.19/0.96/0.80	1.43/1.17/0.91	1.74/1.42/1.12
	Water pressure drop(H/M/L)	kPa	14.2/9.8/6.1	15.1/10.89/7.82	23.2/16.44/10.94	50.33/30.4/21.71
	Power input(H/M/L)	W	53/25/12	62/28/16	93/42/19	111/53/24
Heating²	Capacity (H/M/L)	kW	6.25/5.17/4.03	8.39/6.64/5.2	9.92/7.94/5.86	12.58/10.24/7.57
	Water flow rate(H/M/L)	m³/h	1.10/0.91/0.7	1.46/1.17/0.91	1.69/1.38/1.01	2.17/1.79/1.34
	Water pressure drop(H/M/L)	kPa	12.36/14.2/8.9	13.26/13.1/8.28	19.72/18.87/11.07	38.30/41.81/26.5
	Power input(H/M/L)	W	58/27/13	66/30/16	100/44/19	118/55/24
Heating³	Capacity (H/M/L)	kW	7.19/5.92/4.55	9.87/7.83/6.29	11.63/9.37/6.96	14.58/11.82/8.83
	Water flow rate(H/M/L)	m³/h	0.85/0.69/0.54	1.19/0.96/0.80	1.43/1.17/0.91	1.74/1.42/1.12
	Water pressure drop(H/M/L)	kPa	19.88/8.56/5.4	19.36/9.03/6.4	26.68/13.96/9.1	60.7/26.5/17.8
	Power input(H/M/L)	W	58/27/13	66/30/17	99/45/19	119/55/24
Sound pressure level	0Pa (H/M/L)	dB(A)	46.1/38.9/29.9	47.7/39.4/31.1	50.2/43.0/33.0	50.9/44.0/33.8
Fan motor	Type		DC Motor	DC Motor	DC Motor	DC Motor
	Quantity		1	2	2	2
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		2	4	4	4
Coil	Row		2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Ø9.52	Ø9.52	Ø9.52	Ø9.52
Net dimensions (WxHxD)		mm	1161x241x522	1461x241x522	1566x241x522	1856x241x522
Packing size (WxHxD)		mm	1210x260x560	1510x260x560	1615x260x560	1905x260x560
Net weight		kg	22.2	31.4	32.5	37.5
Gross weight		kg	26	35.8	37.2	42.8
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Notes:
H: High fan speed; M: Medium fan speed; L: Low fan speed.
1. Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C /12°C.
2. Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C.
3. Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water teperature/water flow 50°C/*(same water flow as in standard rating condition in cooling)
4. Sound pressure level is tested in a semi-anechoic test room.
5. The external static pressure test condition is 0 Pa.

2-Pipe 3-Row Duct

Model			MKT3-V200	MKT3-V300	MKT3-V400	MKT3-V500
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	411/273/171	531/442/311	734/564/389	865/626/441
		CFM	241/160/100	312/260/182	431/331/228	508/368/259
Standard external static pressure		Pa	12Pa (default); 30/50Pa can be set through dial switch on PCB			
Cooling¹	Capacity (H/M/L)	kW	2.35/1.72/1.32	3.12/2.72/2.1	3.99/3.26/2.5	4.46/3.59/2.83
	Water flow rate(H/M/L)	m³/h	0.43/0.31/0.25	0.6/0.48/0.37	0.69/0.57/0.43	0.79/0.63/0.50
	Water pressure drop(H/M/L)	kPa	13.6/8.6/6.3	23.8/16.4/11.3	13/9.3/5.8	16.4/11.3/7.6
	Power input(H/M/L)	W	17/9/7	23/15/10	26/15/9	39/19/11
Heating²	Capacity (H/M/L)	kW	2.68/1.99/1.42	3.82/3.08/2.28	4.7/3.85/2.77	5.27/4.21/3.21
	Water flow rate(H/M/L)	m³/h	0.49/0.35/0.26	0.67/0.54/0.41	0.82/0.67/0.50	0.92/0.73/0.57
	Water pressure drop(H/M/L)	kPa	12.6/7.6/4.9	25/17.6/11.3	13/10.5/6.2	18.4/12.4/8.1
	Power input(H/M/L)	W	18/9/7	23/15/10	26/16/9	43/21/11
Heating³	Capacity (H/M/L)	kW	3.17/2.27/1.75	4.51/3.61/2.71	5.52/4.55/3.27	6.26/4.99/3.81
	Water flow rate(H/M/L)	m³/h	0.43/0.31/0.25	0.60/0.48/0.37	0.69/0.57/0.43	0.79/0.63/0.50
	Water pressure drop(H/M/L)	kPa	10.3/6.1/4.2	19.2/12.9/8.5	10.8/7.7/4.8	13.7/9.5/6.3
	Power input(H/M/L)	W	18/9/7	23/15/10	28/16/9	43/21/11
Sound pressure level	0Pa (H/M/L)	dB(A)	38.1/28.4/23.4	36.4/29.5/20.7	38.4/32.2/24.0	44.3/36.3/27.9
Fan motor	Type		DC Motor	DC Motor	DC Motor	DC Motor
	Quantity		1	1	1	1
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		1	2	2	2
Coil	Row		3	3	3	3
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Ø9.52	Ø9.52	Ø9.52	Ø9.52
Net dimensions (WxHxD)		mm	741x241x522	841x241x522	941x241x522	941x241x522
Packing size (WxHxD)		mm	790x260x555	890x260x560	990x260x560	990x260x560
Net weight		kg	16.7	19	21	21
Gross weight		kg	19.7	22	24	24
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Model			MKT3-V600	MKT3-V800	MKT3-V1000	MKT3-V1200
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	1022/760/544	1452/1038/781	1824/1332/906	2134/1581/1083
		CFM	601/447/320	854/610/459	1072/783/532	1255/930/637
Standard external static pressure		Pa	12Pa (default); 30/50Pa can be set through dial switch on PCB			
Cooling¹	Capacity (H/M/L)	kW	5.85/4.82/3.78	8.02/6.36/5.08	8.96/7.37/5.66	10.79/8.86/6.79
	Water flow rate(H/M/L)	m³/h	1.05/0.85/0.65	1.42/1.11/0.89	1.59/1.29/0.98	1.93/1.57/1.20
	Water pressure drop(H/M/L)	kPa	31.4/22/14.2	31.6/20.5/13.9	24.1/16.9/10.8	26.3/18.8/12.8
	Power input(H/M/L)	W	49/24/12	60/28/16	96/43/19	106/49/24
Heating²	Capacity (H/M/L)	kW	6.62/5.38/4	9.15/7.08/5.58	10.74/8.55/6.35	12.62/10.15/7.47
	Water flow rate(H/M/L)	m³/h	1.15/0.94/0.71	1.59/1.26/0.98	1.88/1.51/1.13	2.23/1.78/1.31
	Water pressure drop(H/M/L)	kPa	31.7/22.2/13.6	32.9/21.6/13.9	28.3/19.4/12	29.4/20/11.9
	Power input(H/M/L)	W	53/26/12	65/30/17	100/45/20	115/52/22
Heating³	Capacity (H/M/L)	kW	7.84/6.35/4.81	10.88/8.46/6.68	12.61/10.04/7.35	14.9/11.92/8.89
	Water flow rate(H/M/L)	m³/h	1.05/0.85/0.65	1.42/1.11/0.89	1.59/1.29/0.98	1.93/1.57/1.20
	Water pressure drop(H/M/L)	kPa	26.4/18.2/11.4	26.3/16.9/11.5	21.1/14.8/9.5	22.6/16/10.2
	Power input(H/M/L)	W	52/25/13	65/30/17	99/44/19	114/51/22
Sound pressure level	0Pa (H/M/L)	dB(A)	46.1/39.0/30.3	44.9/36.1/27.7	47.8/40.7/30.7	48.9/41.8/31.7
Fan motor	Type		DC Motor	DC Motor	DC Motor	DC Motor
	Quantity		1	2	2	2
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		2	4	4	4
Coil	Row		3	3	3	3
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Ø9.52	Ø9.52	Ø9.52	Ø9.52
Net dimensions (WxHxD)		mm	1161x241x522	1461x241x522	1566x241x522	1856x241x522
Packing size (WxHxD)		mm	1210x260x560	1510x260x560	1615x260x560	1905x260x560
Net weight		kg	23.7	33	34.7	39.2
Gross weight		kg	27.2	37.2	39.2	44.4
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Notes:
H: High fan speed; M: Medium fan speed; L: Low fan speed.
1. Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/19°C WB, entering/leaving water temperature 7°C /12°C.
2. Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C.
3. Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water teperature/water flow 50°C/*(same water flow as in standard rating condition in cooling)
4. Sound pressure level is tested in a semi-anechoic test room.
5. The external static pressure test condition is 0 Pa.

2-Pipe 4-Row Duct

Model			MKT4-V200	MKT4-V300	MKT4-V400	MKT4-V500
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	441/297/227	627/468/338	778/537/349	884/642/461
		CFM	259/174/133	368/275/198	458/316/205	520/377/271
Standard external static pressure		Pa	12Pa (default); 30/50Pa can be set through dial switch on PCB			
Cooling¹	Capacity (H/M/L)	kW	2.22/1.59/1.2	3.19/2.58/1.87	4.06/3.26/2.41	4.46/3.56/2.78
	Water flow rate(H/M/L)	m³/h	0.40/0.30/0.23	0.57/0.47/0.34	0.72/0.59/0.43	0.80/0.63/0.50
	Water pressure drop(H/M/L)	kPa	2.44/1.52/1	5.24/3.61/2.36	8.4/5.9/3.49	11.6/8.1/5.6
	Power input(H/M/L)	W	17/9/6	21/12/7	29/16/9	43/23/14
Heating²	Capacity (H/M/L)	kW	2.81/2/1.54	3.88/3.09/2.35	4.19/3.42/2.49	5.44/4.23/3.23
	Water flow rate(H/M/L)	m³/h	0.51/0.37/0.29	0.67/0.56/0.42	0.84/0.68/0.51	0.96/0.76/0.57
	Water pressure drop(H/M/L)	kPa	2/1.76/1.2	4.3/4.29/2.8	6.99/6.4/3.8	10.64/9.83/6.68
	Power input(H/M/L)	W	18/9/7	23/13/8	32/18/10	41/22/12
Heating³	Capacity (H/M/L)	kW	3.23/2.32/1.75	4.5/3.6/2.68	5.6/4.59/3.36	6.25/4.88/3.74
	Water flow rate(H/M/L)	m³/h	0.40/0.30/0.23	0.57/0.47/0.34	0.72/0.59/0.43	0.80/0.63/0.50
	Water pressure drop(H/M/L)	kPa	2.99/1.12/0.71	5.85/3.1/1.9	9.1/4.9/2.8	14.06/7.6/5.5
	Power input(H/M/L)	W	19/9/6	23/13/8	32/18/10	42/21/11
Sound pressure level	0Pa (H/M/L)	dB(A)	37.3/27.4/22.2	39.6/32.5/25.0	41.1/34.5/26.4	44.8/37.2/29.8
Fan motor	Type		DC Motor	DC Motor	DC Motor	DC Motor
	Quantity		1	1	1	1
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		1	2	2	2
Coil	Row		4	4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (W×H×D)		mm	741×241×522	841×241×522	941×241×522	941×241×522
Packing size (W×H×D)		mm	790×260×555	890×260×560	990×260×560	990×260×560
Net weight		kg	17.8	20	21.9	21.9
Gross weight		kg	20.4	22.9	25.1	25.1
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Model			MKT4-V600	MKT4-V800	MKT4-V1000	MKT4-V1200
Power supply		V/Ph/Hz	220-240/1/50			
Air flow (H/M/L)		m³/h	1056/793/575	1506/1084/822	1813/1341/932	2134/1617/1119
		CFM	621/466/338	885/637/483	1066/788/548	1255/951/658
Standard external static pressure		Pa	12Pa (default); 30/50Pa can be set through dial switch on PCB			
Cooling¹	Capacity (H/M/L)	kW	5.87/4.78/3.68	6.65/5.04/3.61	7.98/6.19/4.37	9.76/7.81/5.72
	Water flow rate(H/M/L)	m³/h	1.06/0.86/0.65	1.19/0.88/0.64	1.47/1.12/0.78	1.78/1.41/1.02
	Water pressure drop(H/M/L)	kPa	19.4/13.6/8.5	8.8/5.09/2.8	13.81/8.63/4.75	22.31/15/8.98
	Power input(H/M/L)	W	51/25/12	61/27/16	93/49/21	109/50/22
Heating²	Capacity (H/M/L)	kW	6.47/5.18/3.91	8.36/6.32/4.77	9.92/7.94/5.86	11.76/9.32/6.76
	Water flow rate(H/M/L)	m³/h	1.11/0.90/0.67	1.43/1.12/0.86	1.68/1.35/1.00	2.01/1.60/1.15
	Water pressure drop(H/M/L)	kPa	16.31/12.6/7.41	7.7/6.97/4.3	19.72/18.9/11.1	20.04/16.93/9.62
	Power input(H/M/L)	W	56/27/13	66/30/16	102/46/20	119/55/24
Heating³	Capacity (H/M/L)	kW	7.72/6.19/4.68	9.55/7.14/5.23	11.55/9/6.46	14.34/11.31/8.3
	Water flow rate(H/M/L)	m³/h	1.06/0.86/0.65	1.19/0.88/0.64	1.47/1.12/0.78	1.78/1.41/1.02
	Water pressure drop(H/M/L)	kPa	17.92/11.31/7	10.9/4.49/2.5	15.42/7.5/4.1	24.94/13.46/13.48
	Power input(H/M/L)	W	56/27/13	67/29/16	103/46/20	121/54/23
Sound pressure level	0Pa (H/M/L)	dB(A)	46.1/39.4/30.7	47.4/39.1/32.1	50.4/42.7/33.1	50.7/43.8/34.5
Fan motor	Type		DC Motor	DC Motor	DC Motor	DC Motor
	Quantity		1	2	2	2
Fan	Type		Centrifugal, forward-curved Blades			
	Quantity		2	4	4	4
Coil	Row		4	4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6
	Diameter	mm	Φ9.52	Φ9.52	Φ9.52	Φ9.52
Net dimensions (W×H×D)		mm	1161×241×522	1461×241×522	1566×241×522	1856×241×522
Packing size (W×H×D)		mm	1210×260×560	1510×260×560	1615×260×560	1905×260×560
Net weight		kg	25	34.8	36.4	41.9
Gross weight		kg	28.8	39.2	41.9	47.2
Water inlet/outlet pipe		inch	RC3/4	RC3/4	RC3/4	RC3/4
Drain pipe		inch	ZG3/4	ZG3/4	ZG3/4	ZG3/4

Notes:

H: High fan speed; M: Medium fan speed; L: Low fan speed.

1. Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/1 9°C WB, entering/leaving water temperature 7°C /12°C.

2. Heating mode (1) : (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C.

3. Heating mode (2) : (2-pipe coil): entering air temperature 20°C DB, enter water teperature/water flow 50°C/(same water flow as in standard rating condition in cooling)

4. Sound pressure level is tested in a semi-anechoic test room.

5. The external static pressure test condition is 0 Pa.

Wall Mounted Series



Model: 250/300/400/500/600 CFM



R05
Standard

Features

- Display shut off (for Type A and P panels though Wireless Remote Controllers RM12F/BGF-E).
- Built-in 3-way electromagnetic valve.
- Remote controller as standard, wired controller is optional.
- Easy and low cost installation.
- The panel can be easily removed, simple maintenance and easy to change filter.
- Multi-directional outlet pipe feature: left\right\rear, to meet the needs of different rooms.
- Compatible with 0-10V control function.

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



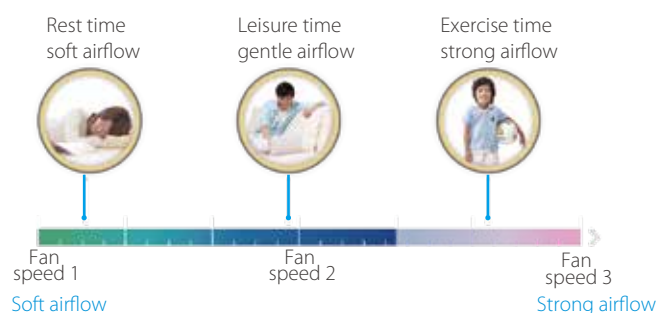
Digital Display On/Off

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



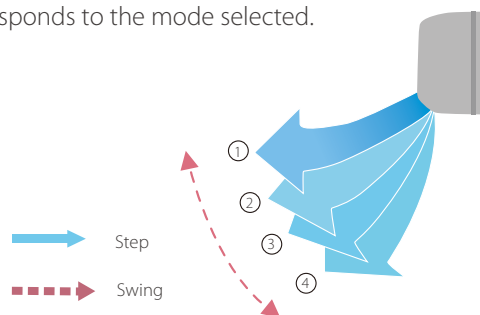
Multiple Fan Speeds

The DC Series comes with 3 fan speed option to meet the needs of different indoor conditions.



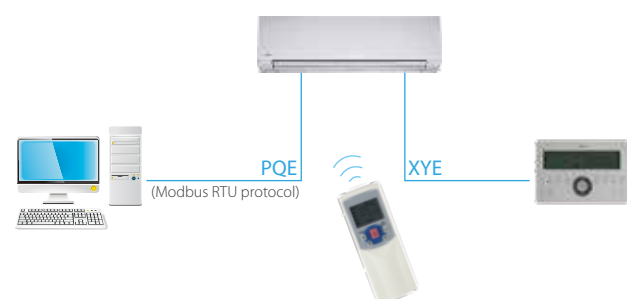
Auto Swing Louver

The Auto Swing Louver function ensures that the air direction corresponds to the mode selected.



Control solutions

The fan coil units can be connected to MDV central controllers through the customized XYE port, also can be connected to Modbus gateway through the customized PQE port with Modbus RTU protocol.



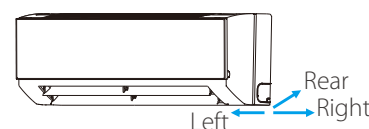
Variety stylish Panel

Variety stylish panel with three options (A Type, P Type and S Type), perfect fusion in all kinds of decoration.



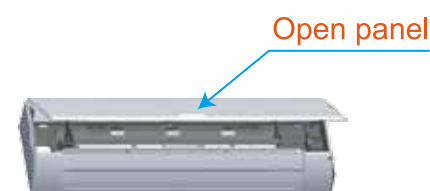
Flexible Pipe Outlet Direction

Multi-outlet pipe method for both refrigerant pipe and drain pipe: left/right/rear, more flexible for installation.



Easy Maintenance

Removable front panel making maintenance convenient.



Exposed Installation, No Need Ceilings

The Wall Mounted can be installed against a wall, no need ceilings, simplifying installation.



Wall Mounted (A Type)



Model			MKG-V250C	MKG-V300C	MKG-V400C	MKG-V500C	MKG-V600C
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)		m³/h	492/454/400	585/485/413	825/689/590	862/741/634	979/849/717
		CFM	289/267/235	344/285/242	485/405/347	507/435/372	575/499/421
Cooling¹	Capacity (H/M/L)	kW	2.7/2.59/2.39	2.91/2.54/2.19	3.81/3.3/2.88	4.47/3.98/3.48	4.87/4.26/3.79
	Water flow rate(H/M/L)	m³/h	0.48/0.46/0.42	0.51/0.45/0.38	0.67/0.57/0.51	0.77/0.68/0.61	0.85/0.72/0.65
	Water pressure drop(H/M/L)	kPa	31.61/28.63/25.36	37.2/29.73/23.36	56.75/41.23/33.02	41.17/33.54/27.05	50.68/39.47/33.66
	Power input(H/M/L)	W	13/11/10	15/11/9	34/22/15	26/18/13	38/26/18
Heating²	Capacity (H/M/L)	kW	2.94/2.8/2.58	3.23/2.77/2.42	4.3/3.65/3.09	4.84/4.23/3.62	5.26/4.68/3.96
	Water flow rate(H/M/L)	m³/h	0.51/0.49/0.46	0.56/0.49/0.42	0.73/0.64/0.56	0.84/0.73/0.64	0.89/0.80/0.68
	Water pressure drop(H/M/L)	kPa	32.66/34.89/30.24	34.12/31.53/25.1	51.86/47.53/35.69	36.82/33.83/26.26	47.12/42.75/32.95
	Power input(H/M/L)	W	11/11/9	14/10/8	31/20/14	22/16/12	33/23/16
Heating³	Capacity (H/M/L)	kW	3.29/3.03/2.63	3.76/3.22/2.77	5.08/4.33/3.77	5.68/4.94/4.24	6.31/5.57/4.77
	Water flow rate(H/M/L)	m³/h	0.48/0.46/0.42	0.51/0.45/0.38	0.67/0.57/0.51	0.77/0.68/0.61	0.85/0.72/0.65
	Water pressure drop(H/M/L)	kPa	37.49/30.25/26.53	40.64/27.03/20.98	61.94/37.88/30.34	43.74/29.69/23.98	51.65/36.3/30.3
	Power input(H/M/L)	W	12/10/8	14/10/8	31/20/14	23/16/12	33/23/16
Sound power level (H/M/L)		dB(A)	44/42/39	44/39/35	57/51/47	50/46/42	56/52/47
Rated current		A	0.16	0.19	0.28	0.32	0.39
Fan motor	Type		DC Motor	DC Motor	DC Motor	DC Motor	DC Motor
	Quantity		1	1	1	1	1
Fan	Type		Tangential fan	Tangential fan	Tangential fan	Tangential fan	Tangential fan
	Quantity		1	1	1	1	1
Coil	Row		2	2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7	Φ7	Φ7
Net dimensions (WxHxD)		mm	915×290×233	915×290×233	915×290×233	1072×315×237	1072×315×237
Packing size (WxHxD)		mm	1020×390×315	1020×390×315	1020×390×315	1180×415×315	1180×415×315
Net weight		kg	12.7	12.7	12.7	15.1	14.9
Gross weight		kg	17.3	17.6	16.3	19	18.6
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ20	ODΦ20	ODΦ20	ODΦ20	ODΦ20

Notes:

Based on Eurovent conditions:

H: High fan speed; M: Medium fan speed; L: Low fan speed.

1 :Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/1 9°C WB, entering/leaving water temperature 7°C /12°C, high fan speed.

2 :Heating mode (1): (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.

3 :Heating mode (2): (2-pipe coil): entering air temperature 20°C DB, enter water teperaure/water flow 50°C/*(same water flow as in standard rating condition in cooling)

Wall Mounted (P Type)



Model			MKG-V250D	MKG-V300D	MKG-V400D	MKG-V500D	MKG-V600D
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)		m³/h	492/454/400	585/485/413	825/689/590	862/741/634	979/849/717
		CFM	289/267/235	344/285/242	485/405/347	507/435/372	575/499/421
Cooling¹	Capacity (H/M/L)	kW	2.7/2.59/2.39	2.91/2.54/2.19	3.81/3.3/2.88	4.47/3.98/3.48	4.87/4.26/3.79
	Water flow rate(H/M/L)	m³/h	0.48/0.46/0.42	0.51/0.45/0.38	0.67/0.57/0.51	0.77/0.68/0.61	0.85/0.72/0.65
	Water pressure drop(H/M/L)	kPa	31.61/28.63/25.36	37.2/29.73/23.36	56.75/41.23/33.02	41.17/33.54/27.05	50.68/39.47/33.66
	Power input(H/M/L)	W	13/11/10	15/11/9	34/22/15	26/18/13	38/26/18
Heating²	Capacity (H/M/L)	kW	2.94/2.8/2.58	3.23/2.77/2.42	4.3/3.65/3.09	4.84/4.23/3.62	5.26/4.68/3.96
	Water flow rate(H/M/L)	m³/h	0.51/0.49/0.46	0.56/0.49/0.42	0.73/0.64/0.56	0.84/0.73/0.64	0.89/0.80/0.68
	Water pressure drop(H/M/L)	kPa	32.66/34.89/30.24	34.12/31.53/25.1	51.86/47.53/35.69	36.82/33.83/26.26	47.12/42.75/32.95
	Power input(H/M/L)	W	11/11/9	14/10/8	31/20/14	22/16/12	33/23/16
Heating³	Capacity (H/M/L)	kW	3.29/3.03/2.63	3.76/3.22/2.77	5.08/4.33/3.77	5.68/4.94/4.24	6.31/5.57/4.77
	Water flow rate(H/M/L)	m³/h	0.48/0.46/0.42	0.51/0.45/0.38	0.67/0.57/0.51	0.77/0.68/0.61	0.85/0.72/0.65
	Water pressure drop(H/M/L)	kPa	37.49/30.25/26.53	40.64/27.03/20.98	61.94/37.88/30.34	43.74/29.69/23.98	51.65/36.3/30.3
	Power input(H/M/L)	W	12/10/8	14/10/8	31/20/14	23/16/12	33/23/16
Sound power level (H/M/L)		dB(A)	44/42/39	44/39/35	57/51/47	50/46/42	56/52/47
Rated current		A	0.16	0.19	0.28	0.32	0.39
Fan motor	Type			DC Motor	DC Motor	DC Motor	DC Motor
	Quantity			1	1	1	1
Fan	Type			Tangential fan	Tangential fan	Tangential fan	Tangential fan
	Quantity			1	1	1	1
Coil	Row			2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7	Φ7	Φ7
Net dimensions (WxHxD)		mm	915×290×229	915×290×229	915×290×229	1072×315×232	1072×315×232
Packing size (WxHxD)		mm	1020×390×315	1020×390×315	1020×390×315	1180×415×315	1180×415×315
Net weight		kg	12.7	12.7	12.7	15.1	14.9
Gross weight		kg	17.3	17.6	16.3	19	18.6
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ20	ODΦ20	ODΦ20	ODΦ20	ODΦ20

Notes:
Based on Eurovent conditions:
H: High fan speed; M: Medium fan speed; L: Low fan speed.
1 :Cooling mode (2 and 4-pipe coil): entering air temperature 27°C DB/1 9°C WB, entering/leaving water temperature 7°C /12°C, high fan speed.
2 :Heating mode (1): (2-pipe coil): entering air temperature 20°C DB, entering/leaving water temperature 45/40°C, high fan speed.
3 :Heating mode (2): (2-pipe coil): entering air temperature 20°C DB, enter water teperature/water flow 50°C/*(same water flow as in standard rating condition in cooling)

Wall Mounted (S Type)



Model			MKG-V250B	MKG-V300B	MKG-V400B	MKG-V500B	MKG-V600B
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)		m³/h	492/454/400	585/485/413	825/689/590	862/741/634	979/849/717
		CFM	289/267/235	344/285/242	485/405/347	507/435/372	575/499/421
Cooling¹	Capacity (H/M/L)	kW	2.7/2.59/2.39	2.91/2.54/2.19	3.81/3.3/2.88	4.47/3.98/3.48	4.87/4.26/3.79
	Water flow rate(H/M/L)	m³/h	0.48/0.46/0.42	0.51/0.45/0.38	0.67/0.57/0.51	0.77/0.68/0.61	0.85/0.72/0.65
	Water pressure drop(H/M/L)	kPa	31.61/28.63/25.36	37.2/29.73/23.36	56.75/41.23/33.02	41.17/33.54/27.05	50.68/39.47/33.66
	Power input(H/M/L)	W	13/11/10	15/11/9	34/22/15	26/18/13	38/26/18
Heating²	Capacity (H/M/L)	kW	2.94/2.8/2.58	3.23/2.77/2.42	4.3/3.65/3.09	4.84/4.23/3.62	5.26/4.68/3.96
	Water flow rate(H/M/L)	m³/h	0.51/0.49/0.46	0.56/0.49/0.42	0.73/0.64/0.56	0.84/0.73/0.64	0.89/0.80/0.68
	Water pressure drop(H/M/L)	kPa	32.66/34.89/30.24	34.12/31.53/25.1	51.86/47.53/35.69	36.82/33.83/26.26	47.12/42.75/32.95
	Power input(H/M/L)	W	11/11/9	14/10/8	31/20/14	22/16/12	33/23/16
Heating³	Capacity (H/M/L)	kW	3.29/3.03/2.63	3.76/3.22/2.77	5.08/4.33/3.77	5.68/4.94/4.24	6.31/5.57/4.77
	Water flow rate(H/M/L)	m³/h	0.48/0.46/0.42	0.51/0.45/0.38	0.67/0.57/0.51	0.77/0.68/0.61	0.85/0.72/0.65
	Water pressure drop(H/M/L)	kPa	37.49/30.25/26.53	40.64/27.03/20.98	61.94/37.88/30.34	43.74/29.69/23.98	51.65/36.3/30.3
	Power input(H/M/L)	W	12/10/8	14/10/8	31/20/14	23/16/12	33/23/16
Sound pressure level (H/M/L)		dB(A)	32/30/27	32/27/23	45/39/35	38/34/30	44/40/35
Fan motor	Type			DC Motor	DC Motor	DC Motor	DC Motor
	Quantity			1	1	1	1
Fan	Type			Tangential fan	Tangential fan	Tangential fan	Tangential fan
	Quantity			1	1	1	1
Coil	Row			2	2	2	2
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7	Φ7	Φ7	Φ7	Φ7
Net dimensions (WxHxD)		mm	915×290×230	915×290×230	915×290×230	1072×315×230	1072×315×230
Packing size (WxHxD)		mm	1020×390×315	1020×390×315	1020×390×315	1180×415×315	1180×415×315
Net weight		kg	12.7	12.7	12.7	15.1	14.9
Gross weight		kg	17.3	17.6	16.3	19	18.6
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ20	ODΦ20	ODΦ20	ODΦ20	ODΦ20

Note:
Based on Eurovent conditions:
H :High fan speed; M: Medium fan speed; L: Low fan speed.
1 :Cooling mode: entering air temperature 27°C DB/1 9°C WB, entering/leaving water temperature 7°C /12°C, high fan speed.
2 :Heating mode:entering air temperature 20°C DB, enter water teperature/water flow 50°C/*(same water flow as in standard rating condition in cooling)
3 :Noise is tested in a semi-anechoic test room.

2nd Generation Ceiling&Floor series



Model: 150/250/350/500/700/800 CFM



KJR-75A
Optional

Features

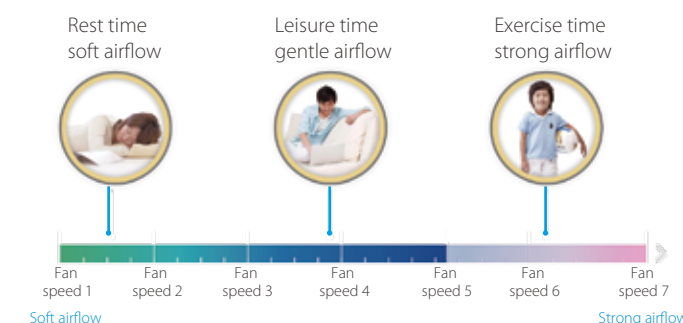
- 3 or 4 rows coil are optional for whole series .
- 2-Pipe and 4-Pipe are optional for whole series.
- Ultra-thin with 200 mm thickness.
- Hysteresis temperature can be set in heating and cooling mode by PCB switch, field adjustable.
- With/without forced fan on can be set by PCB switch, field adjustable.
- The XYE port(Centralized) and PQE port (Modbus) are can be customized.
- 0-10V fan speed control port is optional.
- Floor standing/Horizontal/ Concealed type installation available (For floor standing : The footing is optional).
- Auto mode and 7 fan speed (by 75A wired controller).

Floor standing unit with multi casing options can be installed quickly and easily in new or existing facilities in a variety of applications



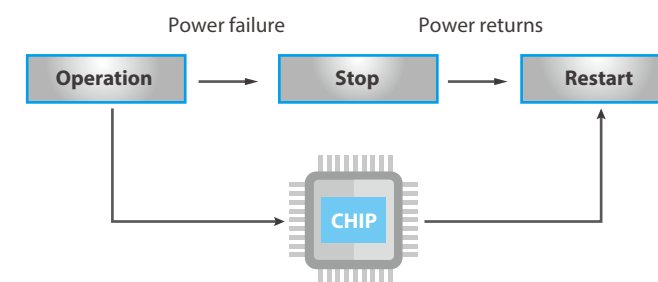
Multiple Fan Speeds

The DC Series comes with 3 fan speed option to meet the needs of different indoor conditions. (7 fan speed should be used KJR-75A wired controller)



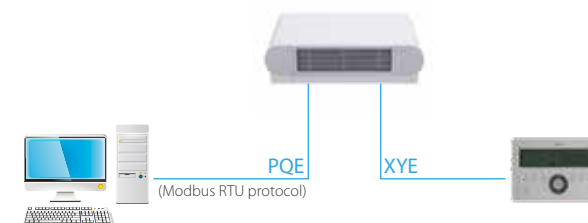
Auto restart

In the event of a sudden power failure during operation,unit restarts automatically and the unit will operate based on the previous setting (operating mode, temperature setting and fan speed).



Control solutions

The fan coil units can be connected to MDV central controllers through the customized XYE port, also can be connected to Modbus gateway through the customized PQE port with Modbus RTU protocol.



Multiple Appearance Options

The Floor Standing Unit has three appearance options to meet different installation requirement, the H3 (concealed) unit is designed to be concealed in walls while the H1 (front air intake) and H2 (underside air intake) offer a choice of air intake options.

Concealed Type
H3 Series



Exposed Type
(air return from bottom)
H2 Series



Exposed Type
(air return from side)
H1 Series



Ease of Installation and Maintenance

The ceiling and floor unit offers exposed installation. The installation and maintenance is easy. The maintenance of the machine is quite easy and the key components can be accessed from the bottom of the machine.



Ceiling and Floor Installation Option

The unit is uniquely designed with the possibility to be installed beneath the ceiling or sitting on the floor to suit any interior design requirements.



2- Pipe 2nd Generation Ceiling&Floor

Model			MKH1-V150-R3	MKH1-V150-R4	MKH1-V250-R3	MKH1-V250-R4	MKH1-V350-R3	MKH1-V350-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)		m³/h	245/160/135	245/180/130	380/245/140	380/240/110	580/435/310	580/430/300
		CFM	144/94/79	144/106/76	224/144/82	224/141/65	341/256/182	341/253/176
External static pressure		Pa	0					
Cooling	Capacity (H/M/L)	kW	1.44/1.01/0.88	1.87/1.59/1.16	2.23/1.84/1.13	2.55/1.90/1.26	3.41/2.81/2.16	3.80/3.11/2.36
	Water flow rate(H/M/L)	m³/h	0.25/0.17/0.15	0.32/0.27/0.2	0.38/0.32/0.19	0.44/0.33/0.22	0.58/0.48/0.37	0.65/0.53/0.40
	Water pressure drop(H/M/L)	kPa	13.4/7.9/6.0	26.1/20.1/11.8	12.7/9.5/4.4	23.2/13.5/6.6	33.4/24.0/15.0	36.5/25.3/15.0
He ating	Capacity (H/M/L)	kW	1.50/1.02/0.88	1.97/1.68/1.20	2.47/2.00/1.27	2.63/1.92/1.27	3.70/3.02/2.29	3.90/3.13/2.43
	Water flow rate(H/M/L)	m³/h	0.26/0.17/0.15	0.34/0.29/0.21	0.42/0.34/0.22	0.45/0.33/0.22	0.63/0.52/0.39	0.67/0.54/0.40
	Water pressure drop(H/M/L)	kPa	14.5/7.3/5.6	24.0/18.8/9.9	13.6/9.8/4.3	21.8/12.2/5.9	34.2/23.8/14.5	35.6/24.7/13.9
Power input (H/M/L)		W	19/15/10	20/16/11	20/13/10	21/12/8	27/18/11	30/18/12
Sound power level		(H/M/L) dB(A)	47/36/34	52/46/39	43/35/27	46/38/30	52/45/37	52/45/37
Fan motor	Type	Low noise DC fan motor						
	Quantity		1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		1	1	2	2	2	2
Coil	Row		3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	790x495x211	790x495x211	1020x495x211	1020x495x211	1240x495x211	1240x495x211
	Packing size (WxHxD)	mm	895x595x300	895x595x300	1125x595x300	1125x595x300	1345x595x300	1345x595x300
	Net weight	kg	18.0	18.5	21.5	22.0	25.5	26.5
	Gross weight	kg	23.5	24.0	27.5	28.0	32.5	33.5
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Model			MKH1-V500-R3	MKH1-V500-R4	MKH1-V700-R3	MKH1-V700-R4	MKH1-V800-R3	MKH1-V800-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)		m³/h	780/550/380	780/560/390	1050/750/450	1050/770/460	1150/850/570	1150/860/600
		CFM	459/324/224	459/329/229	618/441/265	618/453/271	676/500/335	676/506/353
External static pressure		Pa	0					
Cooling	Capacity (H/M/L)	kW	4.25/3.43/2.67	4.73/3.82/2.85	4.94/3.94/2.77	5.60/4.58/3.19	6.21/5.17/3.86	7.30/5.88/4.28
	Water flow rate(H/M/L)	m³/h	0.73/0.59/0.46	0.81/0.65/0.49	0.85/0.68/0.47	0.96/0.79/0.55	1.06/0.89/0.66	1.25/1.01/0.73
	Water pressure drop(H/M/L)	kPa	53.5/35.8/24.1	53.0/35.9/21.2	44.7/29.5/15.6	28.9/19.2/10.1	37.3/28.5/16.4	63.0/40.8/22.5
Heating	Capacity (H/M/L)	kW	4.64/3.65/2.77	5.12/3.98/2.96	5.29/4.20/2.96	6.22/4.95/3.37	6.80/5.46/3.98	7.70/6.02/4.29
	Water flow rate(H/M/L)	m³/h	0.80/0.63/0.47	0.88/0.68/0.51	0.91/0.72/0.51	1.07/0.85/0.58	1.17/0.94/0.68	1.32/1.03/0.74
	Water pressure drop(H/M/L)	kPa	53.6/36.4/22.0	52.0/35.6/20.0	49.0/33.2/17.0	33.2/22.5/11.0	39.7/27.0/15.4	55.0/36.4/19.2
Power input (H/M/L)		W	50/26/15	52/28/15	98/45/18	99/50/20	105/50/24	105/50/23
Sound power level		(H/M/L) dB(A)	59/52/43	59/52/43	65/57/45	65/56/46	66/59/49	65/59/49
Fan motor	Type	Low noise DC fan motor						
	Quantity		1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		2	2	3	3	3	3
Coil	Row		3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	1240x495x211	1240x495x211	1360x495x211	1360x495x211	1360x495x211	1360x495x211
	Packing size (WxHxD)	mm	1345x595x300	1345x595x300	1465x595x300	1465x595x300	1465x595x300	1465x595x300
	Net weight	kg	25.5	26.5	28.5	29.5	32.5	34.5
	Gross weight	kg	32.5	33.5	36.0	37.0	41.0	42.5
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7 °C , leaving water 12 °C , Entering air temperature 27 °C DB/19 °C WB.
Heating conditions: Entering water 45 °C , leaving water 40 °C , Entering air temperature 20 °C DB/15 °C WB.
3. Noise is tested in a reverberation chamber.

2- Pipe 2nd Generation Ceiling&Floor

Model			MKH2-V150-R3	MKH2-V150-R4	MKH2-V250-R3	MKH2-V250-R4	MKH2-V350-R3	MKH2-V350-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)		m³/h	255/170/150	255/210/150	400/315/190	425/300/190	595/470/340	595/450/310
		CFM	150/100/88	150/124/88	235/185/112	250/176/112	350/276/200	350/265/182
External static pressure		Pa	0					
Cooling	Capacity (H/M/L)	kW	1.50/1.06/0.92	1.95/1.66/1.21	2.35/1.94/1.19	2.85/2.13/1.41	3.50/2.89/2.22	3.90/3.20/2.43
	Water flow rate(H/M/L)	m³/h	0.26/0.18/0.16	0.33/0.28/0.21	0.40/0.34/0.21	0.49/0.37/0.24	0.60/0.50/0.38	0.67/0.55/0.42
	Water pressure drop(H/M/L)	kPa	13.9/8.21/6.16	27.2/20.88/12.2	13.3/9.98/4.59	26/15.06/7.41	34.1/24.63/15.39	37.4/25.91/15.37
Heating	Capacity (H/M/L)	kW	1.57/1.07/0.92	2.05/1.75/1.25	2.60/2.11/1.34	2.95/2.15/1.42	3.80/3.10/2.35	4.00/3.22/2.50
	Water flow rate(H/M/L)	m³/h	0.27/0.19/0.16	0.35/0.30/0.22	0.45/0.37/0.23	0.51/0.37/0.24	0.65/0.53/0.40	0.70/0.56/0.43
	Water pressure drop(H/M/L)	kPa	15.1/7.63/5.84	25.3/19.65/10.25	14.3/10.33/4.5	24.4/13.65/6.64	35.1/24.41/14.82	36.5/25.34/14.22
Power input (H/M/L)		W	15/9/8	20/14/9	17/12/7	20/11/8	26/17/10	29/17/11
Sound power level		(H/M/L) dB(A)	47/36/34	52/46/38	43/37/29	46/37/29	52/44/36	52/45/36
Fan motor	Type	Low noise DC fan motor						
	Quantity		1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		1	1	2	2	2	2
Coil	Row		3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	790x495x200	790x495x200	1020x495x200	1020x495x200	1240x495x200	1240x495x200
	Packing size (WxHxD)	mm	895x595x300	895x595x300	1125x595x300	1125x595x300	1345x595x300	1345x595x300
	Net weight	kg	18.0	18.5	21.5	22.0	25.5	26.5
	Gross weight	kg	23.5	24.0	27.5	28.0	32.5	33.5
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Model			MKH2-V500-R3	MKH2-V500-R4	MKH2-V700-R3	MKH2-V700-R4	MKH2-V800-R3	MKH2-V800-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)		m³/h	790/580/410	800/600/420	1190/855/505	1190/875/530	1360/1015/685	1300/980/680
		CFM	488/359/253	471/353/247	700/503/297	700/515/312	800/597/403	765/576/400
External static pressure		Pa	0					
Cooling	Capacity (H/M/L)	kW	4.30/3.48/2.71	4.85/3.92/2.93	5.60/4.47/3.14	6.35/5.19/3.62	7.35/6.12/4.57	8.25/6.65/4.84
	Water flow rate(H/M/L)	m³/h	0.74/0.60/0.47	0.83/0.67/0.51	0.96/0.77/0.54	1.09/0.90/0.63	1.27/1.05/0.79	1.43/1.14/0.83
	Water pressure drop(H/M/L)	kPa	54.2/36.22/22.78	54.3/36.81/21.77	50.7/33.38/17.73	32.8/21.75/11.43	44.1/33.7/19.41	71.4/46.17/25.39
Heating	Capacity (H/M/L)	kW	4.70/3.70/2.81	5.25/4.09/3.04	6.00/4.77/3.36	7.05/5.61/3.83	8.05/6.46/4.71	8.70/6.81/4.85
	Water flow rate(H/M/L)	m³/h	0.81/0.64/0.48	0.91/0.71/0.53	1.04/0.83/0.59	1.22/0.98/0.67	1.39/1.12/0.82	1.51/1.18/0.83
	Water pressure drop(H/M/L)	kPa	54.3/36.87/22.32	53.4/36.54/20.47	55.5/37.66/19.27	37.6/25.47/12.5	46.9/31.9/18.16	62.6/41.06/21.68
Power input (H/M/L)		W	50/25/14	52/28/15	96/44/17	92/46/19	113/53/22	102/49/22
Sound power level		(H/M/L) dB(A)	59/51/43	59/51/43	64/56/45	62/56/46	63/58/49	63/57/47
Fan motor	Type	Low noise DC fan motor						
	Quantity		1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades						
	Quantity		2	2	3	3	3	3
Coil	Row		3	4	3	4	3	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	1240x495x200	1240x495x200	1360x495x200	1360x495x200	1360x591x200	1360x591x200
	Packing size (WxHxD)	mm	1345x595x300	1345x595x300	1465x595x300	1465x595x300	1465x695x300	1465x695x300
	Net weight	kg	25.5	26.5	28.5	29.5	32.5	34.5
	Gross weight	kg	32.5	33.5	36.0	37.0	41.0	42.5
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 45°C, leaving water 40°C, Entering air temperature 20°C DB/15°C WB.
3. Noise is tested in a reverberation chamber.

2- Pipe 2nd Generation Ceiling&Floor

Model		MKH3-V150-R3	MKH3-V150-R4	MKH3-V250-R3	MKH3-V250-R4	MKH3-V350-R3	MKH3-V350-R4
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m³/h	255/170/150	255/210/150	400/315/190	425/300/190	595/470/340	595/450/310
	CFM	150/100/88	150/124/88	235/185/112	250/176/112	350/276/200	350/265/182
External static pressure		Pa	12				
Cooling	Capacity (H/M/L)	kW	1.50/1.06/0.92	1.95/1.66/1.21	2.35/1.94/1.19	2.85/2.13/1.41	3.50/2.89/2.22
	Water flow rate(H/M/L)	m³/h	0.26/0.18/0.16	0.33/0.28/0.21	0.40/0.34/0.21	0.49/0.37/0.24	0.60/0.50/0.38
	Water pressure drop(H/M/L)	kPa	13.9/8.21/6.16	27.2/20.88/12.2	13.3/9.98/4.59	26/15.06/7.41	34.1/24.63/15.39
Heating	Capacity (H/M/L)	kW	1.57/1.07/0.92	2.05/1.75/1.25	2.60/2.11/1.34	2.95/2.15/1.42	3.80/3.10/2.35
	Water flow rate(H/M/L)	m³/h	0.27/0.19/0.16	0.35/0.30/0.22	0.45/0.37/0.23	0.51/0.37/0.24	0.65/0.53/0.40
	Water pressure drop(H/M/L)	kPa	15.1/7.63/5.84	25.3/19.65/10.25	14.3/10.33/4.5	24.4/13.65/6.64	35.1/24.41/14.82
Power input (H/M/L)		W	15/9/8	20/14/9	17/12/7	20/11/8	26/17/10
Sound power level (H/M/L)		dB(A)	47/36/34	52/46/38	43/37/29	46/37/29	52/44/36
Fan motor	Type	Low noise DC fan motor					
	Quantity	1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity	1	1	2	2	2	2
Coil	Row		3	4	3	4	3
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	637x455x200	637x455x200	867x455x200	867x455x200	1087x455x200
	Packing size (WxHxD)	mm	755x555x255	755x555x255	985x555x255	985x555x255	1205x555x255
	Net weight	kg	11.8	12.1	13.9	14.8	17.3
	Gross weight	kg	16.1	16.4	19.4	20.3	24.0
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Model		MKH3-V500-R3	MKH3-V500-R4	MKH3-V700-R3	MKH3-V700-R4	MKH3-V800-R3	MKH3-V800-R4
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m³/h	790/580/410	800/600/420	1190/855/505	1190/875/530	1360/1015/685	1300/980/680
	CFM	488/359/253	471/353/247	700/503/297	700/515/312	800/597/403	765/576/400
External static pressure		Pa	12				
Cooling	Capacity (H/M/L)	kW	4.30/3.48/2.71	4.85/3.92/2.93	5.60/4.47/3.14	6.35/5.19/3.62	7.35/6.12/4.57
	Water flow rate(H/M/L)	m³/h	0.74/0.60/0.47	0.83/0.67/0.51	0.96/0.77/0.54	1.09/0.90/0.63	1.27/1.05/0.79
	Water pressure drop(H/M/L)	kPa	54.2/36.22/22.78	54.3/36.81/21.77	50.7/33.38/17.73	32.8/21.75/11.43	44.1/33.7/19.41
Heating	Capacity (H/M/L)	kW	4.70/3.70/2.81	5.25/4.09/3.04	6.00/4.77/3.36	7.05/5.61/3.83	8.05/6.46/4.71
	Water flow rate(H/M/L)	m³/h	0.81/0.64/0.48	0.91/0.71/0.53	1.04/0.83/0.59	1.22/0.98/0.67	1.39/1.12/0.82
	Water pressure drop(H/M/L)	kPa	54.3/36.87/22.32	53.4/36.54/20.47	55.5/37.66/19.27	37.6/25.47/12.5	46.9/31.9/18.16
Power input (H/M/L)		W	50/25/14	52/28/15	96/44/17	92/46/19	113/53/22
Sound power level (H/M/L)		dB(A)	59/51/43	59/51/43	64/56/45	62/56/46	63/58/49
Fan motor	Type	Low noise DC fan motor					
	Quantity	1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity	2	2	3	3	3	3
Coil	Row		3	4	3	4	3
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	1087x455x200	1087x455x200	1207x455x200	1207x455x200	1207x550x200
	Packing size (WxHxD)	mm	1205x555x255	1205x555x255	1325x555x255	1325x555x255	1325x650x255
	Net weight	kg	17.3	18.2	19.6	20.8	23.1
	Gross weight	kg	24.0	24.9	26.4	27.6	30.2
Water inlet/outlet pipe		inch	G3/4	G3/4	G3/4	G3/4	G3/4
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 45°C, leaving water 40°C, Entering air temperature 20°C DB/15°C WB.
3. Noise is tested in a reverberation chamber.
4. H3 series test with concealed tooling.

4- Pipe 2nd Generation Ceiling&Floor

Model		MKH1-V150F-R4	MKH1-V250F-R4	MKH1-V350F-R4	MKH1-V500F-R4	MKH1-V700F-R4	MKH1-V800F-R4
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m³/h	245/180/130	380/240/110	580/430/300	780/560/390	1050/770/460	1150/860/600
	CFM	144/106/76	224/141/65	341/253/176	459/329/229	618/453/271	676/506/353
External static pressure		Pa	0				
Cooling	Capacity (H/M/L)	kW	1.63/1.38/0.91	2.41/1.73/0.99	3.70/3.10/2.26	4.49/3.66/2.76	5.34/4.41/3.02
	Water flow rate(H/M/L)	m³/h	0.279/0.24/0.16	0.41/0.30/0.17	0.63/0.53/0.38	0.77/0.63/0.47	0.92/0.76/0.52
	Water pressure drop(H/M/L)	kPa	17.5/13.2/7.2	15.2/8.7/3.1	38.2/27.6/16.5	54.8/38.1/23.2	47.4/32.6/16.8
Heating	Capacity (H/M/L)	kW	1.35/1.18/0.91	2.06/1.45/1.02	2.81/2.43/1.95	3.27/2.81/2.30	4.06/3.48/2.66
	Water flow rate(H/M/L)	m³/h	0.12/0.10/0.08	0.18/0.13/0.09	0.24/0.21/0.17	0.28/0.24/0.20	0.35/0.30/0.23
	Water pressure drop(H/M/L)	kPa	10.3/8.2/5.3	25.2/15.0/8.5	54.0/41.9/28.5	67.8/53.3/37.3	116.76/91.94/56.23
Power input (H/M/L)		W	20/16/11	21/12/8	30/18/12	52/28/15	99/50/20
Sound power level (H/M/L)		dB(A)	52/46/39	46/38/30	52/45/37	59/52/43	65/56/46
Fan motor	Type	Low noise DC fan motor					
	Quantity	1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity	1	2	2	2	3	3
Coil	Row		4	4	4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	790x495x211	1020x495x211	1240x495x211	1240x495x211	1360x495x211
	Packing size (WxHxD)	mm	895x595x300	1125x595x300	1345x595x300	1345x595x300	1465x595x300
	Net weight	kg	19.0	22.5	27.0	27.0	30.0
	Gross weight	kg	24.5	28.5	34.0	34.0	37.5
Water inlet/outlet pipe		inch	Cold water: G3/4; Hot water: G1/2				
Drain pipe		mm	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5	ODΦ18.5

Model		MKH2-V150F-R4	MKH2-V250F-R4	MKH2-V350F-R4	MKH2-V500F-R4	MKH2-V700F-R4	MKH2-V800F-R4
Power supply		V/Ph/Hz	220-240/1/50				
Air flow (H/M/L)	m³/h	255/206/134	425/280/158	595/461/324	800/595/417	1190/887/564	1300/969/661
	CFM	150/121/79	250/165/93	350/271/191	471/350/245	700/522/332	765/570/389
External static pressure		Pa	0				
Cooling	Sensible Capacity(H/M/L)	kW	1.30/1.07/0.64	1.90/1.30/0.70	2.80/2.30/1.61	3.50/2.75/2.01	4.80/3.88/2.53
	Capacity (H/M/L)	kW	1.70/1.44/0.95	2.70/1.94/1.10	3.80/3.18/2.32	4.60/3.75/2.83	6.05/5.00/3.43
	Water flow rate	m³/h	0.29/0.25/0.16	0.46/0.33/0.19	0.65/0.55/0.40	0.79/0.64/0.49	1.04/0.86/0.59
	Water pressure drop	kPa	18.16/13.74/7.50	16.97/9.73/3.51	39.17/28.35/16.91	56.18/39.04/23.84	53.66/36.96/19.07
Heating	Capacity (H/M/L)	kW	1.40/1.23/0.95	2.30/1.78/1.22	2.88/2.49/2.00	3.35/2.88/2.36	4.60/3.95/3.02
	Water flow rate	m³/h	0.12/0.11/0.08	0.20/0.15/0.10	0.25/0.21/0.17	0.29/0.25/0.20	0.39/0.34/0.26
	Water pressure drop	kPa	10.74/8.50/5.49	28.16/18.45/10.08	55.37/43.00/29.20	69.57/54.65/38.21	132.32/104.19/63.73
Power input (H/M/L)		W	20/14/9	20/11/8	29/17/11	52/28/15	92/46/19
Rated current		A	0.21	0.22	0.28	0.51	0.79
Sound power level (H/M/L)		dB(A)	52/46/38	46/37/29	52/45/36	59/52/43	63/58/46
Fan motor	Type	Low noise DC fan motor					
	Quantity	1	1	1	1	1	1
Fan	Type	Centrifugal, forward-curved Blades					
	Quantity	1	2	2	2	3	3
Coil	Row		4	4	4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	790x495x200	1020x495x200	1240x495x200	1240x495x200	1360x495x200
	Packing size (WxHxD)	mm	895x595x300	1125x595x300	1345x595x300	1345x595x300	1465x595x300
	Net weight	kg	19.0	22.5	27.0	27.0	30.0
	Gross weight	kg	24.5	28.5	34.0	34.0	37.5
Water inlet/outlet pipe		inch	Cold water: G3/4; Hot water: G1/2				
Drain pipe		mm	ODΦ18.5				

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7 C , leaving water 12 C , Entering air temperature 27 C DB/19 C WB.
Heating conditions: Entering water 65 C , leaving water 55 C , Entering air temperature 20 C DB/15 C WB.
3. Noise is tested in a reverberation chamber.

Model			MKH3-V150F-R4	MKH3-V250F-R4	MKH3-V350F-R4	MKH3-V500F-R4	MKH3-V700F-R4	MKH3-V800F-R4
Power supply		V/Ph/Hz	220-240/1/50					
Air flow (H/M/L)	m³/h		255/206/134	425/280/158	595/461/324	800/595/417	1190/887/564	1300/969/661
	CFM		150/121/79	250/165/93	350/271/191	471/350/245	700/522/332	765/570/389
External static pressure		Pa	12					
Cooling	Sensible Capacity(H/M/L)	kW	1.30/1.07/0.64	1.90/1.30/0.70	2.80/2.30/1.61	3.50/2.75/2.01	4.80/3.88/2.53	5.90/4.60/3.30
	Capacity (H/M/L)	kW	1.70/1.44/0.95	2.70/1.94/1.10	3.80/3.18/2.32	4.60/3.75/2.83	6.05/5.00/3.43	7.65/6.19/4.54
	Water flow rate	m³/h	0.29/0.25/0.16	0.46/0.33/0.19	0.65/0.55/0.40	0.79/0.64/0.49	1.04/0.86/0.59	1.31/1.06/0.78
	Water pressure drop	kPa	18.16/13.74/7.50	16.97/9.73/3.51	39.17/28.35/16.91	56.18/39.04/23.84	53.66/36.96/19.07	48.07/32.56/18.32
Heating	Capacity (H/M/L)	kW	1.40/1.23/0.95	2.30/1.78/1.22	2.88/2.49/2.00	3.35/2.88/2.36	4.60/3.95/3.02	7.50/6.44/5.22
	Water flow rate	m³/h	0.12/0.11/0.08	0.20/0.15/0.10	0.25/0.21/0.17	0.29/0.25/0.20	0.39/0.34/0.26	0.64/0.55/0.45
	Water pressure drop	kPa	10.74/8.50/5.49	28.16/18.45/10.08	55.37/43.00/29.20	69.57/54.65/38.21	132.32/104.19/63.73	71.63/56.17/37.44
Power input (H/M/L)		W	20/14/9	20/11/8	29/17/11	52/28/15	92/46/19	102/49/22
Rated current		A	0.21	0.22	0.28	0.51	0.79	0.87
Sound power level		(H/M/L) dB(A)	52/46/38	46/37/29	52/45/36	59/51/43	62/56/46	63/57/47
Fan motor	Type		Low noise DC fan motor					
	Quantity		1	1	1	1	1	1
Fan	Type		Centrifugal, forward-curved Blades					
	Quantity		1	2	2	2	3	3
Coil	Row		4	4	4	4	4	4
	Max. working pressure	MPa	1.6	1.6	1.6	1.6	1.6	1.6
	Diameter	mm	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94	Φ7.94
Body	Net dimensions (WxHxD)	mm	637×455×200	867×455×200	1087×455×200	1087×455×200	1207×455×200	1207×550×200
	Packing size (WxHxD)	mm	895×595×300	1125×595×300	1345×595×300	1345×595×300	1465×595×300	1465×695×300
	Net weight	kg	12.6	15.3	18.7	18.7	21.3	24.8
	Gross weight	kg	16.9	20.8	25.4	25.4	28.1	31.9
Water inlet/outlet pipe		inch	Cold water: G3/4; Hot water: G1/2					
Drain pipe		mm	ODΦ18.5					

Notes:
1. H: High fan speed; M: Medium fan speed; L: Low fan speed.
2. Cooling conditions: Entering water 7°C, leaving water 12°C, Entering air temperature 27°C DB/19°C WB.
Heating conditions: Entering water 65°C, leaving water 55°C, Entering air temperature 20°C DB/15°C WB.
3. Noise is tested in a reverberation chamber.
4. H3 series test with concealed tooling.

Control Solutions



MDV HBT provides a variety of control schemes:
Embedded wall-mounted comes with standard remote controller. Similarly the other models have their respective series of controllers. The units can also be made to connect with BMS systems by undergoing some customizations.

- ▶ Control Devices
- ▶ Accessories
- ▶ ApplApplication of Central Control & BMS Control




FCU-KIT Functions

Functions				FCUKZ-01	FCUKZ-02	FCUKZ-03	FCUKZ-04
Control Customization	Follow me	With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in the wireless remote controller.		×	×	×	×
	Anti cold air	Prevent the unit from cold supply air when starting in winter.		●	●	●	●
	Auto-restart	The unit restarts automatically with the previous settings after power failure		●	●	●	●
	Forced fan running	After reaching the set temperature, the valve body closes and the fan operates according to the setting.		√	√	○	○
	Heat	Only electric auxiliary heating.		√	√	○	○
	Temperature compensation	Heating mode: $T2=T1+\Delta T$; Cooling mode: $T2=T1-\Delta T$ T2: Indoor Temperature, T1: Setting Temperature, ΔT : Temperature Compensation		√	√	○	○
	XYE Port	Communicate with central controllers or BMS.		●	●	●	●
	PQE Port	Communicate with Modbus.		○	○	●	●
	CCM18/CCM08/ CCM15/BMS/IMM	Central controllers and BMS.		●	●	●	●
	0-10V output control	By outputting a 0-10 V level, the opening of the valve body is controlled to meet different energy requirements.		×	×	×	×
	0-10V input control	By inputting a 0- 10 V level to PCB, the fan motor speed is controlled to meet different energy requirements.		×	×	×	×
	Display board	-		●	●	×	×






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

Control Devices



Wireless Remote Controllers

Model	Appearance	Function Descriptions	Applicable FCUs
R05/BGE		<ul style="list-style-type: none"> ● LCD display screen ● Mode control ● Fan speeds control ● Time setting / Temp. setting / Swing setting 	4-way Cassette (standard) 1-way Cassette (standard)
R51/E			Compact 4-way cassette (standard) Wall-mounted (standard)
RM12F		<ul style="list-style-type: none"> ● Display panel (Digital Tube) off 	Wall-mounted (New)
		<ul style="list-style-type: none"> ● Individual louver control 	4-way Cassette(New)

Wired Controllers

Model	Appearance	Function Descriptions	Applicable FCUs
KJR-18B/E		<ul style="list-style-type: none"> ● Mechanical thermostat ● Mode control ● Fan speeds control ● Temp. setting 	AC Ceiling& Floor and Duct without electric heater (optional)
KJR-29B		<ul style="list-style-type: none"> ● Receiving remote signal ● Mode control ● Fan speeds control ● Temp. setting 	AC Cassette / Wall-mounted (optional) DC Cassette / Wall-mounted (optional)
KJR-75A/BK		<ul style="list-style-type: none"> ● LED display screen ● Mode control ● Seven speed fan control ● Temp. setting 	DC 2nd generation Ceiling&Floor(optional) DC one-way cassette (optional)
KJRP-86I/MFK-E		<ul style="list-style-type: none"> ● LCD display screen ● Mode control ● Fan speeds control ● Timer / Temp. setting ● ECO setting/reminder 	AC Ceiling& Floor and AC&DC Duct without electric heater (optional)
KJRP-86A/BMFNKD-E		<ul style="list-style-type: none"> ● LCD display screen ● Mode/Electric heater control ● Fan speeds control ● Timer / Temp. setting ● ECO setting/reminder ● Compatible with Modbus 	AC Ceiling& Floor and AC&DC Duct (optional)

Centralized Controllers

Model	Appearance	Function Descriptions	Applicable FCUs
CCM09		<ul style="list-style-type: none"> ● Weekly schedule function ● Large LCD display screen ● Max. of 64 FCUs can be controlled by a CCM09 ● Mode control / fan speed control ● Time setting / temp. setting / swing setting 	All FCUs (AC 1-way cassette FCUs need adding NIM01 module, non-PCB FCUs need adding PC board control kit)
CCM30		<ul style="list-style-type: none"> ● Touch-style keys ● Large LCD display screen ● Max. of 64 FCUs can be controlled by a CCM30 ● Mode control / fan speed control ● Time setting / temp. setting / swing setting 	

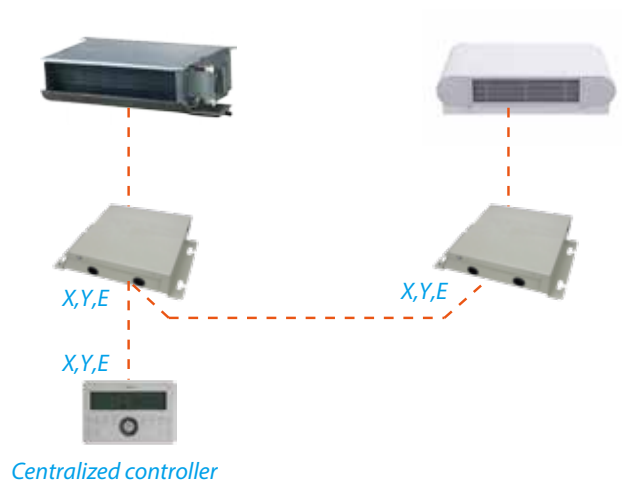
Accessories

PC Board Control Kit for FCU

- Available for all non-PCB FCUs.
- Flexibility installation: can be attached to the unit, mounted on a wall or hung under a ceiling.
- External installation making maintenance more convenient.
- Functions: three fan speeds control, Water pump control, Long-distance ON/OFF control, ALARM function, electric heater control.
- Operating status can be displayed by wired controller lamp indicator.
- Centralized control function.
- BMS control function through Modbus protocol.



Centralized control



Note: The ceiling&floor of AC and duct series of AC and DC need PCB kit to connect Centralized controller.

Model			CE-FCUKZ-01	CE-FCUKZ-02	CE-FCUKZ-03	CE-FCUKZ-04
Applicable appliance			2-pipe FCUs	4-pipe FCUs	4-pipe FCUs	4-pipe FCUs
Power supply		V-Ph-Hz	220~240-1-50/60		220~240-1-50/60	
Operation range	Room temp.	°C	17-30		17-30	
	Inlet water temp.	°C	3-75		3-75	
Temp. controlling precision		°C	±1		±1	
Net dimension	WxHxD	mm	310x76x290		296x66x212	
Packing size	WxHxD	mm	384x174x359		410x115x262	
Net weight		kg	2.5		1.4	
Gross weight		kg	4.6		2.5	

Valve kit

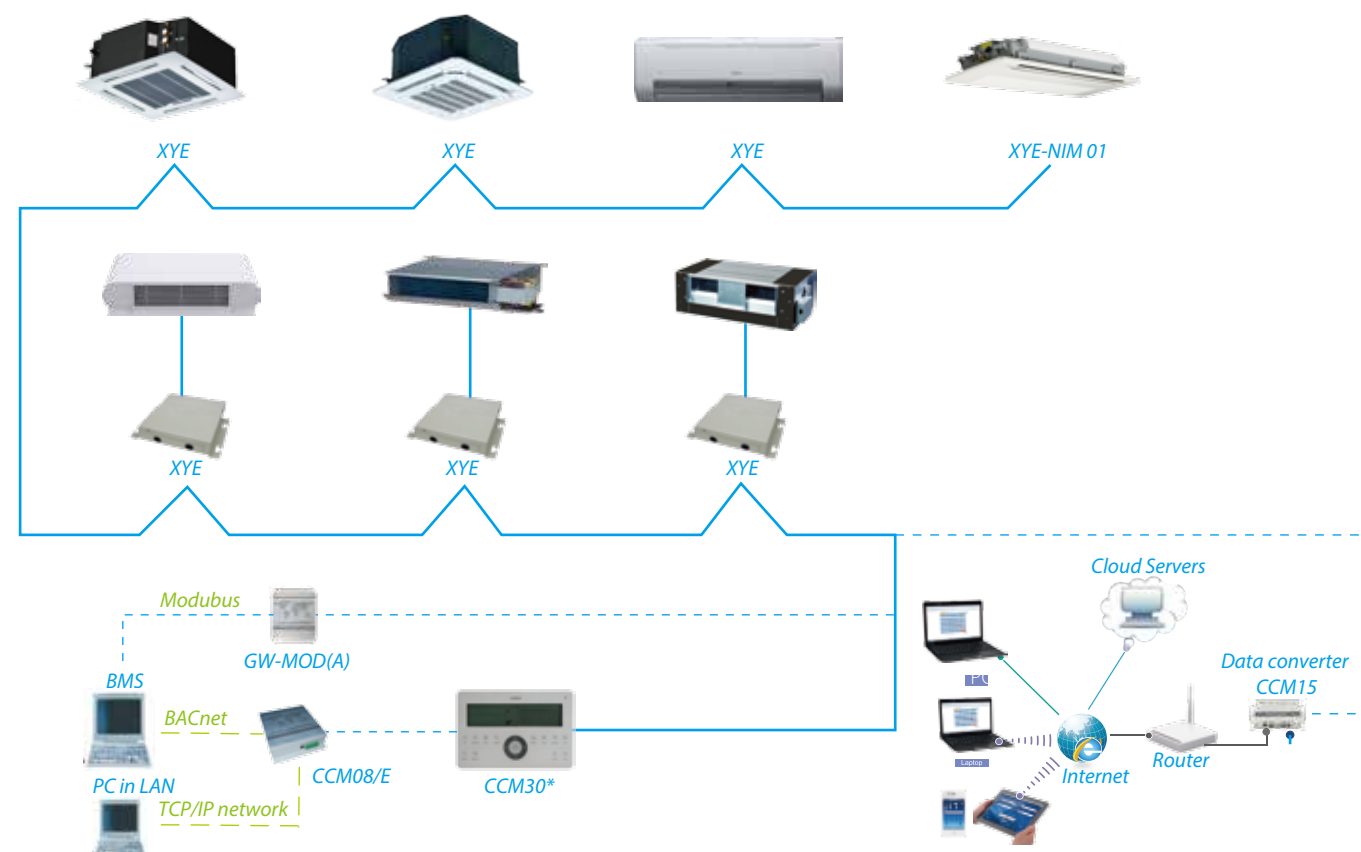
DN(mm)	Inner Screw Thread	Applicable Appliance
15	1/2"	For 4-pipe cassette and ceiling&floor (for cold water),
20	3/4"	For 2-pipe FCU,4-pipe duct, 4-pipe cassette and ceiling&floor (for cold water).



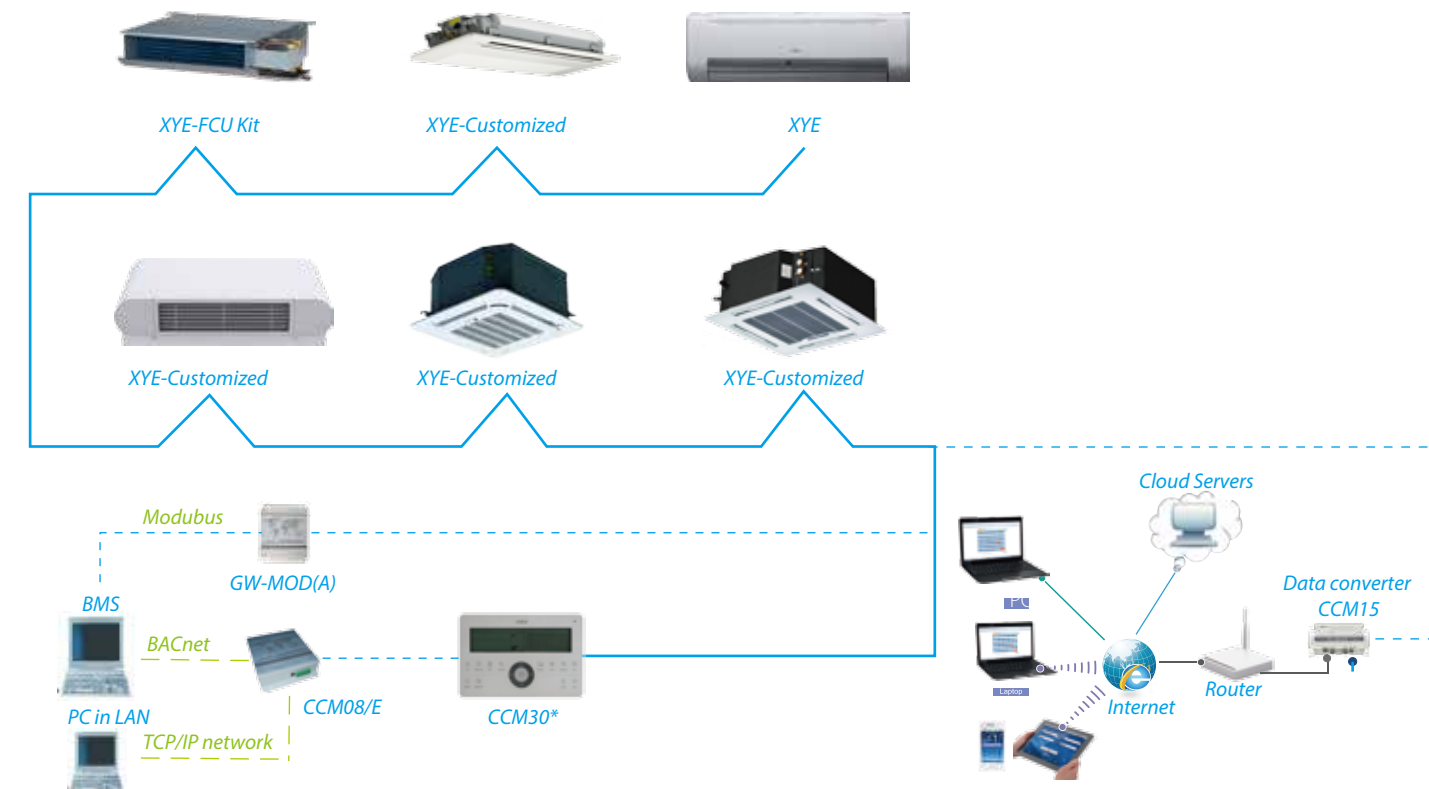
Note:
The valve kit includes valve, actuator and connecting pipe. For different model of units, the models of valve kit are difference.

Application of Central Control & BMS Control

AC Series



DC Series



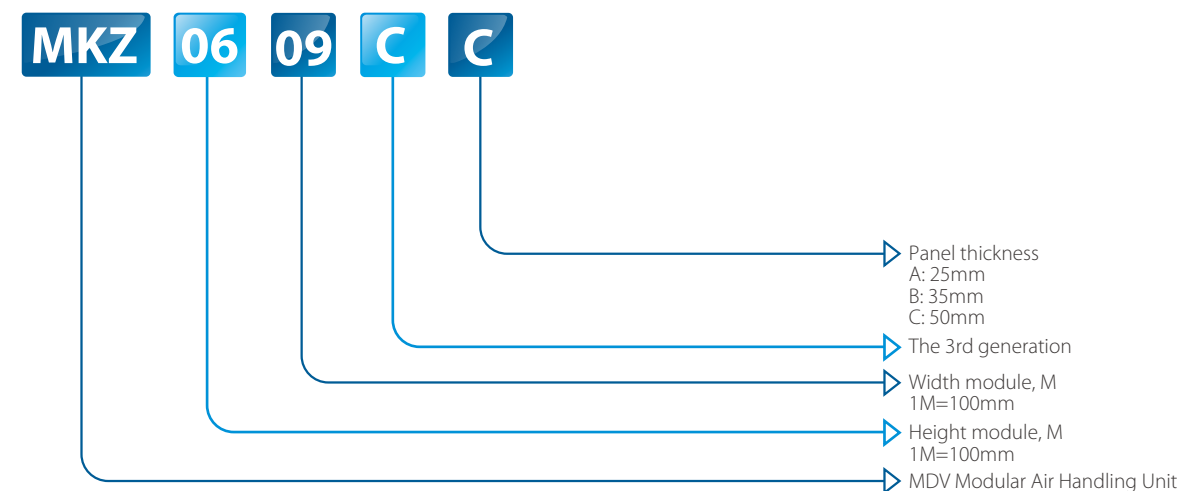
*Note: When connecting to BMS through the BACnet protocol gateway, a customized version of CCM30 is required.



Modular Air Handling Unit

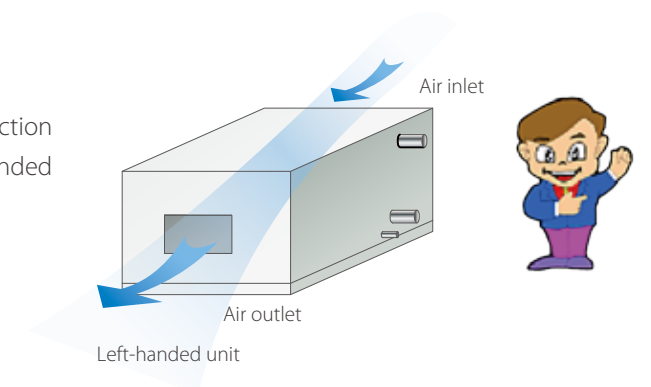
MAHUs are modular so that they have the flexibility to add components as required. The 3rd generation MDV MAHU adapts unitary structure design, more outstanding cold-bridge free performance, lower air leakage and more elegant appearance. It realizes a variety of functions: cooling, heating, humidification, dehumidification, air purification, noise elimination, and so on. The air flow rate is available from 1,500m³/h to 200,000m³/h. Total pressure (TP) exceeds 2000Pa to adapt to different kinds of applications, such as office buildings, shopping malls, exhibition halls, airports, railway stations, hotels, chemical fibres, electronics industries, textile mills, tobaccos, hospitals, printers, automobile factories and any other central air-conditioning systems.

Nomenclature



Orientation

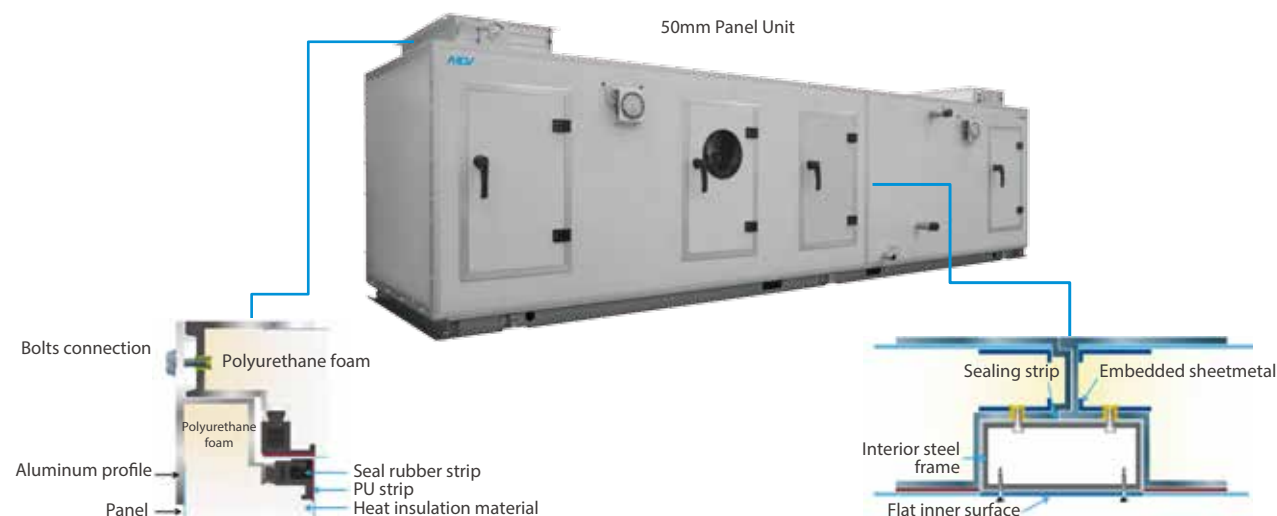
Unit handling orientation is determined by location of pipe connection while facing unit in the direction of air flow. The unit below is left-handed connection unit, otherwise is the right-handed connection unit.



Features

Reliable quality

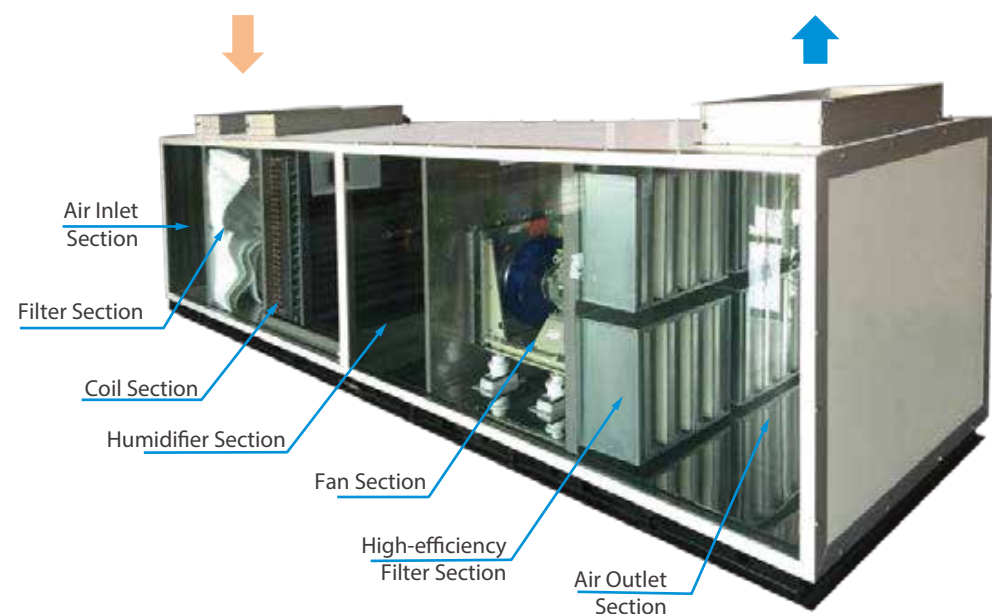
Patented "Labyrinth" panel is integrated male and female aluminum profile. Different panels of the unit casing are mounted and locked by the labyrinth profile, then fastened with bolts and nuts by embedded sheet metal inside the aluminum profile, and interior steel frame are used on the panel connection to enhance the strength. Square steels would be mounted inside the units to enhance strength for large airflow casing.



Modular design

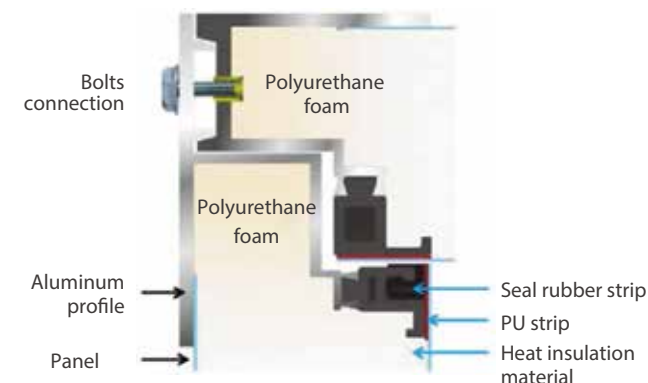
The MAHUs adopt module design usually including mixing section, primary efficiency filter section, medium efficiency filter section, high efficiency filter section, cooling coil section, heating coil section, humidifier section, sound attenuator section, service section, heat recovery section, fan section and so on. Function sections can be combined freely. Different function sections can be selected according to the specific applications.

The MAHUs can be shipped in divided sections. Each section is fully completed at manufacturer's work place, and only connection of sections can be done on project site. Oversized units cannot be fitted in normal container shipment or cannot be delivered through access at site can be considered shipment in complete knock down form, but reassembling works must be done by engineers of the manufacturer.



Cold-bridge-free structure

Patented "Labyrinth" panel is integrated male and female aluminum profile. Different panels of the unit casing are mounted and locked by the labyrinth profile forming labyrinth sealing structure to prevent air-leakage. And well-designed insulation is appropriately applied on the panel to break the cold-bridge. The access door leaf is integrated by highly pressurised polyurethane foam without secondary outer frame mounted and a seal injected by machine without broken on the inner perimeter of the door to prevent air leakage and forming cold-bridge. Thus, the certified thermal bridging rating of AHRI is CB1 and air leakage rating reaches CL1 under 2500Pa test condition.



Sandwich panel design

The MAHUs adopt unitary structure design and the insert fastening bolts are covered by haps which are in accordance with the color of the outer skin, and clear, smooth appearance make the outlook attractive.

Ease of Maintenance

MDV MAHUs are designed to provide easy access to interior components for routine maintenance and service. The easy-to-move panels and access doors of the units provide complete access to the unit interior and components.



Wide usage

MDV MAHUs can be widely used in chemical fibres, electronics industries, textile mills, tobacco industries, hospitals, printers, automobile factories and any other central air-conditioning systems, especially those which have special requirements of environment space.



Selection software

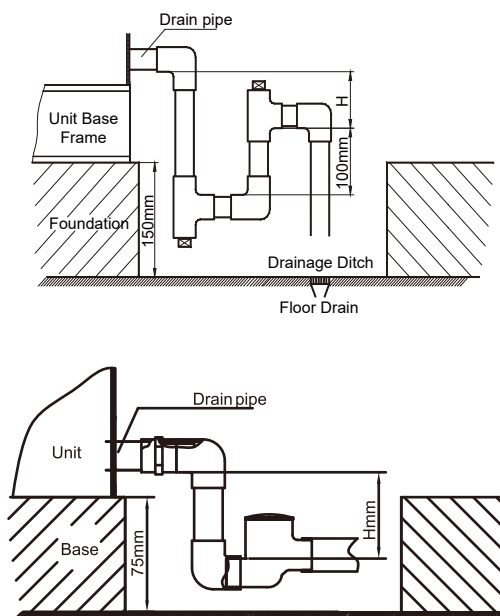
A user-friendly software selection program has been provided to help the customer easily select the units as per their project requirements.

Mechanical specifications

Base frame

Unit sections are mounted on galvanized steel or channel steel base frame for ease of shipment and handling. The frames provide holes for section connection, and holes for fork-lifting truck. There is a guard rail cross the bottom in the holes to prevent unit damage by trucks.

The base frame can be used in lieu of concrete plinths or other additional bases that are used on site. However, for high static pressure application, additional concrete plinths or other additional bases are required at site to raise the MAHUs for drain pan's U-trap.



Double skin panel

The outer skin is color-coated steel sheet that is resistant to scratch and nicks and shall allow for easy cleaning. The inner skin is galvanized steel sheet.

The panels are double skin type with injected polyurethane foam insulation. The panel is moisture proof and anti-corrosive. The insulation material is totally enclosed in the panel to avoid any possibility of insulation being exposed to air stream.

The panel is sturdy and, in its standard design, unit sections of the same width can be stacked on the top of one another, without additional reinforcement.

Drain pan

Standard drain pan is steel and painted, fully insulated on the outside with 10mm foam insulation. Stainless steel drain pan is optional. Connecting pipe is located at bottom of drain pan to allow complete drainage. The drain pipe exits from the same side as coil header.

Access door

The access doors are equipped with locking handle which is controllable internally and externally. The access door leaf is integrated by highly pressure polyurethane foam without secondary outer frame mounted and a seal injected by machine without broken on the inner perimeter of the door to prevent air leakage and form cold-bridge.



Spring Isolator

The fan motors are mounted on a rigid base frame which is supported by effective spring shock absorber. Shipping brackets are equipped at the base frame to protect fans, motors and spring shock absorber during transportation.

Fan assembly

The vibration levels of the complete fan assembly (fan wheel, motor and drives assembled as a whole system) is checked and dynamically balanced in the factory.

The main parts of fan are scroll, impeller, frame, bearing and shaft. The scroll is made of hot galvanized steel sheet. Its side plate has an outline complying with aerodynamics. The impeller is made of high grade hot galvanizing steel sheet and is designed to a special configuration according to aerodynamics to make the efficiency highest and the noise lowest. The high quality ball bearings are air-sealed, with preset lubricating oil, and have automatic alignment. The shafts are made of 40 Cr or C45 carbon steel bars. They are coated after assembly in order to provide corrosion resistance.

Fan connection is isolated from unit casing by a flexible canvas duct mounted at fan discharge outlet. Fan and motor assembly is internally isolated from the unit casing with spring isolators, furnished and installed by the unit manufacturer.

The drive assembly consists of belt pulley and motor. The belt type is oil and heat resistant, antistatic and avoiding electric discharges. Motor is mounted on a sliding base to permit adjustment of drive belt tension. The motor used is induction motor which is fully enclosed and horizontally mounted.

Unit is provided with a painted metal sheet belt guard. The belt guard is rigidly attached to the fan base support structure.

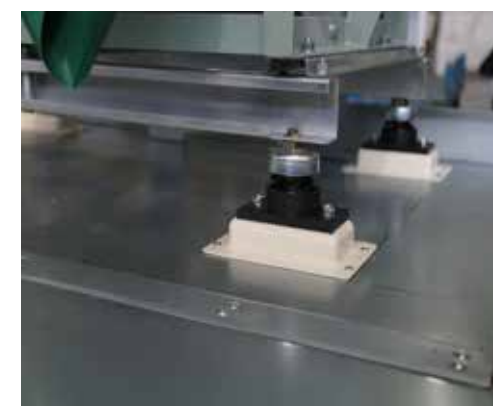
Fan assembly section is equipped with an access door with window on the drive side of the fan.



Motor

Totally enclosed fan cooled motors, with class F insulation, are mounted on slide rails with provision for V-belt tensioning. Fan and motor are mounted on a common base frame fitted with anti-vibration mountings and the fan discharge is provided with a fire retardant flexible connection to completely isolate the fan and motor assembly from the unit casing.

Fan motor is mounted on a horizontal flat plate and can't be supported by the fan or its structural members. Motor is mounted within the fan section casing on slide rails equipped with adjusting screws. So motor can be moved freely in the horizontal direction to reach the correct point then fasten bolts. Installation and maintenance are time saving.



Coil

In MDV MAHUs, there are three typical types of coils: chilled water coils, hot water coils and steam heater coils. All coils are AHRI certified and provided to meet the scheduled performance. Coils consist of copper-tubes and aluminum fins. The fins are sine-wave design with slits for better heat transfer efficiency and moisture carry-over limit performance.

All coils are installed with space between each component for cleaning and mounting of controls. All cooling coils are mounted over a drain pan. The drain pan extends beyond the leaving side of the coil to help recover condensate.

Coil connections always extend through out of the unit cabinet, allowing for the easy connection of valves and piping. Vents are located outside the cabinet.

The coil can be customized with DX coil and refrigerant is R410A.



Humidifier

Usually, there is no humidifier installed in the MAHUs for comfort air conditioning systems; but the outdoor climate is very cold in winters, therefore in case a humidifier is not used, the winter indoor relative humidity may be too low. Humidifiers are necessary for health care facilities and processing systems in pharmaceutical, semiconductor, textile, communication centers, and computer rooms.

In MDV MAHUs, wet film vaporization, dry steam, electrode boiler, and water spray humidifiers are widely used. Wet film vaporization humidifier is a type of enthalpy humidifier or evaporation gasification humidifier. Through the principle of exchange of heat and moisture, the air is humidified and cooled. The medium is inorganic material which has long-life, high reliability, good heat conduction and bacterial resistance. Dry steam or electrode boiler humidifiers are widely used in where a warm air supply and humidity control are needed in winter.



Wet film vaporization humidifier



Dry steam humidifier



Electrode boiler humidifier

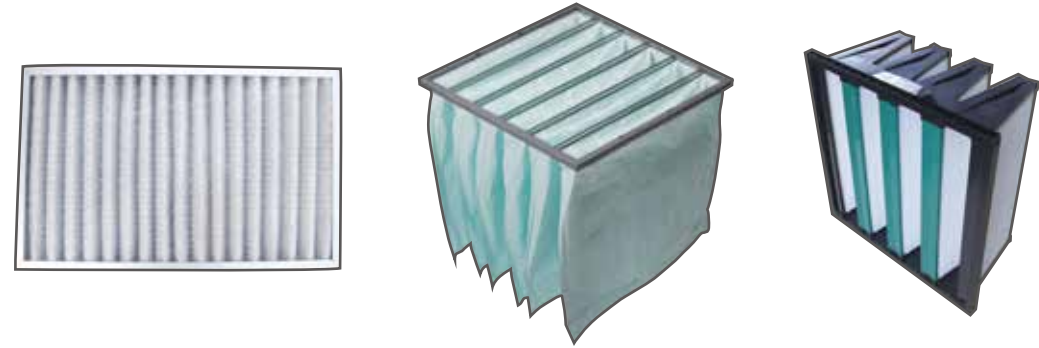


Water spray humidifier

Filter

Air filtration is an important aspect for delivering good indoor air quality. In MAHUs, earlier low-efficiency filters of the panel type are giving way to the medium and high efficiency bag type and cartridge type of filters.

Filter section consists of galvanized steel filter frame structure and an access door for filter maintenance. Low efficiency plate filter is designed as standard. Bag, cartridge and other high efficiency filters are optional and can be customised. The structure of filters are stable and firm. The filters have high strength and intensity. It is easy to change the filters. Filters can be mounted from front side in the unit. The filters efficiency is up to 95%.



Filter efficiency table

	Pre Filter ≥ 5µm 80% > Efficiency ≥ 20%					Secondary Filter ≥ 1µm 70% > Efficiency ≥ 20%					High Efficiency Filter ≥ 1µm 99% > Efficiency ≥ 70%			Secondary HEPA Filter ≥ 0.5µm 99.9% > Efficiency ≥ 95%				HEPA Filter ≥ 0.5µm Efficiency ≥ 99.99%			
China - GB/T14295 U.S. - ASHRAE	C1	C2 ~ C4	L5	L6	L7	L8	M9	M10	M11	M12	M13	M14	H12 ~ H16				VH17	VH18	VH19	VH20	
Europe - New Standard	G1 65%	G2 80%	G3 30% ~ 90%		G4 > 90%		F5 40%		F5 60%		F7 80%	F8 90%	F9 85%	H10 95%	H11 99%	H12 99.90%	H13 99.995%		H14 99.995%	V15~V17 99.995%	
Europe - Old Standard	EU1	EU2	EU3		EU4		EU5		EU6		EU7	EU8	EU9	EU10		EU11	EU12	EU13	EU14		

Air dampers

Air dampers in MAHUs are optional. Aerodynamically designed damper blades have built in high quality bearings. Blade edges are lined with sealing strip to restrict leakage to an absolute minimum. Air damper blades are either linked to give parallel turning operation or gear set to give opposing direction. The dampers are tested to yield linear control characteristic. Mixing dampers working in pairs and can be coupled in such a way that if one is 75% open the other will be 25% open.

