

# Commercial Air Conditioners 2017



## VRF 50/60Hz V5 X Series

### Commercial Air Conditioner 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.



Midea CAC After-service Application

Midea CAC News Application



iOS Version

Android Version

iOS Version



# Midea CAC

Midea CAC is a key division of the Midea Group, a leading producer of consumer appliances and provider of heating, ventilation and air conditioning solutions. Midea CAC has continued with the tradition of innovation upon which it was founded, and emerged as a global leader in the HVAC industry. A strong drive for advancement has created a groundbreaking R&D department that has placed Midea CAC at the forefront of a competitive field. Through these independent efforts and joint cooperation with other global enterprises, Midea has supplied thousands of innovative solutions to customers worldwide.

There are three production bases: Shunde, Chongqing and Hefei.

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

MCAC Chongqing: 14 product lines focusing on Water Cooled Centrifugal/Screw/Scroll Chillers, Air Cooled Screw/Scroll Chillers, and AHU/FCU.

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



Midea Company  
Introduction



Midea CAC  
Introduction



2014-2015 >> Win FIFA World Cup Stadiums project in Brazil Beira Rio, Olympic Games Stadiums project in Brazil Rio de Janeiro and Africa games Stadiums project in Congo Brazzaville successively

2014 >> Launched the All DC Inverter V5X globally, outstanding product performance helps Midea leading VRF market

2011-2014 >> Launched the DC Inverter V4 Plus Series successively, complete product lines help Midea successfully enter the mainstream VRF market

2011-2012 >> J.V. with Carrier LA and Carrier India successively

2009 >> Launched the DC Inverter V4 globally

2008 >> Developed DC inverter technology with Toshiba

2000-2001 >> Cooperated with Toshiba and Copeland, enter VRF field

1999 >> Entered the CAC field



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## OUTDOOR UNIT LINEUP

The Midea V5 X Series is a range of high performance VRF outdoor units. With capacities ranging from 8HP to 88HP in 2HP increments, the V5 X brings high efficiency, high reliability cooling and heating to projects large and small.

The V5 X offers a variety of outstanding capabilities. Able to support piping lengths of up to 1000m and height differences of up to 110m, the V5 X rises to the challenge of today's tall buildings. Compatibility with a wide selection of indoor units provides the flexibility to produce tailored climate control solutions for a wide range of interior spaces.



### Single Unit

8/10/12HP



14/16/18/20/22HP



### Multi Combination

24-44HP



46-66HP



68-88HP



# INDOOR UNIT LINEUP

kW		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		6k	7k	9k	12k	15k	19k	24k	27k	30k	34k	38k	42k	48k	55k	68k	85k	96k	136k	154k	191k			
Cassette	One-way cassette	AC Series																						
	Two-way cassette		AC Series																					
	Four-way cassette			AC Series																				
	Compact four-way cassette		AC Series																					
Duct	Low static pressure	AC Series																						
	Medium static pressure	AC Series																						
		DC Series																						
	High static pressure							AC Series							DC Series									
	Fresh air processing unit													AC Series						DC Series				
Wall mounted		AC Series																						
Ceiling & floor				AC Series																				
Floor standing			AC Series																					
Console			DC Series																					

AC Series  
DC Series





# » OUTDOOR UNITS

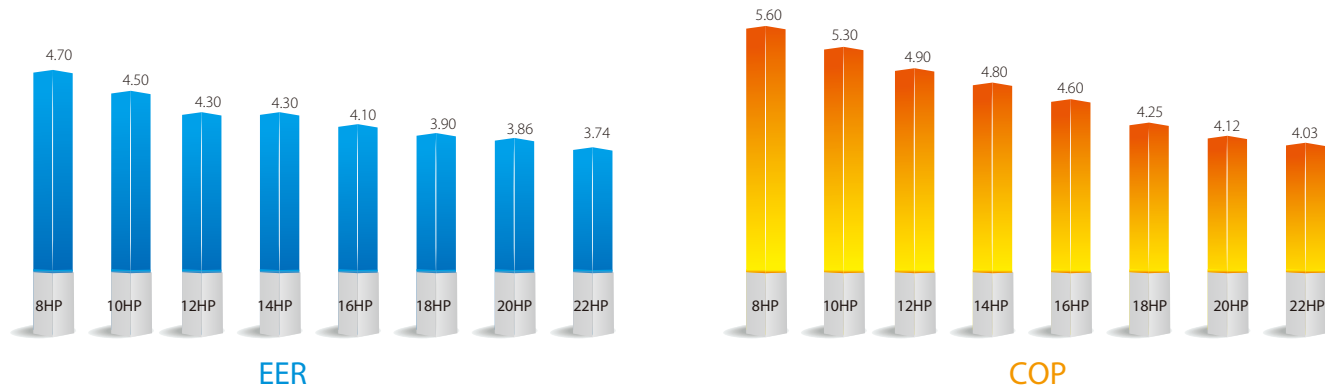
## V5 X SERIES VRF

- ❖ High Efficiency
- ❖ Wide Application Range
- ❖ High Reliability
- ❖ Enhanced Comfort
- ❖ Easy Installation and Service
- ❖ Anti-corrosion Protection

# High Efficiency

## High EER and COP >>

DC compressors and fan motors together with a high-efficiency heat exchanger combine to give the V5 X Series top-class energy efficiency in cooling and heating.



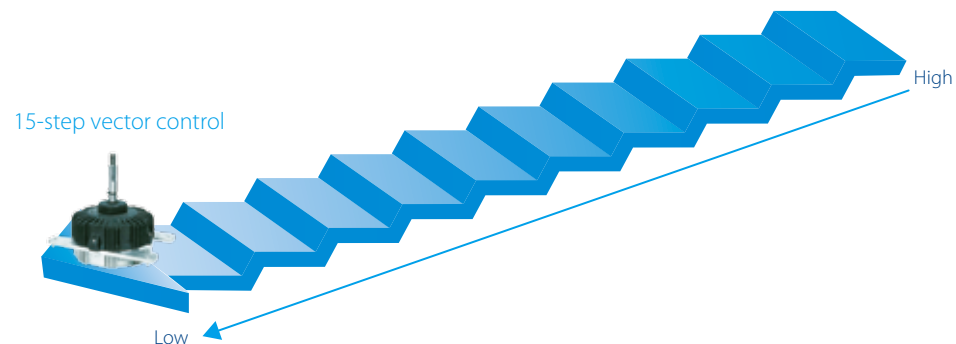
## All DC Inverter Compressors >>

At the heart of the V5 X Series outdoor unit lies a world-leading DC inverter scroll compressor. The compressor's innovative design and numerous high performance features reduce power consumption by 25%.



## All DC Fan Motors >>

Fan speed is controlled according to the system pressure and system load, minimizing energy consumption.

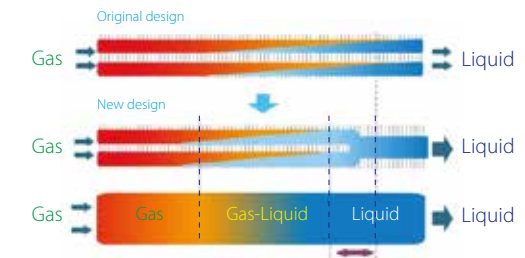
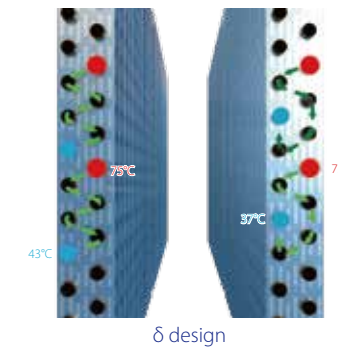


## High Efficiency Heat Exchanger >>

Newly designed fins enlarge the heat exchange area and decrease air resistance, enhance heat exchange performance and save more energy.

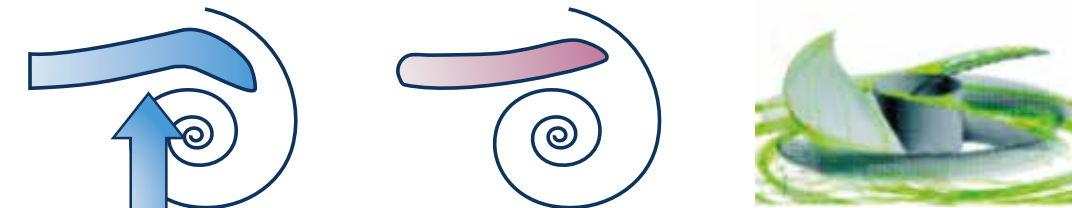
Hydrophilic fins and internally threaded copper pipes optimize heat exchange efficiency.

$\delta$  design increases the degree of liquefaction in the condenser and improves heat-exchange efficiency.



## Newly Designed Fan >>

A new blade with sharp edges and a slight curve increases the airflow rate and lowers vibration and airflow resistance.

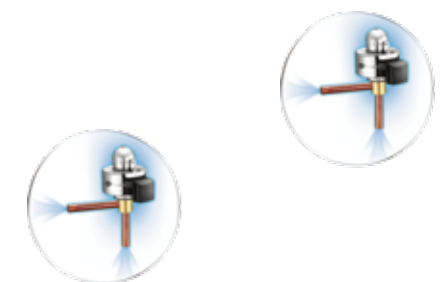


## Precise Control >>

Multiple solenoid valves ensure precise temperature control, stable and efficient operation, and improved comfort.

## Dual EXVs Control >>

Dual EXVs in one system, each EXV part achieves 480 Pulse rate to precisely adjust refrigerant flow.





# Wide Application Range

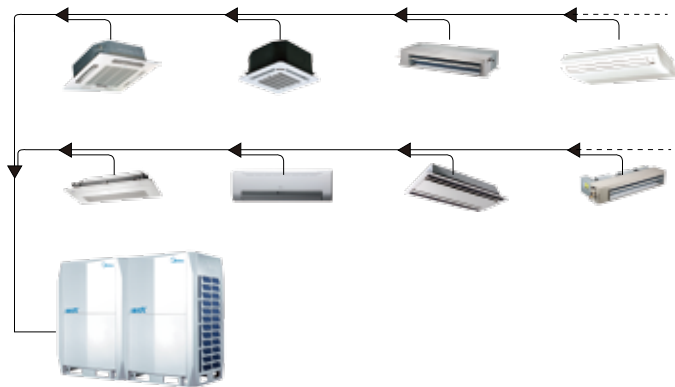
## Wide Capacity Range >>

The V5 X series has an extensive range of capacities, from 8HP to 88HP, meeting all customer requirements from small to large buildings.



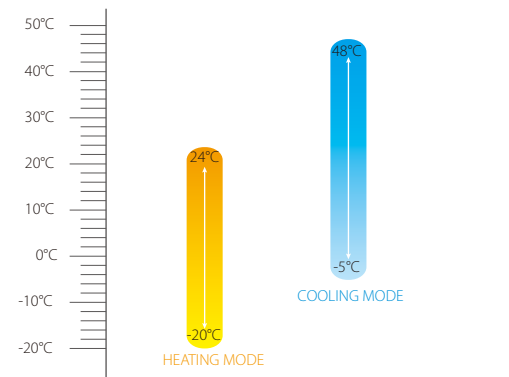
## Wide Range of Indoor Units >>

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



## Wide Operation Range >>

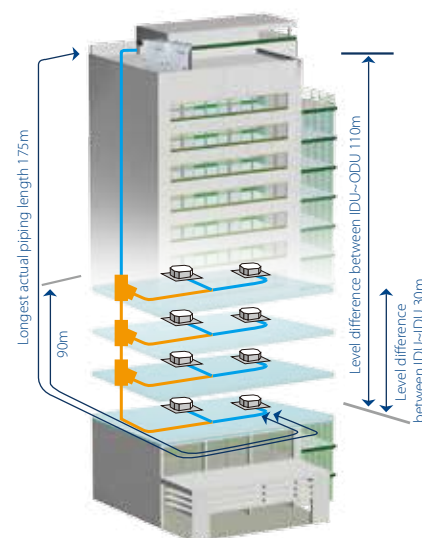
V5X Series operates stably under extreme conditions, ranging from minus 20°C to 48°C.



## Long Piping Capability >>

Piping length	Capability
Total piping length	1000m
Longest length - actual (equivalent)	175m (200m)
Longest length after first branch	90m*
Largest height difference between indoor and outdoor units - ODU up (down)	90m (110m)
Largest height difference between indoor units	30m

\*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 Midea dealer for further information.



# 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.



## Backup >>

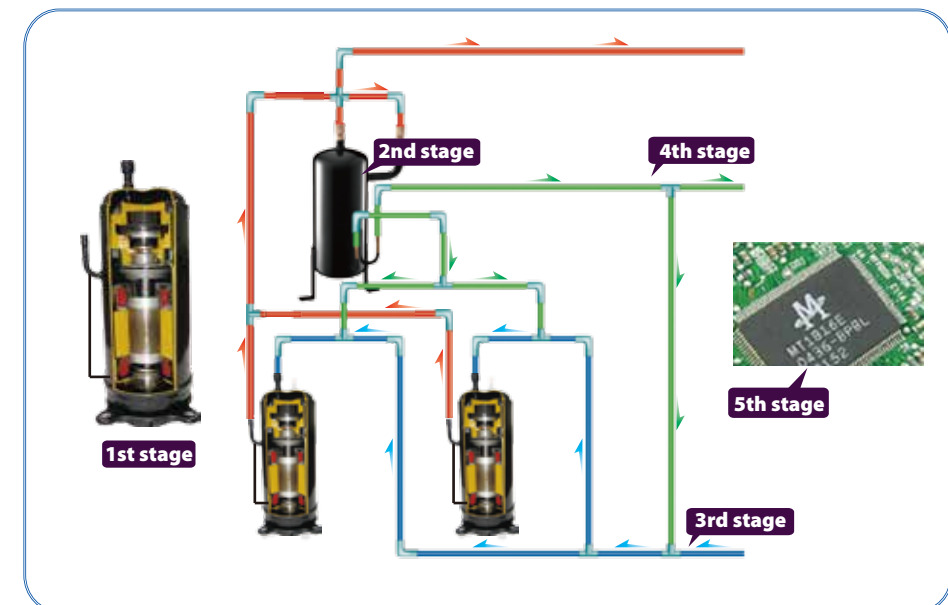
In a multi-unit system, if one module fails, the other modules provide backup so that the system can continue operating.



## Precise Oil Control Technology >>

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

- The 1st stage:** Compressor internal oil separation.
- The 2nd stage:** 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.
- The 3rd stage:** Oil balance pipes between compressors ensure even oil distribution to keep compressors running normally.
- The 4th stage:** Oil balance pipes among modules ensure even oil distribution among modules.
- The 5th stage:** Auto oil return program monitors the running time and system status to ensure reliable oil return.



## Enhanced Comfort

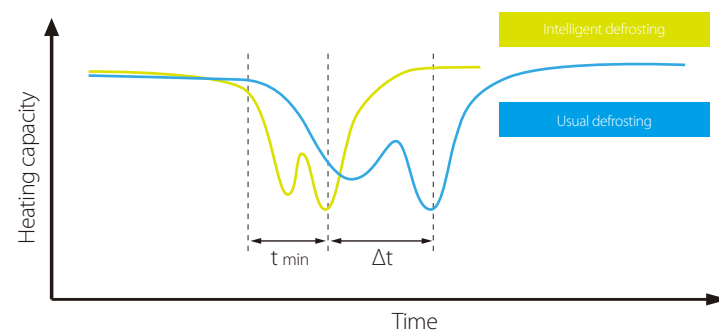
### Night Silent Mode >>

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



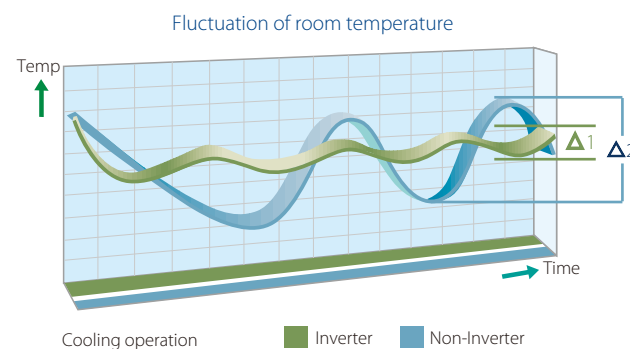
### Intelligent Defrosting Technology >>

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.



### Rapid Cooling or Heating >>

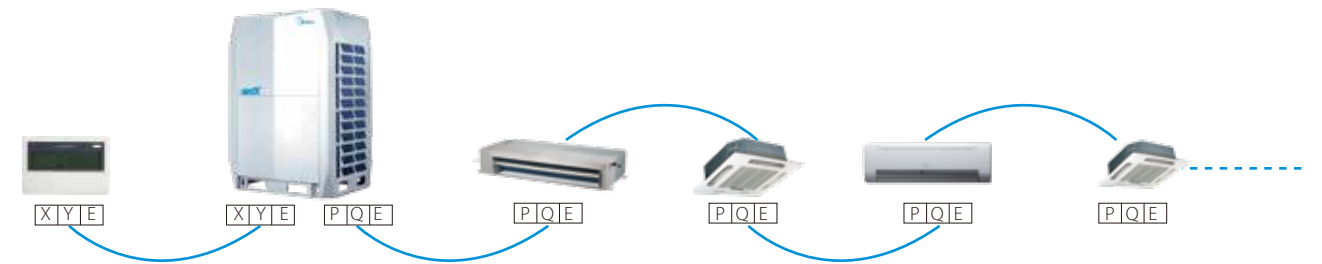
The DC inverter compressor reaches full capacity rapidly, providing quicker cooling or heating with lower levels of temperature fluctuation during the cooling/heating operation.



## Easy Installation and Service

### Simple Communication Wiring >>

Indoor centralized controller can be connected to either the indoor or the outdoor units. A single set of wiring can be used for system and network communication, making installation quicker and easier.



### Auto Addressing >>

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



### Rotatable Electric Control Box >>

The newly designed rotating control box can be rotated up to 150 degrees to provide access to the pipeline system for inspection and maintenance without the need to remove the control box.



### Easy Maintenance >>

Special features that increase ease of maintenance include a control box inspection window for viewing the system status, a self-diagnosis function that speeds fault analysis, and the positioning of the compressor adjacent to the casing, which simplifies inspection and enables valve or compressor parts to be replaced easily.





# 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 steel sheets, grills, coil fins, electric control box case and screws/bolts 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.

## Motor >>

Standard products:  
72h of neutral salt mist

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



## Painted Sheet Metal >>

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

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



## Screws / Bolts / Gaskets >>

Standard products:  
300h of neutral salt mist

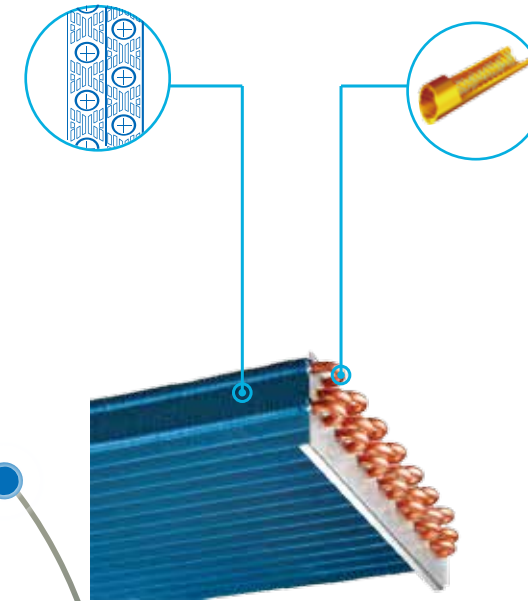
Heavy anti-corrosion products:  
720h of neutral salt mist



## Heat Exchanger Aluminum Foil >>

Standard products:  
72h of neutral salt mist

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



## Copper >>

Standard products:  
24h of neutral salt mist

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

## Electric Control Box Case >>

Standard products:  
96h of neutral salt mist

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



## Compressor / Motor Bolts >>

Standard products:  
72h of neutral salt mist

Heavy anti-corrosion products:  
168h of neutral salt mist



# Specifications

380-415V 50(60)Hz / 220V 60Hz



Capacity	HP	8	10	12	14	
Model	380-415V	MV5-X252W/V2GN1	MV5-X280W/V2GN1	MV5-X335W/V2GN1	MV5-X400W/V2GN1	
Model	220V	MV5-X252W/V2DN1	MV5-X280W/V2DN1	MV5-X335W/V2DN1	MV5-X400W/V2DN1	
Power supply		3 phase, 380-415V, 50/60Hz or 3 phase, 220V, 60Hz				
Cooling <sup>1</sup>	Capacity	kW	25.2	28.0	33.5	40.0
		kBtu/h	86.0	95.5	114.3	136.5
	Power input	kW	5.36	6.22	7.79	9.30
Heating <sup>2</sup>	Capacity	kW	27.0	31.5	37.5	45.0
		kBtu/h	92.1	107.5	128.0	153.5
	Power input	kW	4.82	5.94	7.65	9.38
Connected indoor units	Total capacity	50-130% of outdoor unit capacity				
	Maximum quantity	13	16	20	23	
Compressors	Type	DC inverter				
	Quantity	1	1	1	2	
Fan motors	Type	DC				
	Quantity	1	1	1	2	
Refrigerant	Type	R410A				
	Factory charge	kg (lbs.)	9 (20)	9 (20)	11 (24)	13 (29)
Pipe connections <sup>3</sup>	Liquid pipe	mm (in.)	Φ12.7 (Φ1/2)	Φ12.7 (Φ1/2)	Φ15.9 (Φ5/8)	Φ15.9 (Φ5/8)
	Gas pipe	mm (in.)	Φ25.4 (Φ1)	Φ25.4 (Φ1)	Φ28.6 (Φ1-1/8)	Φ31.8 (Φ1-1/4)
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)			
Air flow rate	m <sup>3</sup> /h	12000	12000	12000	14000	
Sound pressure level <sup>4</sup>	dB(A)	58	59	60	62	
Net dimensions (WxHxD)	mm	990x1635x790				
	in.	39x64-3/8x31-1/8				
Packed dimensions (WxHxD)	mm	1055x1805x855				
	in.	41-1/2x71-1/16x33-5/8				
Net weight	kg (lbs.)	219 (483)	219 (483)	237 (523)	297 (655)	
Gross weight	kg (lbs.)	234 (516)	234 (516)	252 (556)	315 (695)	
Operating temperature range	°C (°F)	Cooling: -5 to 48 (23 to 118.4); Heating: -20 to 24 (-4 to 75.2)				



Capacity	HP	16	18	20	22	
Model	380-415V	MV5-X450W/V2GN1	MV5-X500W/V2GN1	MV5-X560W/V2GN1	MV5-X615W/V2GN1	
Model	220V	MV5-X450W/V2DN1	MV5-X500W/V2DN1	MV5-X560W/V2DN1	MV5-X615W/V2DN1	
Power supply		3 phase, 380-415V, 50/60Hz or 3 phase, 220V, 60Hz				
Cooling <sup>1</sup>	Capacity	kW	45.0	50.0	56.0	61.5
		kBtu/h	153.5	170.6	191.1	209.8
	Power input	kW	10.98	12.82	14.51	16.44
Heating <sup>2</sup>	Capacity	kW	50.0	56.0	63.0	69.0
		kBtu/h	170.6	191.1	214.9	235.4
	Power input	kW	10.87	13.18	15.29	17.12
Connected indoor units	Total capacity	50-130% of outdoor unit capacity				
	Maximum quantity	26	29	33	36	
Compressors	Type	DC inverter				
	Quantity	2				
Fan motors	Type	DC				
	Quantity	2				
Refrigerant	Type	R410A				
	Factory charge	kg (lbs.)	13 (29)	13 (29)	16 (35)	16 (35)
Pipe connections <sup>3</sup>	Liquid pipe	mm (in.)	Φ15.9 (Φ5/8)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)
	Gas pipe	mm (in.)	Φ31.8 (Φ1-1/4)	Φ31.8 (Φ1-1/4)	Φ31.8 (Φ1-1/4)	Φ31.8 (Φ1-1/4)
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)			
Air flow rate	m <sup>3</sup> /h	14000	16000	16000	16000	
Sound pressure level <sup>4</sup>	dB(A)	62	63	63	63	
Net dimensions (WxHxD)	mm	1340x1635x790				
	in.	52-3/4x64-3/8x31-1/8				
Packed dimensions (WxHxD)	mm	1405x1805x855				
	in.	55-3/8x71-1/16x33-5/8				
Net weight	kg (lbs.)	297 (655)	305 (673)	340 (750)	340 (750)	
Gross weight	kg (lbs.)	315 (695)	323 (712)	358 (790)	358 (790)	
Operating temperature range	°C (°F)	Cooling: -5 to 48 (23 to 118.4); Heating: -20 to 24 (-4 to 75.2)				

- Notes:
- Indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
  - Indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
  - Diameters given are those of the unit's stop valve.
  - Sound pressure level is measured at a position 1m (3.28ft) in front of the unit and 1.3m (4.3ft) above the floor in a semi-anechoic chamber.

# Specifications

380-415V 50(60)Hz / 220V 60Hz



Capacity	HP	24	26	28	30	32	34	
Model	380-415V	MV5-X670W/V2GN1	MV5-X730W/V2GN1	MV5-X780W/V2GN1	MV5-X840W/V2GN1	MV5-X895W/V2GN1	MV5-X950W/V2GN1	
Model	220V	MV5-X670W/V2DN1	MV5-X730W/V2DN1	MV5-X780W/V2DN1	MV5-X840W/V2DN1	MV5-X895W/V2DN1	MV5-X950W/V2DN1	
Power supply		3 phase, 380-415V, 50/60Hz or 3 phase, 220V, 60Hz						
Cooling <sup>1</sup>	Capacity	kW	67.0	73.0	78.0	84.0	89.5	95.0
		kBtu/h	228.6	249.0	266.1	286.6	305.3	324.1
	Power input	kW	15.58	17.20	19.04	20.73	22.67	24.23
Heating <sup>2</sup>	Capacity	kW	4.30	4.24	4.10	4.05	3.95	3.92
		kBtu/h	75.0	81.5	87.5	94.5	100.5	106.5
	Power input	kW	256.0	278.1	298.6	322.4	342.9	363.4
Connected indoor units	Total capacity	50-130% of outdoor unit capacity						
	Maximum quantity	39	43	46	50	53	56	
Compressors	Type	DC inverter						
	Quantity	2	3	3	3	3	3	
Fan motors	Type	DC						
	Quantity	2	3	3	3	3	3	
Refrigerant	Type	R410A						
	Factory charge	kg (lbs.)	11x2 (24x2)	9+13 (20+29)	9+13 (20+29)	9+16 (20+35)	9+16 (20+35)	11+16 (24+35)
Pipe connections <sup>3</sup>	Liquid pipe	mm (in.)	Φ15.9 (Φ5/8)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)
	Gas pipe	mm (in.)	Φ28.6 (Φ1-1/8)	Φ31.8 (Φ1-1/4)	Φ31.8 (Φ1-1/4)	Φ31.8 (Φ1-1/4)	Φ31.8 (Φ1-1/4)	Φ31.8 (Φ1-1/4)
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)					
Air flow rate	m <sup>3</sup> /h	24000	26000	28000	28000	28000	28000	
Sound pressure level <sup>4</sup>	dB(A)	64	65	65	65	65	65	
Net dimensions (WxHxD)	mm	(990x1635x790)x2						
	in.	(39x64-3/8x31-1/8)x2						
Packed dimensions (WxHxD)	mm	(1055x1805x855)x2						
	in.	(41-1/2x71-1/16x33-5/8)x2						
Net weight	kg (lbs.)	237x2 (523x2)	219+297 (483+655)	219+305 (483+673)	219+340 (483+750)	219+340 (483+750)	237+340 (523+750)	
Gross weight	kg (lbs.)	252x2 (556x2)	234+315 (516+695)	234+323 (516+712)	234+358 (516+790)	234+358 (516+790)	252+358 (556+790)	
Operating temperature range	°C (°F)	Cooling: -5 to 48 (23 to 118.4); Heating: -20 to 24 (-4 to 75.2)						



Capacity	HP	36	38	40	42	44	46	
Model	380-415V	MV5-X1000W/V2GN1	MV5-X1065W/V2GN1	MV5-X1115W/V2GN1	MV5-X1175W/V2GN1	MV5-X1230W/V2GN1	MV5-X1285W/V2GN1	
Model	220V	MV5-X1000W/V2DN1	MV5-X1065W/V2DN1	MV5-X1115W/V2DN1	MV5-X1175W/V2DN1	MV5-X1230W/V2DN1	MV5-X1285W/V2DN1	
Power supply		3 phase, 380-415V, 50/60Hz or 3 phase, 220V, 60Hz						
Cooling <sup>1</sup>	Capacity	kW	100.0	106.5	111.5	117.5	123.0	128.5
		kBtu/h	341.2	363.3	380.4	400.9	419.6	438.4
	Power input	kW	25.64	27.42	29.26	30.95	32.89	32.03
Heating <sup>2</sup>	Capacity	kW	3.90	3.88	3.81	3.80	3.74	4.01
		kBtu/h	112.0	119.0	125.0	132.0	138.0	144.0
	Power input	kW	382.2	406.0	426.5	450.3	470.8	491.4
Connected indoor units	Total capacity	50-130% of outdoor unit capacity						
	Maximum quantity	59	63	64	64	64	64	
Compressors	Type	DC inverter						
	Quantity	4						
Fan motors	Type	DC						
	Quantity	4						
Refrigerant	Type	R410A						
	Factory charge	kg (lbs.)	13x2 (29x2)	13+16 (29+35)	13+16 (29+35)	16x2 (35x2)	16x2 (35x2)	11x2+16 (24x2+35)
Pipe connections <sup>3</sup>	Liquid pipe	mm (in.)	Φ15.9 (Φ5/8)					
	Gas pipe	mm (in.)	Φ31.8 (Φ1-1/4)					
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)					
Air flow rate	m <sup>3</sup> /h	32000	30000	32000	32000	32000	40000	
Sound pressure level <sup>4</sup>	dB(A)	(1340x1635x790)x2						
Net dimensions (WxHxD)	mm	(1340x1635x790)x2						
	in.	(52-3/4x64-3/8x31-1/8)x2						
Packed dimensions (WxHxD)	mm	(1405x1805x855)x2						
	in.	(55-3/8x71-1/16x33-5/8)x2						
Net weight	kg (lbs.)	305x2 (673x2)	297+340 (655+750)	305+340 (673+750)	340x2 (750x2)	340x2 (750x2)	237x2+340 (523x2+750)	
Gross weight	kg (lbs.)	323x2 (712x2)	315+358 (695+790)	323+358 (712+790)	358x2 (790x2)	358x2 (790x2)	252x2+358 (556x2+790)	
Operating temperature range	°C (°F)	Cooling: -5 to 48 (23 to 118.4); Heating: -20 to 24 (-4 to 75.2)						

- Notes:
- Indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
  - Indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) 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 (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to the V5 X Series Technical Service Manual for connection piping diameters.
  - Sound pressure level is measured at a position 1m (3.28ft) in front of the unit and 1.3m (4.3ft) above the floor in a semi-anechoic chamber.
- The combinations of units shown in the table are factory-recommended. Other combinations of units are also possible.



# Specifications

380-415V 50(60)Hz / 220V 60Hz



Capacity	HP	48	50	52	54	56	
Model	380-415V	MV5-X1345W/V2GN1	MV5-X1395W/V2GN1	MV5-X1455W/V2GN1	MV5-X1510W/V2GN1	MV5-X1565W/V2GN1	
Model	220V	MV5-X1345W/V2DN1	MV5-X1395W/V2DN1	MV5-X1455W/V2DN1	MV5-X1510W/V2DN1	MV5-X1565W/V2DN1	
Combination		10HP+16HP+22HP	10HP+18HP+22HP	10HP+20HP+22HP	10HP+22HPx2	12HP+22HPx2	
Power supply		3 phase, 380-415V, 50/60Hz or 3 phase, 220V, 60Hz					
Cooling <sup>1</sup>	Capacity	kW	134.5	139.5	145.5	151.0	156.5
		kBtu/h	458.8	475.9	496.4	515.1	533.9
	Power input	kW	33.64	35.49	37.17	39.11	40.68
	EER		4.00	3.93	3.91	3.86	3.82
Heating <sup>2</sup>	Capacity	kW	150.5	156.5	163.5	169.5	175.5
		kBtu/h	513.5	534.0	557.8	578.3	598.8
	Power input	kW	33.93	36.24	38.36	40.19	41.90
	COP		4.44	4.32	4.26	4.22	4.19
Connected indoor units	Total capacity	50-130% of outdoor unit capacity					
	Maximum quantity	64	64	64	64	64	
Compressors	Type	DC inverter					
	Quantity	5	5	5	5	5	
Fan motors	Type	DC					
	Quantity	5	5	5	5	5	
Refrigerant	Type	R410A					
	Factory charge	kg (lbs.)	9+13+16 (20+29+35)	9+13+16 (20+29+35)	9+16x2 (20+35x2)	9+16x2 (20+35x2)	11+16x2 (24+35x2)
Pipe connections <sup>3</sup>	Liquid pipe	mm (in.)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)	Φ22.2 (Φ7/8)	Φ22.2 (Φ7/8)	Φ22.2 (Φ7/8)
	Gas pipe	mm (in.)	Φ38.1 (Φ1-1/2)	Φ38.1 (Φ1-1/2)	Φ41.3 (Φ1-5/8)	Φ41.3 (Φ1-5/8)	Φ41.3 (Φ1-5/8)
	Oil balance pipe	mm (in.)			Φ8 (Φ5/16)		
	Air flow rate	m <sup>3</sup> /h	42000	44000	44000	44000	44000
Sound pressure level <sup>4</sup>		dB(A)	67	67	67	67	67
	Net dimensions (WxHxD)	mm	990x1635x790+(1340x1635x790)x2				
Packed dimensions (WxHxD)		in.	39x64-3/8x31-1/8+(52-3/4x64-3/8x31-1/8)x2				
		mm	1055x1805x855+(1405x1805x855)x2				
Net weight		kg (lbs.)	219+297+340(483+655+750)	219+305+340(483+673+750)	219+340x2 (483+750x2)	219+340x2 (483+750x2)	237+340x2 (523+750x2)
	Gross weight	kg (lbs.)	234+315+358(516+695+790)	234+323+358(516+712+790)	234+358x2 (516+790x2)	234+358x2 (516+790x2)	252+358x2 (556+790x2)
Operating temperature range		°C (°F)	Cooling: -5 to 48 (23 to 118.4); Heating: -20 to 24 (-4 to 75.2)				



Capacity	HP	58	60	62	64	66	68	
Model	380-415V	MV5-X1615W/V2GN1	MV5-X1680W/V2GN1	MV5-X1730W/V2GN1	MV5-X1790W/V2GN1	MV5-X1845W/V2GN1	MV5-X1900W/V2GN1	
Model	220V	MV5-X1615W/V2DN1	MV5-X1680W/V2DN1	MV5-X1730W/V2DN1	MV5-X1790W/V2DN1	MV5-X1845W/V2DN1	MV5-X1900W/V2DN1	
Combination		18HP+22HPx2	16HP+22HPx2	20HP+22HPx2	20HP+22HPx2	22HPx3	12HPx2+22HPx2	
Power supply		3 phase, 380-415V, 50/60Hz or 3 phase, 220V, 60Hz						
Cooling <sup>1</sup>	Capacity	kW	161.5	168.0	173.0	179.0	184.5	190.0
		kBtu/h	551.0	573.1	590.2	610.7	629.4	648.2
	Power input	kW	42.08	43.86	45.71	47.40	49.33	48.47
	EER		3.84	3.83	3.78	3.78	3.74	3.92
Heating <sup>2</sup>	Capacity	kW	181.0	188.0	194.0	201.0	207.0	213.0
		kBtu/h	617.6	641.4	661.9	685.7	706.2	726.8
	Power input	kW	43.47	45.11	47.42	49.53	51.36	46.13
	COP		4.16	4.17	4.09	4.06	4.03	4.62
Connected indoor units	Total capacity	50-130% of outdoor unit capacity						
	Maximum quantity	64	64	64	64	64	64	
Compressors	Type	DC inverter						
	Quantity	6	6	6	6	6	6	
Fan motors	Type	DC						
	Quantity	6	6	6	6	6	6	
Refrigerant	Type	R410A						
	Factory charge	kg (lbs.)	13x2+16 (29x2+35)	13+16x2 (29+35x2)	13+16x2 (29+35x2)	16x3 (35x3)	16x3 (35x3)	11x2+16x2 (24x2+35x2)
Pipe connections <sup>3</sup>	Liquid pipe	mm (in.)	Φ22.2 (Φ7/8)	Φ22.2 (Φ7/8)	Φ22.2 (Φ7/8)	Φ22.2 (Φ7/8)	Φ22.2 (Φ7/8)	Φ25.4 (Φ1)
	Gas pipe	mm (in.)	Φ41.3 (Φ1-5/8)	Φ41.3 (Φ1-5/8)	Φ41.3 (Φ1-5/8)	Φ41.3 (Φ1-5/8)	Φ41.3 (Φ1-5/8)	Φ44.5 (Φ1-3/4)
	Oil balance pipe	mm (in.)				Φ8 (Φ5/16)		
	Air flow rate	m <sup>3</sup> /h	48000	46000	48000	48000	48000	56000
Sound pressure level <sup>4</sup>		dB(A)	68	68	68	68	68	68
	Net dimensions (WxHxD)	mm	(1340x1635x790)x3					
Packed dimensions (WxHxD)		in.	(52-3/4x64-3/8x31-1/8)x3					
		mm	(1405x1805x855)x3					
Net weight		kg (lbs.)	305x2+340(673+750x2)	297+340x2 (655+750x2)	305+340x2 (673+750x2)	340x3 (750x3)	340x3 (750x3)	237x2+340x2 (523+750x2)
	Gross weight	kg (lbs.)	323x2+358(712+790x2)	315+358x2 (695+790x2)	323+358x2 (712+790x2)	358x3 (790x3)	358x3 (790x3)	252x2+358x2 (556+790x2)
Operating temperature range		°C (°F)	Cooling: -5 to 48 (23 to 118.4); Heating: -20 to 24 (-4 to 75.2)					

Notes:  
 1. Indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.  
 2. Indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) WB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.  
 3. 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 (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to the V5 X Series Technical Service Manual for connection piping diameters.  
 4. Sound pressure level is measured at a position 1m (3.28ft) in front of the unit and 1.3m (4.3ft) above the floor in a semi-anechoic chamber.  
 The combinations of units shown in the table are factory-recommended. Other combinations of units are also possible.

# Specifications

380-415V 50(60)Hz / 220V 60Hz



Capacity	HP	70	72	74	76	78	
Model	380-415V	MV5-X1960W/V2GN1	MV5-X2010W/V2GN1	MV5-X2070W/V2GN1	MV5-X2125W/V2GN1	MV5-X2180W/V2GN1	
Model	220V	MV5-X1960W/V2DN1	MV5-X2010W/V2DN1	MV5-X2070W/V2DN1	MV5-X2125W/V2DN1	MV5-X2180W/V2DN1	
Combination		10HP+16HP+22HPx2	10HP+18HP+22HPx2	10HP+20HP+22HPx2	10HP+22HPx3	12HP+22HPx3	
Power supply		3 phase, 380-415V, 50/60Hz or 3 phase, 220V, 60Hz					
Cooling <sup>1</sup>	Capacity	kW	196.0	201.0	207.0	212.5	218.0
		kBtu/h	668.6	685.7	706.2	724.9	743.7
	Power input	kW	50.09	51.93	53.62	55.55	57.12
	EER		3.91	3.86	3.82	3.83	3.82
Heating <sup>2</sup>	Capacity	kW	219.5	225.5	232.5	238.5	244.5
		kBtu/h	748.9	769.4	793.2	813.7	834.2
	Power input	kW	51.06	53.36	55.48	57.31	59.02
	COP		4.30	4.23	4.19	4.16	4.14
Connected indoor units	Total capacity	50-130% of outdoor unit capacity					
	Maximum quantity	64	64	64	64	64	
Compressors	Type	DC inverter					
	Quantity	7	7	7	7	7	
Fan motors	Type	DC					
	Quantity	7	7	7	7	7	
Refrigerant	Type	R410A					
	Factory charge	kg (lbs.)	9+13+16x2 (20+29+35x2)	9+13+16x2 (20+29+35x2)	9+16x3 (20+35x3)	9+16x3 (20+35x3)	11+16x3 (24+35x3)
Pipe connections <sup>3</sup>	Liquid pipe	mm (in.)	Φ25.4 (Φ1)	Φ25.4 (Φ1)	Φ25.4 (Φ1)	Φ25.4 (Φ1)	Φ25.4 (Φ1)
	Gas pipe	mm (in.)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)
	Oil balance pipe	mm (in.)			Φ8 (Φ5/16)		
	Air flow rate	m <sup>3</sup> /h	58000	60000	60000	60000	60000
Sound pressure level <sup>4</sup>		dB(A)	69	69	69	69	69
	Net dimensions (WxHxD)	mm	(990x1635x790)+(1340x1635x790)x3				
Packed dimensions (WxHxD)		in.	(39x64-3/8x31-1/8)+(52-3/4x64-3/8x31-1/8)x3				
		mm	(1055x1805x855)+(1405x1805x855)x3				
Net weight		kg (lbs.)	219+297+340x2(483+655+750x2)	219+305+340x2(483+673+750x2)	219+340x3 (483+750x3)	219+340x3 (483+750x3)	237+340x3 (523+750x3)
	Gross weight	kg (lbs.)	234+315+358x2(516+695+790x2)	234+323+358x2(516+712+790x2)	234+358x3 (516+790x3)	234+358x3 (516+790x3)	252+358x3 (556+790x3)
Operating temperature range		°C (°F)	Cooling: -5 to 48 (23 to 118.4); Heating: -20 to 24 (-4 to 75.2)				



Capacity	HP	80	82	84	86	88	
Model	380-415V	MV5-X2230W/V2GN1	MV5-X2295W/V2GN1	MV5-X2345W/V2GN1	MV5-X2405W/V2GN1	MV5-X2460W/V2GN1	
Model	220V	MV5-X2230W/V2DN1	MV5-X2295W/V2DN1	MV5-X2345W/V2DN1	MV5-X2405W/V2DN1	MV5-X2460W/V2DN1	
Combination		18HP+22HPx2	16HP+22HPx3	18HP+22HPx3	20HP+22HPx3	22HPx4	
Power supply		3 phase, 380-415V, 50/60Hz or 3 phase, 220V, 60Hz					
Cooling <sup>1</sup>	Capacity	kW	223.0	229.5	234.5	240.5	246.0
		kBtu/h	760.8	782.9	800.0	820.5	839.2
	Power input	kW	58.53	60.31	62.15	63.84	65.78
	EER		3.81	3.81	3.77	3.77	3.74
Heating <sup>2</sup>	Capacity	kW	250.0	257.0	263.0	270.0	276.0
		kBtu/h	853.0	876.8	897.3	921.1	941.6
	Power input	kW	60.60	62.23	64.54	66.66	68.49
	COP		4.13	4.13	4.07	4.05	4.03
Connected indoor units	Total capacity	50-130% of outdoor unit capacity					
	Maximum quantity	64	64	64	64	64	
Compressors	Type	DC inverter					
	Quantity	8	8	8	8	8	
Fan motors	Type	DC					
	Quantity	8	8	8	8	8	
Refrigerant	Type	R410A					
	Factory charge	kg (lbs.)	13x2+16x2 (29x2+35x2)	13+16x3 (29+35x3)	13+16x3 (29+35x3)	16x4 (35x4)	16x4 (35x4)
Pipe connections <sup>3</sup>	Liquid pipe	mm (in.)	Φ25.4 (Φ1)	Φ25.4 (Φ1)	Φ25.4 (Φ1)	Φ25.4 (Φ1)	Φ25.4 (Φ1)
	Gas pipe	mm (in.)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)
	Oil balance pipe	mm (in.)			Φ8 (Φ5/16)		
	Air flow rate	m <sup>3</sup> /h	64000	62000	64000	64000	64000
Sound pressure level <sup>4</sup>		dB(A)	70	70	70	70	70
	Net dimensions (WxHxD)	mm	(1340x1635x790)x4				
Packed dimensions (WxHxD)		in.	(52-3/4x64-3/8x31-1/8)x4				
		mm	(1405x1805x855)x4				
Net weight		kg (lbs.)	305x2+340x2 (673+750x2)	297+340x3 (655+750x3)	305+340x3 (673+750x3)	340x4 (750x4)	340x4 (750x4)
	Gross weight	kg (lbs.)	323x2+358x2 (712+790x2)	315+358x3 (695+790x3)	323+358x3 (712+790x3)	358x4 (790x4)	358x4 (790x4)
Operating temperature range		°C (°F)	Cooling: -5 to 48 (23 to 118.4); Heating: -20 to 24 (-4 to 75.2)				

Notes:  
 1. Indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.  
 2. Indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) WB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.  
 3. 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 (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to the V5 X Series Technical Service Manual for connection piping diameters.  
 4. Sound pressure level is measured at a position 1m (3.28ft) in front of the unit and 1.3m (4.3ft) above the floor in a semi-anechoic chamber.  
 The combinations of units shown in the table are factory-recommended. Other combinations of units are also possible.



INDOOR UNITS

INDOOR UNITS

## » INDOOR UNITS

One-way Cassette

Two-way Cassette

Four-way Cassette

Low Static Pressure Duct

Medium Static Pressure Duct (A5 Duct)

High Static Pressure Duct

Fresh Air Processing Unit

Wall-mounted

Ceiling & Floor

Floor Standing

Console



# Cassette Units



One-way Cassette



Two-way Cassette



Compact Four-way Cassette



Four-way Cassette

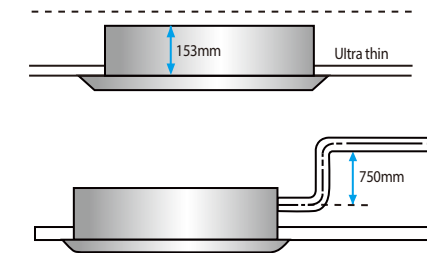


- Auto Restart Function
- Auto Addressing
- Fresh Air
- Auto Defrosting
- Easy-cleaning Panel
- Follow Me
- Anti-cold Air Function
- Built-in Drain Pump
- LED Display
- Built-in Filter
- Independent Dehumidification
- Timer
- Auto Swing
- Wired Controller

## One-way Cassette

Only 153mm high >>

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 pump head is fitted as standard.

Fresh Air Intake >>

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



## Specifications

### 50Hz AC fan motors

Model	MDV-D18Q1/N1-D	MDV-D22Q1/N1-D	MDV-D28Q1/N1-D	MDV-D36Q1/N1-D	MDV-D45Q1/N1-D	MDV-D56Q1/N1-D	MDV-D71Q1/N1-D		
Power supply	1-phase,220-240V,50Hz								
Capacity	Cooling	kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	kW	2.2	2.6	3.2	4.0	5.0	6.3	8.0
Power input	Cooling	W	41	41	41	41	48	48	60
	Heating	W	41	41	41	41	43	44	55
Airflow rate(H/M/L)	m <sup>3</sup> /h	523/404/275	523/404/275	573/456/315	573/456/315	693/600/476	792/688/549	933/749/592	
Sound pressure level(H/M/L)	dB(A)	37/34/30	38/34/30	39/37/34	40/38/34	41/39/35	42/40/36	44/41/37	
Main body	Net dim.(WxHxD)	mm	1054x153x425	1054x153x425	1054x153x425	1054x153x425	1275x189x450	1275x189x450	1275x189x450
	Packing dim.(WxHxD)	mm	1155x245x490	1155x245x490	1155x245x490	1155x245x490	1370x295x505	1370x295x505	1370x295x505
	Net/gross weight	kg	12.5/16	12.5/16	13/16.5	13/16.5	18.5/22.8	18.8/23.1	19.5/23.8
Panel	Net dim.(WxHxD)	mm	1180x25x465	1180x25x465	1180x25x465	1180x25x465	1350x25x505	1350x25x505	1350x25x505
	Packing dim.(WxHxD)	mm	1232x107x517	1232x107x517	1232x107x517	1232x107x517	1410x95x560	1410x95x560	1410x95x560
	Net/gross weight	kg	3.5/5.2	3.5/5.2	3.5/5.2	3.5/5.2	4/5.4	4/5.4	4/5.4
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller	Wireless remote controller								

### 60Hz AC fan motors

Model	MDV-D18Q1/N1-D	MDV-D22Q1/N1-D	MDV-D28Q1/N1-D	MDV-D36Q1/N1-D	MDV-D45Q1/N1-D	MDV-D56Q1/N1-D	MDV-D71Q1/N1-D		
Power supply	1-phase,208-230V,60Hz								
Cooling capacity	kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1	
	Btu/h	6100	7500	9600	12300	15400	19100	24200	
Heating capacity	kW	2.2	2.6	3.2	4.0	5.0	6.3	8.0	
	Btu/h	7500	8900	10900	13600	17100	21500	27300	
Power input	Cooling	W	41	41	41	41	54	60	75
	Heating	W	41	41	41	41	44	50	65
Airflow rate(H/M/L)	m <sup>3</sup> /h	523/404/275	523/404/275	573/456/315	573/456/315	693/600/476	792/688/549	933/749/592	
Sound pressure level(H/M/L)	CFM	308/238/162	308/238/162	337/268/185	337/268/185	408/353/280	466/405/323	549/441/349	
Main body	Net dim.(WxHxD)	mm(in.)	1054x153x425(41-1/2x6-1/32x16-47/64)				1275x189x450(50-13/64x7-7/16x17-23/32)		
	Packing dim.(WxHxD)	mm(in.)	1155x245x490(45-15/32x9-41/64x19-19/64)				1370x295x505(53-15/16x11-39/64x19-7/8)		
	Net/gross weight	kg(lbs.)	12.5/16(27.8/35.3)				18.5/22.8(40.8/50.3)		
Panel	Net dim.(WxHxD)	mm(in.)	1180x25x465(46-29/64x63/64x18-5/16)				1350x25x505(53-5/32x63/64x19-7/8)		
	Packing dim.(WxHxD)	mm(in.)	1232x107x517(48-1/2x4-7/32x20-23/64)				1410x95x560(55-33/64x3-47/64x22-3/64)		
	Net/gross weight	kg(lbs.)	3.5/5.2(7.7/11.5)				4/5.4(8.8/11.9)		
Piping connections	Liquid/gas pipe	mm(in.)	Φ6.35/Φ12.7(Φ1/4/Φ1/2)				Φ9.53/Φ15.9(Φ3/8/Φ5/8)		
	Drain pipe	mm(in.)	Φ25(OD 63/64)						
Standard controller	Wireless remote controller								

Notes:

1. Nominal capacities are based on the following conditions:

- Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.

2. Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.

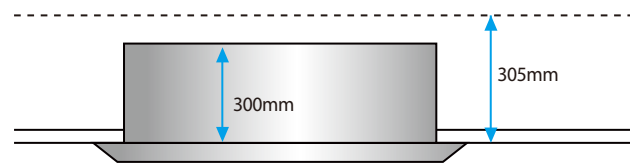
## Two-way Cassette

### Low Sound Level >>

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

### Stylish Design and Slim Body >>

A stylish design and slim body make the Two-way Cassette suited to any room's decor and ambience. At only 300mm high, it can be installed in most ceiling spaces.



## Specifications

### 50Hz AC fan motors

Model	MDV-D22Q2/N1	MDV-D28Q2/N1	MDV-D36Q2/N1	MDV-D45Q2/N1	MDV-D56Q2/N1	MDV-D71Q2/N1		
Power supply	1-phase,220-240V,50Hz							
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	kW	2.6	3.2	4.0	5.0	6.3	8.0
Power input	Cooling	W	57	57	60	92	108	154
	Heating	W	57	57	60	92	108	154
Airflow rate(H/M/L)	m³/h	654/530/410	654/530/410	725/591/458	850/670/550	980/800/670	1,200/1,000/770	
Sound pressure level(H/M/L)	dB(A)	33/29/24	36/32/29	36/32/29	39/35/30	39/35/30	44/40/34	
Main body	Net dim.(WxHxD)	mm	1172x299x591	1172x299x591	1172x299x591	1172x299x591	1172x299x591	
	Packing dim.(WxHxD)	mm	1355x400x675	1355x400x675	1355x400x675	1355x400x675	1355x400x675	
	Net/gross weight	kg	34/42.5	34/42.5	34/42.5	36/44.5	36/44.5	
Panel	Net dim.(WxHxD)	mm	1430x53x680	1430x53x680	1430x53x680	1430x53x680	1430x53x680	
	Packing dim.(WxHxD)	mm	1525x130x765	1525x130x765	1525x130x765	1525x130x765	1525x130x765	
	Net/gross weight	kg	10.5/15	10.5/15	10.5/15	10.5/15	10.5/15	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32	
Standard controller	Wireless remote controller							

### 60Hz AC fan motors

Model	MDV-D22Q2/VN1	MDV-D28Q2/VN1	MDV-D36Q2/VN1	MDV-D45Q2/VN1	MDV-D56Q2/VN1	MDV-D71Q2/VN1	
Power supply	1-phase,208-230V,60Hz						
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Btu/h	7500	9600	12300	15400	19100	24200
Heating capacity	kW	2.6	3.2	4.0	5.0	6.3	8.0
	Btu/h	8900	10900	13600	17100	21500	27300
Power input	Cooling	W	78	78	83	115	133
	Heating	W	78	78	83	115	133
Airflow rate(H/M/L)	m³/h	674/509/381	674/509/381	740/577/435	878/689/561	941/776/654	1236/1110/864
	CFM	397/300/224	397/300/224	436/340/256	517/406/330	554/457/385	727/653/509
Sound pressure level(H/M/L)	dB(A)	33/29/24	36/32/29	36/32/29	39/35/30	39/35/30	44/40/34
Main body	Net dim.(WxHxD)	mm(in.) 1172x299x591(46-9/32x11-49/64x23-17/64)					
	Packing dim.(WxHxD)	mm(in.) 1355x400x675(53-11/32x15-3/4x26-37/64)					
	Net/gross weight	kg(lbs.) 34/42.5(75/94) 36.5/45(80.5/99)					
Panel	Net dim.(WxHxD)	mm(in.) 1430x53x680(56-19/64x2-3/32x26-49/64)					
	Packing dim.(WxHxD)	mm(in.) 1525x130x765(60-3/64x5-1/8x30-1/8)					
	Net/gross weight	kg(lbs.) 10.5/15(23/33)					
Piping connections	Liquid/gas pipe	mm(in.) Φ6.35/Φ12.7(Φ1/4/Φ1/2)			mm(in.) Φ9.53/Φ15.9(Φ3/8/Φ5/8)		
	Drain pipe	mm(in.) Φ32(OD 1-17/64)					
Standard controller	Wireless remote controller						

Notes:

1. Nominal capacities are based on the following conditions:

- Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.

2. Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.

### High-lift Drain Pump >>

A drain pump with a 750mm pump head is fitted as standard, simplifying installation of the drain piping. Higher pump heads are available as a customization option.

### High Airflow >>

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



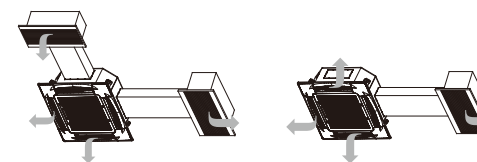
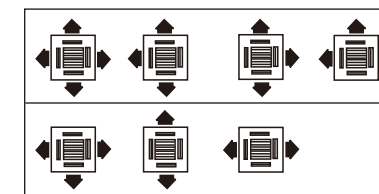
## Four-way Cassette

### Multiple Options >>

Three different versions of Four-way Cassette can be selected based on ceiling arrangements and user preference: Compact Four-way Cassette, Four-way Cassette and Silent Four-way Cassette

### Multiple Airflow Patterns >>

Seven airflow patterns with up to four flow directions can be selected to suit the requirements of the installation site or the shape of the room. Sub-ducts may also be connected.



### High-lift Drain Pump >>

A drain pump with a 500mm pump head is fitted as standard to the Compact Four-way Cassette. Higher pump heads (of up to 600mm) are available as a customization option. On the Four-way Cassette and Silent Four-way Cassette a drain pump with a 750mm pump head is fitted as standard, simplifying installation of the drain piping.

## Specifications

### Compact Four-way Cassette (DC fan motors)

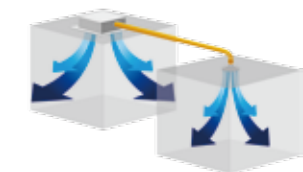
Model	MI-22Q4/DHN1-A3	MI-28Q4/DHN1-A3	MI-36Q4/DHN1-A3	MI-45Q4/DHN1-A3		
Power supply	1-phase,220-240V,50/60Hz					
Capacity	Cooling	kW	2.2	2.8	3.6	4.5
	Heating	kW	2.4	3.2	4.0	5.0
Power input	Cooling	W	15	16	21	21
	Heating	W	13	13	18	18
Airflow rate(H/M/L)	m³/h	526/449/364	576/503/405	604/516/400	604/516/400	
Sound pressure level(H/M/L)	dB(A)	34.8/32.4/22.4	34.8/32.4/22.4	40.5/34.6/27.8	40.5/34.6/27.8	
Sound power level(H/M/L)	dB(A)	46/44/35	46/44/35	52/47/41	52/47/41	
Main body	Net dim.(WxHxD)	mm	570x260x570	570x260x570	570x260x570	
	Packing dim.(WxHxD)	mm	675x285x675	675x285x675	675x285x675	
	Net/gross weight	kg	16/22	16/22	17.5/23.5	17.5/23.5
Panel	Net dim.(WxHxD)	mm	647x50x647	647x50x647	647x50x647	
	Packing dim.(WxHxD)	mm	715x123x715	715x123x715	715x123x715	
	Net/gross weight	kg	2.5/4.5	2.5/4.5	2.5/4.5	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wireless remote controller					

### Fan Motor Options >>

Choose either AC or DC fan motors.

### Sub Duct >>

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



### 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.





## Compact Four-way Cassette (50Hz AC fan motors)

Model			MDV-D22Q4/N1-A3	MDV-D28Q4/N1-A3	MDV-D36Q4/N1-A3	MDV-D45Q4/N1-A3
Power supply			1-phase,220-240V,50Hz			
Capacity	Cooling	kW	2.2	2.8	3.6	4.5
	Heating	kW	2.4	3.2	4.0	5.0
Power input	Cooling	W	50	50	56	56
	Heating	W	50	50	56	56
Airflow rate(H/M/L)		m <sup>3</sup> /h	414/313/238	414/313/238	521/409/314	521/409/314
Sound pressure level(H/M/L)		dB(A)	35.8/33.4/23.4	35.8/33.4/23.4	41.5/35.6/28.8	41.5/35.6/28.8
Main body	Net dim.(WxHxD)	mm	570x260x570	570x260x570	570x260x570	570x260x570
	Packing dim.(WxHxD)	mm	675x285x675	675x285x675	675x285x675	675x285x675
	Net/gross weight	kg	16/20	16/20	18/22	18/22
Panel	Net dim.(WxHxD)	mm	647x50x647	647x50x647	647x50x647	647x50x647
	Packing dim.(WxHxD)	mm	715x123x715	715x123x715	715x123x715	715x123x715
	Net/gross weight	kg	2.5/4.5	2.5/4.5	2.5/4.5	2.5/4.5
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller			Wireless remote controller			

## Compact Four-way Cassette (60Hz AC fan motors)

Model			MDV-D22Q4/VN1-A3	MDV-D28Q4/VN1-A3	MDV-D36Q4/VN1-A3	MDV-D45Q4/VN1-A3
Power supply			1-phase,208-230V,60Hz			
Cooling capacity	kW		2.2	2.8	3.6	4.5
	Btu/h		7500	9600	12300	15400
Heating capacity	kW		2.4	3.2	4.0	5.0
	Btu/h		8200	10900	13600	17100
Power input	Cooling	W	51	52	58	58
	Heating	W	43	44	50	51
Airflow rate(H/M/L)		m <sup>3</sup> /h	397/292/215	408/310/231	496/359/263	496/359/263
		CFM	234/172/127	240/182/136	292/211/155	292/211/155
Sound pressure level(H/M/L)		dB(A)	35.8/33.4/23.4	35.8/33.4/23.4	41.5/35.6/28.8	41.5/35.6/28.8
Main body	Net dim.(WxHxD)	mm(in.)	570x260x570(22-7/16x10-15/64x22-7/16)			
	Packing dim.(WxHxD)	mm(in.)	675x285x675(26-9/16x11-7/32x26-9/16)			
	Net/gross weight	kg(lbs.)	16/20(35.3/44.1)		18/22(39.7/48.5)	
Panel	Net dim.(WxHxD)	mm(in.)	647x50x647(25-15/32x1-31/32x25-15/32)			
	Packing dim.(WxHxD)	mm(in.)	715x123x715(28-5/32x4-27/32x28-5/32)			
	Net/gross weight	kg(lbs.)	3/5(6.6/11)			
Piping connections	Liquid/gas pipe	mm(in.)	Φ6.35/Φ12.7(Φ1/4/Φ1/2)			
	Drain pipe	mm(in.)	Φ25(OD 63/64)			
Standard controller			Wireless remote controller			

## Four-way Cassette (50Hz AC fan motors)

Model			MDV-D28Q4/N1-D	MDV-D36Q4/N1-D	MDV-D45Q4/N1-D	MDV-D56Q4/N1-D	MDV-D71Q4/N1-D
Power supply			1-phase,220-240V,50Hz				
Capacity	Cooling	kW	2.8	3.6	4.5	5.6	7.1
	Heating	kW	3.2	4.0	5.0	6.3	8.0
Power input	Cooling	W	65	65	75	75	82
	Heating	W	65	65	75	75	82
Airflow rate(H/M/L)		m <sup>3</sup> /h	847/766/640	847/766/640	864/755/658	864/755/658	1,157/955/749
Sound pressure level(H/M/L)		dB(A)	42/38/35	42/38/35	42/38/35	42/38/35	45/42/39
Main body	Net dim.(WxHxD)	mm	904x230x840	904x230x840	904x230x840	904x230x840	904x230x840
	Packing dim.(WxHxD)	mm	955x260x955	955x260x955	955x260x955	955x260x955	955x260x955
	Net/gross weight	kg	24/28	24/28	26/30	26/30	26/30
Panel	Net dim.(WxHxD)	mm	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950
	Packing dim.(WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035
	Net/gross weight	kg	6/9	6/9	6/9	6/9	6/9
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard controller			Wireless remote controller				

Model			MDV-D80Q4/N1-D	MDV-D90Q4/N1-D	MDV-D100Q4/N1-D	MDV-D112Q4/N1-D	MDV-D140Q4/N1-D
Power supply			1-phase,220-240V,50Hz				
Capacity	Cooling	kW	8.0	9.0	10.0	11.2	14.0
	Heating	kW	9.0	10.0	11.1	12.5	15.0
Power input	Cooling	W	97	160	160	160	170
	Heating	W	97	160	160	160	170
Airflow rate(H/M/L)		m <sup>3</sup> /h	1236/973/729	1540/1300/1120	1540/1300/1120	1540/1300/1120	1800/1500/1280
Sound pressure level(H/M/L)		dB(A)	45/42/39	48/45/43	48/45/43	48/45/43	50/47/44
Main body	Net dim.(WxHxD)	mm	904x230x840	904x300x840	904x300x840	904x300x840	904x300x840
	Packing dim.(WxHxD)	mm	955x260x955	955x330x955	955x330x955	955x330x955	955x330x955
	Net/gross weight	kg	26/30	32/37	32/37	32/37	32/37
Panel	Net dim.(WxHxD)	mm	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950
	Packing dim.(WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035
	Net/gross weight	kg	6/9	6/9	6/9	6/9	6/9
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard controller			Wireless remote controller				

## Four-way Cassette (60Hz AC fan motors)

Model			MDV-D28Q4/N1-D	MDV-D36Q4/N1-D	MDV-D45Q4/N1-D	MDV-D56Q4/N1-D	MDV-D71Q4/N1-D
Power supply			1-phase, 220-240V, 60Hz				
Cooling capacity	kW		2.8	3.6	4.5	5.6	7.1
	Btu/h		9600	12300	15400	19100	24200
Heating capacity	kW		3.2	4.0	5.0	6.3	8.0
	Btu/h		10900	13600	17100	21500	27300
Power input	Cooling	W	90	90	90	90	115
	Heating	W	90	90	90	90	115
Airflow rate(H/M/L)		m <sup>3</sup> /h	847/766/640	847/766/640	864/755/658	864/755/658	1157/955/749
		CFM	499/451/377	499/451/377	509/444/387	509/444/387	681/562/441
Sound pressure level(H/M/L)		dB(A)	42/38/35	42/38/35	42/38/35	42/38/35	45/42/39
Main body	Net dim.(WxHxD)	mm(in.)	904x230x840(35-19/32x9-1/16x33-5/64)				
	Packing dim.(WxHxD)	mm(in.)	955x260x955(37-19/32x10-15/64x37-19/32)				
	Net/gross weight	kg(lbs.)	24/28(53/61.7)		26/30(57.3/66.2)		
Panel	Net dim.(WxHxD)	mm(in.)	950x54.5x950(37-13/32x2-9/64x37-13/32)				
	Packing dim.(WxHxD)	mm(in.)	1035x90x1035(40-3/4x3-35/64x40-3/4)				
	Net/gross weight	kg(lbs.)	5/8(11.0/17.5)				
Piping connections	Liquid/gas pipe	mm(in.)	Φ6.35/Φ12.7(Φ1/4/Φ1/2)			Φ9.53/Φ15.9(Φ3/8/Φ5/8)	
	Drain pipe	mm(in.)	Φ32(OD 1-17/64)				
Standard controller			Wireless remote controller				

Model			MDV-D80Q4/N1-D	MDV-D90Q4/N1-D	MDV-D100Q4/N1-D	MDV-D112Q4/N1-D	MDV-D140Q4/N1-D
Power supply			1-phase, 220-240V, 60Hz				
Cooling capacity	kW		8.0	9.0	10.0	11.2	14.0
	Btu/h		27300	30700	34100	38200	47800
Heating capacity	kW		9.0	10.0	11.1	12.5	15.0
	Btu/h		30700	34100	37900	42700	51200
Power input	Cooling	W	115	160	160	160	180
	Heating	W	115	160	160	160	180
Airflow rate(H/M/L)		m <sup>3</sup> /h	1236/973/729	1590/1300/1090	1590/1300/1090	1590/1300/1090	1678/1358/1115
		CFM	727/573/429	936/765/642	936/765/642	936/765/642	988/799/656
Sound pressure level(H/M/L)		dB(A)	45/42/39	48/45/43	48/45/43	48/45/43	50/47/44
Main body	Net dim.(WxHxD)	mm(in.)	904x230x840(35-19/32x9-1/16x33-5/64)	904x300x840(35-19/32x11-13/16x33-5/64)			
	Packing dim.(WxHxD)	mm(in.)	955x260x955(37-19/32x10-15/64x37-19/32)	955x330x955(37-19/32x11-13/16x37-19/32)			
	Net/gross weight	kg(lbs.)	26/30(57.3/66)	32/37(70.5/81.6)			
Panel	Net dim.(WxHxD)	mm(in.)	950x54.5x950(37-13/32x2-9/64x37-13/32)				
	Packing dim.(WxHxD)	mm(in.)	1035x90x1035(40-3/4x3-35/64x40-3/4)				
	Net/gross weight	kg(lbs.)	5/8(11.0/17.6)				
Piping connections	Liquid/gas pipe	mm(in.)	Φ9.53/Φ15.9(Φ3/8/Φ5/8)				
	Drain pipe	mm(in.)	Φ32(OD 1-17/64)				
Standard controller			Wireless remote controller				

## Four-way Cassette (DC fan motors)

Model	MI-28Q4/DHN1-D	MI-36Q4/DHN1-D	MI-45Q4/DHN1-D	MI-56Q4/DHN1-D	MI-71Q4/DHN1-D		
Power supply	1-phase,220-240V,50/60Hz						
Capacity	Cooling	kW	2.8	3.6	4.5	5.6	7.1
	Heating	kW	3.2	4.0	5.0	6.3	8.0
Power input	Cooling	W	25	25	31	31	46
	Heating	W	25	25	31	31	46
Airflow rate(H/M/L)	m <sup>3</sup> /h	982/832/677	982/832/677	1029/857/704	1029/857/704	1200/996/748	
Sound pressure level(H/M/L)	dB(A)	42/37/32	42/37/32	43/38/34	43/38/34	45/39/34	
Sound power level(H/M/L)	dB(A)	53/49/45	53/49/45	54/50/47	54/50/47	56/51/47	
Main body	Net dim.(WxHxD)	mm	904x230x840	904x230x840	904x230x840	904x230x840	904x230x840
	Packing dim.(WxHxD)	mm	955x260x955	955x260x955	955x260x955	955x260x955	955x260x955
	Net/gross weight	kg	21.8/27.6	21.8/27.6	24/29.5	24/29.5	24/29.5
Panel	Net dim.(WxHxD)	mm	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950
	Packing dim.(WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035
	Net/gross weight	kg	5/8	5/8	5/8	5/8	5/8
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard controller	Wireless remote controller						

Model	MI-80Q4/DHN1-D	MI-90Q4/DHN1-D	MI-100Q4/DHN1-D	MI-112Q4/DHN1-D	MI-140Q4/DHN1-D		
Power supply	1-phase,220-240V,50/60Hz						
Capacity	Cooling	kW	8.0	9.0	10.0	11.2	14.0
	Heating	kW	9.0	10.0	11.1	12.5	15.0
Power input	Cooling	W	48	75	75	75	94
	Heating	W	48	75	75	75	94
Airflow rate(H/M/L)	m <sup>3</sup> /h	1264/1055/811	1596/1239/1034	1596/1239/1034	1596/1239/1034	1727/1426/1224	
Sound pressure level(H/M/L)	dB(A)	46/40/35	47/41/36	47/41/36	47/41/36	50/45/35	
Sound power level(H/M/L)	dB(A)	57/52/48	58/53/49	58/53/49	58/53/49	61/57/48	
Main body	Net dim.(WxHxD)	mm	904x230x840	904x300x840	904x300x840	904x300x840	904x300x840
	Packing dim.(WxHxD)	mm	955x260x955	955x330x955	955x330x955	955x330x955	955x330x955
	Net/gross weight	kg	24/29.5	27.4/33.2	27.4/33.2	27.4/33.2	30/35.8
Panel	Net dim.(WxHxD)	mm	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950
	Packing dim.(WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035
	Net/gross weight	kg	5/8	5/8	5/8	5/8	5/8
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard controller	Wireless remote controller						

## Silent Four-way Cassette (50Hz AC fan motors)

Model	MDV-D28Q4/N1-E	MDV-D36Q4/N1-E	MDV-D45Q4/N1-E	MDV-D56Q4/N1-E	MDV-D71Q4/N1-E		
Power supply	1-phase,220-240V,50Hz						
Capacity	Cooling	kW	2.8	3.6	4.5	5.6	7.1
	Heating	kW	3.2	4.0	5.0	6.3	8.0
Power input	Cooling	W	80	80	88	88	88
	Heating	W	80	80	88	88	88
Airflow rate(H/M/L)	m <sup>3</sup> /h	764/638/554	764/638/554	905/740/651	905/740/651	950/767/663	
Sound pressure level(H/M/L)	dB(A)	32/31/30	32/31/30	36/34/33	36/34/33	38/36/35	
Main body	Net dim.(WxHxD)	mm	840x230x840	840x230x840	840x230x840	840x230x840	840x230x840
	Packing dim.(WxHxD)	mm	955x260x955	955x260x955	955x260x955	955x260x955	955x260x955
	Net/gross weight	kg	21.5/26.7	21.5/26.7	23.7/28.9	23.7/28.9	23.7/28.9
Panel	Net dim.(WxHxD)	mm	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950
	Packing dim.(WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035
	Net/gross weight	kg	6/9	6/9	6/9	6/9	6/9
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard controller	Wireless remote controller						

Model	MDV-D80Q4/N1-E	MDV-D90Q4/N1-E	MDV-D100Q4/N1-E	MDV-D112Q4/N1-E	MDV-D140Q4/N1-E		
Power supply	1-phase,220-240V,50Hz						
Capacity	Cooling	kW	8.0	9.0	10.0	11.2	14.0
	Heating	kW	9.0	10.0	11.1	12.5	15.0
Power input	Cooling	W	110	140	165	165	176
	Heating	W	110	140	165	165	176
Airflow rate(H/M/L)	m <sup>3</sup> /h	1200/1021/789	1332/1129/908	1651/1304/1127	1651/1304/1127	1658/1335/1130	
Sound pressure level(H/M/L)	dB(A)	42/39/37	43/39/38	45/42/40	45/42/40	46/41/39	
Main body	Net dim.(WxHxD)	mm	840x230x840	840x300x840	840x300x840	840x300x840	840x300x840
	Packing dim.(WxHxD)	mm	955x260x955	955x330x955	955x330x955	955x330x955	955x330x955
	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	Net dim.(WxHxD)	mm	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950	950x54.5x950
	Packing dim.(WxHxD)	mm	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035	1035x90x1035
	Net/gross weight	kg	6/9	6/9	6/9	6/9	6/9
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32
Standard controller	Wireless remote controller						

## Silent Four-way Cassette (60Hz AC fan motors)

Model	MDV-D28Q4/VN1-E	MDV-D36Q4/VN1-E	MDV-D45Q4/VN1-E	MDV-D56Q4/VN1-E	MDV-D71Q4/VN1-E		
Power supply	1-phase,208-230V,60Hz						
Cooling capacity	kW	2.8	3.6	4.5	5.6	7.1	
	Btu/h	9600	12300	15400	19100	24200	
Heating capacity	kW	3.2	4.0	5.0	6.3	8.0	
	Btu/h	10900	13600	17100	21500	27300	
Power input	Cooling	W	80	80	88	88	105
	Heating	W	80	80	88	88	105
Airflow rate(H/M/L)	m <sup>3</sup> /h	791/674/596	791/674/596	942/777/662	942/777/662	1235/1013/805	
	CFM	465/396/351	465/396/351	554/457/389	554/457/389	726/596/474	
Sound pressure level(H/M/L)	dB(A)	30/25/22	30/25/22	35/31/27	35/31/27	43/37/31	
Main body	Net dim.(WxHxD)	mm(in.)	840x230x840(33-1/16x9-1/16x33-1/16)				
	Packing dim.(WxHxD)	mm(in.)	955x260x955(37-19/32x10-1/4x37-19/32)				
	Net/gross weight	kg(lbs.)	21.5/26.7(47.3/58.7)		23.7/28.9(52.1/63.6)		
Panel	Net dim.(WxHxD)	mm(in.)	950x54.5x950(37-1/32x2-9/64x37-1/32)				
	Packing dim.(WxHxD)	mm(in.)	1035x90x1035(40-3/4x3-9/16x40-3/4)				
	Net/gross weight	kg(lbs.)	6/9(13.2/19.8)				
Piping connections	Liquid/gas pipe	mm(in.)	Φ6.35/Φ12.7(Φ1/4/Φ1/2)		Φ9.53/Φ15.9(Φ3/8/Φ5/8)		
	Drain pipe	mm(in.)	Φ32(OD 1-17/64)				
Standard controller	Wireless remote controller						

Model	MDV-D80Q4/VN1-E	MDV-D90Q4/VN1-E	MDV-D100Q4/VN1-E	MDV-D112Q4/VN1-E	MDV-D140Q4/VN1-E		
Power supply	1-phase,208-230V,60Hz						
Cooling capacity	kW	8.0	9.0	10.0	11.2	14.0	
	Btu/h	27300	30700	34100	38200	47800	
Heating capacity	kW	9.0	10.0	11.1	12.5	15.0	
	Btu/h	30700	34100	37900	42700	51200	
Power input	Cooling	W	120	187	200	200	220
	Heating	W	120	187	200	200	220
Airflow rate(H/M/L)	m <sup>3</sup> /h	1235/1013/805	1333/1158/957	1634/1219/1139	1634/1219/1139	1634/1219/1139	
	CFM	726/596/474	784/681/563	961/717/670	961/717/670	995/731/681	
Sound pressure level(H/M/L)	dB(A)	43/37/31	43/38/32	45/37/35	45/37/35	46/38/37	
Main body	Net dim.(WxHxD)	mm(in.)	840x230x840(33-1/16x9-1/16x33-1/16)	840x300x840(33-1/16x11-13/16x33-1/16)			
	Packing dim.(WxHxD)	mm(in.)	955x260x955(37-19/32x10-1/4x37-19/32)	955x330x955(37-19/32x11-13/16x37-19/32)			
	Net/gross weight	kg(lbs.)	23.7/28.9(52.1/63.6)	28.7/34.1(63.1/75)		30.9/36.3(68/79.9)	
Panel	Net dim.(WxHxD)	mm(in.)	950x54.5x950(37-1/32x2-9/64x37-1/32)				
	Packing dim.(WxHxD)	mm(in.)	1035x90x1035(40-3/4x3-35/64x40-3/4)				
	Net/gross weight	kg(lbs.)	6/9(13.2/19.8)				
Piping connections	Liquid/gas pipe	mm(in.)	Φ9.53/Φ15.9(Φ3/8/Φ5/8)				
	Drain pipe	mm(in.)	Φ32(OD 1-17/64)				
Standard controller	Wireless remote controller						

Notes:

1. Nominal capacities are based on the following conditions:

- Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.

2. Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.



# Duct Units

INDOOR UNITS

INDOOR UNITS



Low static pressure duct

Medium pressure duct (A5 Duct)

High Static Pressure Duct

Fresh Air Processing Unit

## Low Static Pressure Duct

### Low Sound Level >>

The Low Static Pressure Duct indoor unit utilizes centrifugal blowers, reducing noise levels to as low as 24dB(A), and is an excellent choice for hotels and other noise-sensitive locations.

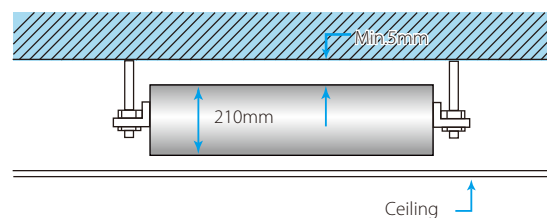


### V-shaped Evaporator >>

A V-shaped evaporator design enhances heat exchanging efficiency by 22%.

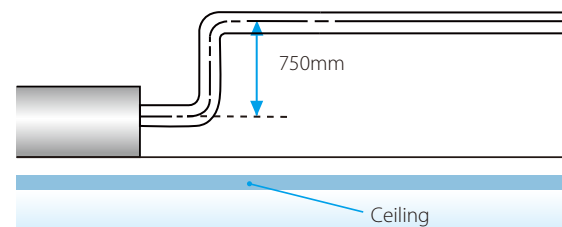
### Compact Design >>

A compact design, with a uniform height of 210mm, enables installation even where ceiling space is limited.



### Drain Pump >>

A drain pump with a 750mm pump head is available as a customization option.



### Fan Motor Options >>

Choose either AC or DC fan motors.



## Specifications

### DC fan motors

Model	MI-18T3/DHN1-C	MI-22T3/DHN1-C	MI-28T3/DHN1-C	MI-36T3/DHN1-C	MI-45T3/DHN1-C	MI-56T3/DHN1-C	MI-71T3/DHN1-C		
Power supply	1-phase,220-240V,50/60Hz								
Capacity	Cooling	kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	kW	2.2	2.6	3.2	4.0	5.0	6.3	8.0
Power input	Cooling	W	23	23	23	30	46	53	53
	Heating	W	23	23	23	30	46	53	53
Airflow rate(H/M/L)	m <sup>3</sup> /h	590/520/415	590/520/415	590/520/415	655/560/465	856/740/600	905/740/580	970/800/660	
External static pressure(Min/Std/Max)	Pa	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	
Sound pressure level(H/M/L)	dB(A)	34/26/24	34/26/24	34/26/24	37/31/28	38/31/28	38/31/28	40/32/29	
Sound power level(H/M/L)	dB(A)	45/38/37	45/38/37	45/38/37	48/43/41	49/43/41	49/43/41	51/44/42	
Net dimension(WxHxD)	mm	740x210x470	740x210x470	740x210x470	740x210x470	960x210x470	960x210x470	1180x210x470	
Packing dimension(WxHxD)	mm	910x230x510	910x230x510	910x230x510	910x230x510	1130x230x510	1130x230x510	1350x230x510	
Net/gross weight	kg	13.5/17	13.5/17	13.5/17	13.5/17	17.5/22	17.5/22	21/26.5	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wireless remote controller								

## 50Hz AC fan motors

Model	MDV-D18T3/N1-C	MDV-D22T3/N1-C	MDV-D28T3/N1-C	MDV-D36T3/N1-C	MDV-D45T3/N1-C	MDV-D56T3/N1-C	MDV-D71T3/N1-C		
Power supply	1-phase,220-240V,50Hz								
Capacity	Cooling	kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	kW	2.2	2.6	3.2	4.0	5.0	6.3	8.0
Power input	Cooling	W	83	83	83	87	97	102	138
	Heating	W	83	83	83	87	97	102	138
Airflow rate(H/M/L)	m <sup>3</sup> /h	578/512/409	578/512/409	578/512/409	617/551/441	824/690/609	824/690/609	1060/970/811	
External static pressure(Min/Std/Max)	Pa	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	
Sound pressure level(H/M/L)	dB(A)	35/27/24	35/27/24	35/27/24	38/32/28	39/32/29	39/32/29	41/33/30	
Net dimension(WxHxD)	mm	740x210x470	740x210x470	740x210x470	740x210x470	960x210x470	960x210x470	1180x210x470	
Packing dimension(WxHxD)	mm	910x230x510	910x230x510	910x230x510	910x230x510	1130x230x510	1130x230x510	1350x230x510	
Net/gross weight	kg	14/17.5	14/17.5	14/17.5	14/17.5	17.5/22	17.5/22	21/26.5	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wireless remote controller								

## 60Hz AC fan motors

Model	MDV-D18T3/VN1-C	MDV-D22T3/VN1-C	MDV-D28T3/VN1-C	MDV-D36T3/VN1-C	MDV-D45T3/VN1-C	MDV-D56T3/VN1-C	MDV-D71T3/VN1-C	
Power supply	1-phase,208-230V,60Hz							
Cooling capacity	kW	1.8	2.2	2.8	3.6	4.5	5.6	7.1
	Btu/h	6100	7500	9600	12300	15400	19100	24200
Heating capacity	kW	2.2	2.6	3.2	4.0	5.0	6.3	8.0
	Btu/h	7500	8900	10900	13600	17100	21500	27300
Power input	Cooling	W	62	62	62	65	105	130
	Heating	W	62	62	62	65	105	130
Airflow rate(H/M/L)	m <sup>3</sup> /h	578/512/409	578/512/409	578/512/409	617/551/441	824/690/609	824/690/609	1060/970/811
	CFM	340/301/241	340/301/241	340/301/241	363/324/260	485/406/358	485/406/358	624/571/477
External static pressure(Min/Std/Max)	Pa	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30
Sound pressure level(H/M/L)	dB(A)	35/27/24	35/27/24	35/27/24	38/32/28	39/32/29	39/32/29	41/33/30
Net dimension(WxHxD)	mm(in)	740x210x470(29-9/64x8-17/64x18-1/2)				960x210x470(37-51/64x8-17/64x18-1/2)		1180x210x470(46-29/64x8-17/64x18-1/2)
Packing dimension(WxHxD)	mm(in)	910x230x510(35-53/64x9-1/16x20-5/64)				1130x230x510(44-31/64x9-1/16x20-5/64)		1350x230x510(53-5/32x9-1/16x20-5/64)
Net/gross weight	kg(lbs)	14.5/18(32.0/39.7)				18/22.5(39.7/49.6)		22.5/26.5(49.6/58.5)
Piping connections	Liquid/gas pipe	mm(in)	Φ6.35/Φ12.7(Φ1/4/Φ1/2)				Φ9.53/Φ15.9(Φ3/8/Φ5/8)	
	Drain piping	mm(in)	Φ25(OD 63/64)					
Standard controller	Wireless remote controller							

Notes:

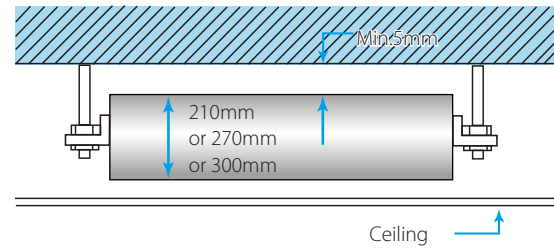
- Nominal capacities are based on the following conditions:
  - Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft) with zero level difference.
  - Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft) with zero level difference.
- Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.
- External static pressure is based on high speed indoor airflow.
- No standard filter and air plenum box.



## Medium Static Pressure Duct (A5 Duct)

### Compact Design >>

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



### Fan Motor Options >>

Choose either AC or DC fan motors.

### High-lift Drain Pump >>

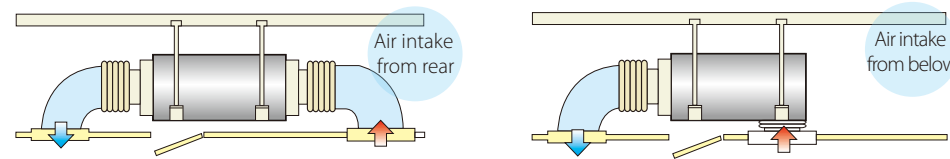
A drain pump with a 750mm pump head is fitted as standard, simplifying installation of the drain piping.

### Easy Maintenance Access, Flexible Control >>

As a customization option, for ease of access the electric control box can be separated from the unit by up to 1m. Functional ports including remote on/off dry contact and 220V alarm signal output are included as standard, providing control flexibility.

### Flexibility >>

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



## Specifications

### 50Hz AC fan motors

Model	MDV-D22T2/N1-DA5	MDV-D28T2/N1-DA5	MDV-D36T2/N1-DA5	MDV-D45T2/N1-DA5	MDV-D56T2/N1-DA5		
Power supply	1-phase,220-240V,50Hz						
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating	kW	2.6	3.2	4.0	5.0	6.3
Power input	Cooling	W	57	57	61	98	103
	Heating	W	57	57	61	98	103
Airflow rate(H/M/L)	m <sup>3</sup> /h	538/456/375	538/456/375	597/514/429	811/684/575	811/684/575	
External static pressure(Min/Std/Max)	Pa	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	
Sound pressure level(H/M/L)	dB(A)	36/35/32	37/35/32	38.6/37.5/33.8	39/37.9/34	39/37.9/34	
Net dimension(WxHxD)	mm	780x210x500	780x210x500	780x210x500	1000x210x500	1000x210x500	
Packing dimension(WxHxD)	mm	870x285x525	870x285x525	870x285x525	1115x285x525	1115x285x525	
Net/gross weight	kg	17.5/20	17.5/20	17.5/20	22.5/26	22.5/26	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller	Wired controller						

Model	MDV-D71T2/N1-DA5	MDV-D80T2/N1-BA5	MDV-D90T2/N1-BA5	MDV-D112T2/N1-BA5	MDV-D140T2/N1-BA5		
Power supply	1-phase,220-240V,50Hz						
Capacity	Cooling	kW	7.1	8.0	9.0	11.2	14.0
	Heating	kW	8.0	9.0	10.0	12.5	15.5
Power input	Cooling	W	140	198	200	313	274
	Heating	W	140	198	200	313	274
Airflow rate(H/M/L)	m <sup>3</sup> /h	1029/934/781	1345/1165/1013	1345/1165/1013	1800/1556/1400	1905/1636/1400	
External static pressure(Min/Std/Max)	Pa	0/10/30	10/20/50	10/20/50	10/40/80	10/40/100	
Sound pressure level(H/M/L)	dB(A)	41.4/39/35	45.4/39.8/37	45.4/39.8/37	48.0/41.9/38	47.7/43.2/39.0	
Net dimension(WxHxD)	mm	1220x210x500	1230x270x775	1230x270x775	1230x270x775	1290x300x865	
Packing dimension(WxHxD)	mm	1335x285x525	1355x350x795	1355x350x795	1355x350x795	1400x375x925	
Net/gross weight	kg	28/31.5	38/46.5	40/48	40/48	49/58	
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller	Wired controller						

### 60Hz AC fan motors

Model	MDV-D22T2/VN1-DA5	MDV-D28T2/VN1-DA5	MDV-D36T2/VN1-DA5	MDV-D45T2/VN1-DA5	MDV-D56T2/VN1-DA5		
Power supply	1-phase,208-230V,60Hz						
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6	
	Btu/h	7500	9600	12300	15400	19100	
Heating capacity	kW	2.6	3.2	4.0	5.0	6.3	
	Btu/h	8200	10900	13600	17100	21500	
Power input	Cooling	W	66	72	77	100	100
	Heating	W	66	72	77	100	100
Airflow rate(H/M/L)	m <sup>3</sup> /h	538/456/375	538/456/375	597/514/429	811/684/575	811/684/575	
	CFM	317/268/221	317/268/221	351/303/253	477/403/338	477/403/338	
External static pressure(Min/Std/Max)	Pa	0/10/30	0/10/30	0/10/30	0/10/30	0/10/30	
Sound pressure level(H/M/L)	dB(A)	36/35/32	36/35/32	38.6/37.5/33.8	39/37.9/34	39/37.9/34	
Net dimension(WxHxD)	mm(in.)	780x210x500(30-45/64x8-17/64x19-11/16)		1000x210x500(39-3/8x8-17/64x19-11/16)			
Packing dimension(WxHxD)	mm(in.)	870x285x525(34-1/4x11-7/32x20-43/64)		1115x285x525(43-57/64x11-7/32x20-43/64)			
Net/gross weight	kg(lbs.)	17.5/20(38.6/44.1)		22.5/26(49.6/57.3)			
Piping connections	Liquid/gas pipe	mm(in.)			Φ6.35/Φ12.7(Φ1/4/Φ1/2)		
	Drain piping	mm(in.)			Φ25(OD 63/64)		
Standard controller	Wired controller						

Model	MDV-D71T2/VN1-DA5	MDV-D80T2/VN1-BA5	MDV-D90T2/VN1-BA5	MDV-D112T2/VN1-BA5	MDV-D140T2/VN1-BA5		
Power supply	1-phase,208-230V,60Hz						
Cooling capacity	kW	7.1	8.0	9.0	11.2	14.0	
	Btu/h	24200	27300	30700	38200	47800	
Heating capacity	kW	8.0	9.0	10.0	12.5	15.5	
	Btu/h	27300	30700	34100	42700	52900	
Power input	Cooling	W	125	133	134	378	352
	Heating	W	125	133	134	378	352
Airflow rate(H/M/L)	m <sup>3</sup> /h	1029/934/781	1345/1165/1013	1345/1165/1013	1800/1556/1400	1905/1636/1400	
	CFM	606/550/460	792/686/596	792/686/596	1059/916/824	1121/963/824	
External static pressure(Min/Std/Max)	Pa	0/10/30	10/20/50	10/20/50	10/40/80	10/40/100	
Sound pressure level(H/M/L)	dB(A)	41.4/39/35	45.4/39.8/37	45.4/39.8/37	48.0/41.9/38	47.7/43.2/39	
Net dimension(WxHxD)	mm(in.)	1220x210x500 (48-1/32x8-17/64x19-11/16)	1230x270x775(48-27/64x10-5/8x30-33/64)		1290x300x865(50-25/32x 11-13/16x34-1/16)		
Packing dimension(WxHxD)	mm(in.)	1335x285x525(52-9/16x 11-7/32x20-43/64)	1355x350x795(53-11/32x13-25/31x19-64)		1400x375x925(55-1/8x14- 49/64x36-27/64)		
Net/gross weight	kg(lbs.)	28/31.5(61.8/69.5)	38/46.5(84/102.5)	40/48(88.2/105.8)	49/58(108.0/127.9)		
Piping connections	Liquid/gas pipe	mm(in.)			Φ9.53/Φ15.9(Φ3/8/Φ5/8)		
	Drain piping	mm(in.)			Φ25(OD 63/64)		
Standard controller	Wired controller						

#### Notes:

- Nominal capacities are based on the following conditions:
  - Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
  - Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.
- External static pressure is based on high speed indoor airflow.



## DC fan motors

Model			MI-22T2/DHN1-DA5	MI-28T2/DHN1-DA5	MI-36T2/DHN1-DA5	MI-45T2/DHN1-DA5	MI-56T2/DHN1-DA5
Power supply			1-phase,220-240V,50/60Hz				
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating	kW	2.6	3.2	4.0	5.0	6.3
Power input	Cooling	W	39	39	45	58	89
	Heating	W	39	39	45	58	89
Airflow rate(H/M/L)	m <sup>3</sup> /h		521/450/380	521/450/380	592/541/426	748/640/550	821/640/566
External static pressure(Min/Std/Max)	Pa		0/10/30	0/10/30	0/10/30	0/10/30	0/10/30
Sound pressure level(H/M/L)	dB(A)		35/34/31	36/34/31	37/36/33	38/37/33	38/37/33
Sound power level(H/M/L)	dB(A)		46/45/44	47/46/44	48/47/46	49/48/46	49/48/46
Net dimension(WxHxD)	mm		780x210x500	780x210x500	780x210x500	1000x210x500	1000x210x500
Packing dimension(WxHxD)	mm		870x285x525	870x285x525	870x285x525	1115x285x525	1115x285x525
Net/gross weight	kg		17.5/20	17.5/20	17.5/20	22.5/26	22.5/26
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller			Wired controller				

Model			MI-71T2/DHN1-DA5	MI-80T2/DHN1-BA5	MI-90T2/DHN1-BA5	MI-112T2/DHN1-BA5	MI-140T2/DHN1-BA5
Power supply			1-phase,220-240V,50/60Hz				
Capacity	Cooling	kW	7.1	8.0	9.0	11.2	14.0
	Heating	kW	8.0	9.0	10.0	12.5	15.5
Power input	Cooling	W	68	98	108	178	204
	Heating	W	68	98	108	178	204
Airflow rate(H/M/L)	m <sup>3</sup> /h		1021/940/778	1290/1090/940	1290/1090/940	1780/1550/1352	1950/1600/1400
External static pressure(Min/Std/Max)	Pa		0/10/30	10/20/50	10/20/50	10/40/80	10/40/100
Sound pressure level(H/M/L)	dB(A)		40/38/34	44/38/37	44/38/37	47/41/37	47/42/38
Sound power level(H/M/L)	dB(A)		51/50/47	55/50/48	55/50/48	58/53/50	58/54/50
Net dimension(WxHxD)	m <sup>3</sup> /h		1220x210x500	1230x270x775	1230x270x775	1230x270x775	1290x300x865
Packing dimension(WxHxD)	mm		1335x285x525	1355x350x795	1355x350x795	1355x350x795	1400x375x925
Net/gross weight	kg		28/31.5	38/46.5	40/48	40/48	49/58
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller			Wired controller				

Notes:

- Nominal capacities are based on the following conditions:
  - Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
  - Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.
- External static pressure is based on high speed indoor airflow.

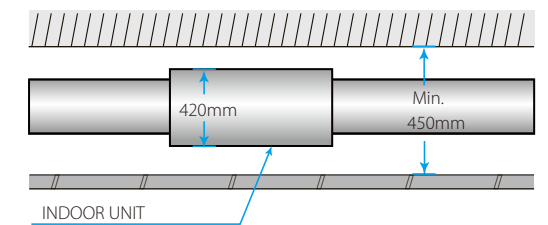
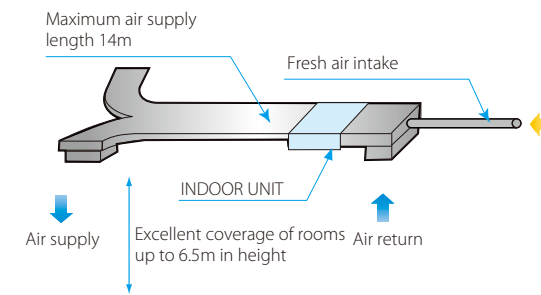
## High Static Pressure Duct

### Fan Motor Options >>

Choose either AC or DC fan motors.

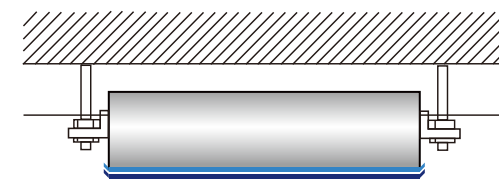
### Flexible Duct Design >>

The High Static Pressure Duct indoor unit offers external static pressures of up to 196Pa (models 71 to 160) or 280Pa (models 200 to 560), allowing air supply duct lengths of up to 14m at a height of 6.5m. With a height of just 420mm (models 71 to 160), only 450mm of ceiling space is required.



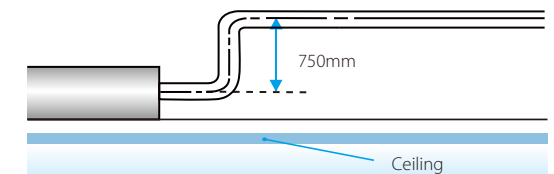
### Double-skin Drainage Pan >>

A double-skin drainage pan provides double protection for ceilings (models 71 to 160 and models 400 to 560).



### Drain Pump >>

A drain pump with a 750mm pump head is available as a customization option (models 71 to 160).



### Easy Installation >>

Flanges for air inlet/outlet ducts are fitted as standard on the High Static Pressure Duct. On models 70 to 160, the expansion valve is fitted inside the unit, requiring no extra connection.

### Easy Maintenance Access, Flexible Control >>

The wired remote controller is provided as standard and the wireless remote controller is available as a customization option. Functional ports including remote on/off dry contact are included as standard, providing additional control flexibility. For ease of installation, the electric control box's display board is factory-fitted and the filter can be accessed either from the rear or from below.

- Auto Restart Function
- Auto Addressing
- Independent Dehumidification
- Auto Defrosting
- Built-in Filter
- Follow Me
- Anti-cold Air Function
- Wired Controller
- Timer
- Built-in Drain Pump

## Specifications

### 50Hz AC fan motors

Model	MDV-D71T1/N1-B	MDV-D80T1/N1-B	MDV-D90T1/N1-B	MDV-D112T1/N1-B	MDV-D140T1/N1-B	MDV-D160T1/N1-B		
Power supply	1-phase,220-240V,50Hz							
Capacity	Cooling	kW	7.1	8.0	9.0	11.2	14.0	16.0
	Heating	kW	8.0	9.0	10.0	12.5	16.0	17.0
Power input	Cooling	W	263	263	423	524	724	940
	Heating	W	263	263	423	524	724	940
Airflow rate(H/M/L)	m <sup>3</sup> /h	1443/1361/1218	1416/1338/1220	1951/1741/1518	2116/1936/1520	3000/2618/2226	3620/3044/2744	
External static pressure(Min/Std/Max)	Pa	25/25/196	37/37/196	37/37/196	50/50/196	50/50/196	50/50/196	
Sound pressure level(H/M/L)	dB(A)	48/46/44	48/46/44.5	52/49/47	52/49/47	53/50/48	54/52/50	
Net dimension(WxHxD)	mm	952x420x690	952x420x690	952x420x690	952x420x690	1300x420x690	1300x420x690	
Packing dimension(WxHxD)	mm	1090x440x768	1090x440x768	1090x440x768	1090x440x768	1436x450x768	1436x450x768	
Net/gross weight	kg	45/50	45/50	46.5/52.4	50.6/56	68/70	70/77.5	
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wired controller							

Model	MDV-D200T1/N1-B	MDV-D250T1/N1-B	MDV-D280T1/N1-B	MDV-D400T1/N1	MDV-D450T1/N1	MDV-D560T1/N1		
Power supply	1-phase,220-240V,50Hz							
Capacity	Cooling	kW	20.0	25.0	28.0	40.0	45.0	56.0
	Heating	kW	22.5	26.0	31.5	45.0	50.0	63.0
Power input	Cooling	W	1516	1516	1516	2700	2700	3400
	Heating	W	1516	1516	1516	2700	2700	3400
Airflow rate(H/M/L)	m <sup>3</sup> /h	4700/4100/3599	4700/4100/3599	4700/4100/3599	7472/6072/4995	7472/6072/4995	9550/7950/6600	
External static pressure(Min/Std/Max)	Pa	50/200/280	50/200/280	50/200/280	50/200/280	50/200/280	50/200/280	
Sound pressure level(H/M/L)	dB(A)	59/55/52	59/55/52	59/55/52	61/59/56	61/59/56	63/60/57	
Net dimension(WxHxD)	mm	1440x505x925	1440x505x925	1440x505x925	1970x668x902.5	1970x668x902.5	1970x668x902.5	
Packing dimension(WxHxD)	mm	1509x550x990	1509x550x990	1509x550x990	2095x800x964	2095x800x964	2095x800x964	
Net/gross weight	kg	115/129	115/129	115/129	232/245	232/245	235/250	
Piping connections	Liquid/gas pipe	mm	Φ9.53x2/Φ15.9x2	Φ9.53x2/Φ15.9x2	Φ9.53x2/Φ15.9x2	Φ9.53x2/Φ22.2x2	Φ9.53x2/Φ22.2x2	
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32	OD Φ32	OD Φ32	
Standard controller	Wired controller							

### 60Hz AC fan motors

Model	MDV-D71T1/VN1-B	MDV-D80T1/VN1-B	MDV-D90T1/VN1-B	MDV-D112T1/VN1-B	MDV-D140T1/VN1-B	MDV-D160T1/VN1-B		
Power supply	1-phase,208-230V,60Hz							
Cooling capacity	kW	7.1	8	9	11.2	14	16	
	Btu/h	24200	27300	30700	38200	47800	54600	
Heating capacity	kW	8	9	10	12.5	16	16.5	
	Btu/h	27300	30700	34100	42700	54600	56300	
Power input	Cooling	W	414	402	409	409	527	532
	Heating	W	414	402	409	409	527	532
Airflow rate(H/M/L)	m <sup>3</sup> /h	1720/1532/1338	1690/1560/1320	2252/2030/1610	2198/1978/1570	2969/2694/2469	2969/2694/2469	
	CFM	1012/902/788	994/918/777	1326/1195/948	1294/1164/924	1746/1586/1453	1746/1586/1453	
External static pressure(Min/Std/Max)	Pa	25/25/196	37/37/196	37/37/196	50/50/196	50/50/196	50/50/196	
Sound pressure level(H/M/L)	dB(A)	48/46/44.5	48/46/44.5	52/49/47	52/49/47	53/50/48	54/52/50	
Net dimension(WxHxD)	mm(in.)	952x420x690(37-31/64x16-17/32x27-11/64)				1300x420x691(51-3/16x15-3/4x27-13/64)		
Packing dimension(WxHxD)	mm(in.)	1090x440x768(42-29/32x17-21/64x30-15/64)				1436x450x768(56-17/32x17-23/32x30-15/64)		
Net/gross weight	kg(lbs.)	46.5/52(102.6/114.7)		50/56.5(110.3/124.6)		68/70(149.9/154.3)		
Piping connections	Liquid/gas pipe	mm(in.) Φ9.53/Φ15.9(Φ3/8/Φ5/8)						
	Drain piping	mm(in.) Φ25(OD 63/64)						
Standard controller	Wired controller							

Notes:

- Nominal capacities are based on the following conditions:
  - Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
  - Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.
- External static pressure is based on high speed indoor airflow.

Model	MDV-D200T1/N1-B	MDV-D250T1/N1-B	MDV-D280T1/N1-B	MDV-D400T1/N1	MDV-D450T1/N1		
Power supply	1-phase,208-230V,60Hz						
Cooling capacity	kW	20.0	25.0	28.0	40.0	45.0	
	Btu/h	68200	85300	95500	136500	153500	
Heating capacity	kW	22.5	26.0	31.5	45.0	50.0	
	Btu/h	76800	88700	107500	153500	170600	
Power input	Cooling	W	1516	1516	1516	1600	1600
	Heating	W	1516	1516	1516	1600	1600
Airflow rate(H/M/L)	m <sup>3</sup> /h	4700/4100/3599	4700/4100/3599	4700/4100/3599	7180/6150/4600	7180/6150/4600	
	CFM	2766/2413/2118	2766/2413/2118	2766/2413/2118	4226/3620/2708	4226/3620/2708	
External static pressure(Min/Std/Max)	Pa	50/200/280	50/200/280	50/200/280	50/200/280	50/200/280	
Sound pressure level(H/M/L)	dB(A)	59/55/52	59/55/52	59/55/52	61/59/56	61/59/56	
Net dimension(WxHxD)	mm(in.)	1440x505x925(56-11/16x19-7/8x36-27/6)			1970x668x902.5(77-9/16x15-3/4x35-17/32)		
Packing dimension(WxHxD)	mm(in.)	1509x550x990(59-13/32x21-21/32x38-31/32)			2095x800x964(82-31/64x31-1/2x37-61/64)		
Net/gross weight	kg(lbs.)	115/129(254/284)			235/250(518/551)		
Piping connections	Liquid/gas pipe	mm(in.) Φ9.53/Φ15.9x2/(Φ3/8/Φ5/8)x2			Φ9.53/Φ22.2x2/(Φ3/8/Φ7/8)x2		
	Drain piping	mm(in.) Φ32(OD 1-17/64)					
Standard controller	Wired controller						

### DC fan motors

Model	MI-71T1/DHN1-B	MI-80T1/DHN1-B	MI-90T1/DHN1-B	MI-112T1/DHN1-B	MI-140T1/DHN1-B	MI-160T1/DHN1-B		
Power supply	1-phase,220-240V,50/60Hz							
Capacity	Cooling	kW	7.1	8.0	9.0	11.2	14.0	16.0
	Heating	kW	8.0	9.0	10.0	12.5	16.0	17.0
Power input	Cooling	W	180	180	220	380	420	700
	Heating	W	180	180	220	380	420	700
Airflow rate(H/M/L)	m <sup>3</sup> /h	1500/1390/1250	1450/1340/1190	1780/1650/1530	2080/1930/1710	2860/2440/2010	3400/2660/2400	
External static pressure(Min/Std/Max)	Pa	0/25/196	0/37/196	0/37/196	0/37/196	0/50/196	0/50/196	
Sound pressure level(H/M/L)	dB(A)	46/44/42	46/44/42	50/47/45	50/47/45	53/50/48	54/52/50	
Sound power level(H/M/L)	dB(A)	57/56/55	57/56/55	61/59/58	61/59/58	64/62/61	65/64/63	
Net dimension(WxHxD)	mm	952x420x690	952x420x690	952x420x690	952x420x690	1300x420x690	1300x420x690	
Packing dimension(WxHxD)	mm	1090x440x768	1090x440x768	1090x440x768	1090x440x768	1436x450x768	1436x450x768	
Net/gross weight	kg	41/47	41/47	47/53	47/53	68/70	70/77.5	
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wired controller							

Model	MI-200T1/DHN1-B	MI-250T1/DHN1-B	MI-280T1/DHN1-B		
Power supply	1-phase,220-240V,50/60Hz				
Capacity	Cooling	kW	20.0	25.0	28.0
	Heating	kW	22.5	26.0	31.5
Power input	Cooling	W	800	800	800
	Heating	W	800	800	800
Airflow rate(H/M/L)	m <sup>3</sup> /h	4820/4660/4620	4870/4760/4690	4870/4760/4690	
External static pressure(Min/Std/Max)	Pa	40/62/200	40/62/200	40/62/200	
Sound pressure level(H/M/L)	dB(A)	57/53/50	57/53/50	57/53/50	
Sound power level(H/M/L)	dB(A)	68/65/63	68/65/63	68/65/63	
Net dimension(WxHxD)	mm	1440x505x925	1440x505x925	1440x505x925	
Packing dimension(WxHxD)	mm	1509x550x990	1509x550x990	1509x550x990	
Net/gross weight	kg	108/120	108/120	108/120	
Piping connections	Liquid/gas pipe	mm	Φ9.53x2/Φ15.9x2	Φ9.53x2/Φ15.9x2	Φ9.53x2/Φ15.9x2
	Drain pipe	mm	OD Φ32	OD Φ32	OD Φ32
Standard controller	Wired controller				

Notes:

- Nominal capacities are based on the following conditions:
  - Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
  - Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.
- External static pressure is based on high speed indoor airflow.

## Fresh Air Processing Unit

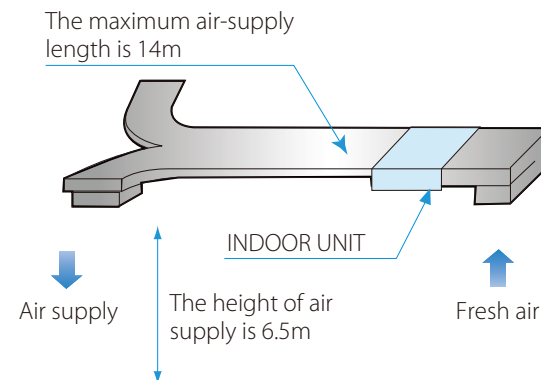
### Fan Motor Options >>

Choose either AC or DC fan motors.

### 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.



### Flexible Duct Design >>

The Fresh Air Processing unit offers external static pressures of up to 196Pa (models 125 to 140) or 280Pa (models 200 to 280), allowing air supply duct lengths of up to 14m at a height of 6.5m.

### The Comfort of Fresh Air >>

Enjoy the comfort and health benefits of fresh air being drawn into your working or living environment.



## Specifications

### 50Hz AC fan motors

Model	MDV-D125T1/N1-FA	MDV-D140T1/N1-FA	MDV-D200T1/N1-FA	MDV-D250T1/N1-FA	MDV-D280T1/N1-FA		
Power supply	1-phase,220-240V,50Hz						
Capacity	Cooling	kW	12.5	14.0	20.0	25.0	28.0
	Heating	kW	10.5	12.0	18.0	20.0	22.0
Power input	Cooling	W	430	430	1000×2	1063×2	1063×2
	Heating	W	430	430	1000×2	1063×2	1063×2
Airflow rate(H/M/L)	m <sup>3</sup> /h	2142/1870/1611	2142/1870/1611	2870/2620/2150	3005/2700/2250	3005/2700/2250	
External static pressure(Min/Std/Max)	Pa	30/50/196	30/50/196	50/200/280	50/200/280	50/200/280	
Sound pressure level(H/M/L)	dB(A)	54/52/50	54/52/50	54/53/51	55/54/52	55/54/52	
Net dimension(WxHxD)	mm	1300×420×690	1300×420×690	1440×505×925	1440×505×925	1440×505×925	
Packing dimension(WxHxD)	mm	1436×450×768	1436×450×768	1509×550×990	1509×550×990	1509×550×990	
Net/gross weight	kg	69.5/76	69.5/76	115/125	115/125	115/125	
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ32	OD Φ32	
Operation temperature range	°C	Heating: -5~16; Fan only: 16~20; Cooling: 20~43					
Standard controller		Wired controller					

### 60Hz AC fan motors

Model	MDV-D125T1/VN1-FA	MDV-D140T1/VN1-FA	MDV-D200T1/VN1-FA	MDV-D250T1/VN1-FA	MDV-D280T1/VN1-FA		
Power supply	1-phase,208-230V,60Hz						
Cooling capacity	kW	12.5	14.0	20.0	25.0	28.0	
	Btu/h	42600	47800	68200	85300	95500	
Heating capacity	kW	10.5	12.0	18.0	20.0	22.0	
	Btu/h	36000	41000	61400	68200	75000	
Power input	Cooling	W	430	430	1000×2	1063×2	1063×2
	Heating	W	430	430	1000×2	1063×2	1063×2
Airflow rate(H/M/L)	m <sup>3</sup> /h	2142/1870/1611	2142/1870/1611	2870/2620/2150	3005/2700/2250	3005/2700/2250	
	CFM	1261/1101/948	1261/1101/948	1689/1542/1265	1766/1589/1324	1766/1589/1324	
External static pressure(Min/Std/Max)	Pa	30/50/196	30/50/196	50/200/280	50/200/280	50/200/280	
Sound pressure level(H/M/L)	dB(A)	54/52/50	53/50/48	54/53/51	55/54/52	55/54/52	
Net dimension(WxHxD)	mm(in.)	1300×420×690(51-3/16×16-17/32×27-1/16)			1440×505×925(56-11/16×19-7/8×36-27/6)		
Packing dimension(WxHxD)	mm(in.)	1436×450×768(56-17/32×17-23/32×30-1/4)			1509×550×990(59-13/32×21-21/32×38-31/32)		
Net/gross weight	kg(lbs.)	69.5/76(153.2/167.5)			114/124(251/274)		
Piping connections	Liquid/gas pipe	mm(in.)	Φ9.53/Φ15.9(Φ3/8/Φ5/8)				
	Drain piping	mm(in.)	Φ25(OD 63/64)	Φ32(OD 1-17/64)			
Standard controller		Wired controller					

### DC fan motors

Model	MI-125T1/DHN1-FA	MI-140T1/DHN1-FA	MI-200T1/DHN1-FA	MI-250T1/DHN1-FA	MI-280T1/DHN1-FA		
Power supply	1-phase,220-240V,50/60Hz						
Capacity	Cooling	kW	12.5	14.0	20.0	25.0	28.0
	Heating	kW	10.5	12.0	18.0	20.0	22.0
Power input	Cooling	W	370	370	615	670	670
	Heating	W	370	370	615	670	670
Airflow rate(H/M/L)	m <sup>3</sup> /h	2440/2000/1470	2440/2000/1470	3860/3430/2890	3860/3430/2890	3860/3430/2890	
External static pressure(Min/Std/Max)	Pa	0/50/200	0/50/200	0/62/200	0/62/200	0/62/200	
Sound pressure level(H/M/L)	dB(A)	52/50/48	52/50/48	52/51/49	53/52/50	53/52/50	
Sound power level(H/M/L)	dB(A)	63/62/61	63/62/61	63/62/61	64/63/62	64/63/62	
Net dimension(WxHxD)	mm	1300×420×690	1300×420×690	1440×505×925	1440×505×925	1440×505×925	
Packing dimension(WxHxD)	mm	1436×450×768	1436×450×768	1509×550×990	1509×550×990	1509×550×990	
Net/gross weight	kg	63/71	63/71	108/120	108/120	108/120	
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ32	OD Φ32	
Operation temperature range	°C	Heating: -5~16; Fan only: 16~20; Cooling: 20~43					
Standard controller		Wired controller					

Notes:

1. Nominal capacities are based on the following conditions:

- Cooling: outdoor temperature 33°C (91.4°F) DB, 24°C (75.2°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.

- Heating: outdoor temperature 0°C (32°F) DB, -1°C (30.2°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.

2. Sound pressure level is measured 1.4m (4.59ft) below the unit in a semi-anechoic chamber.

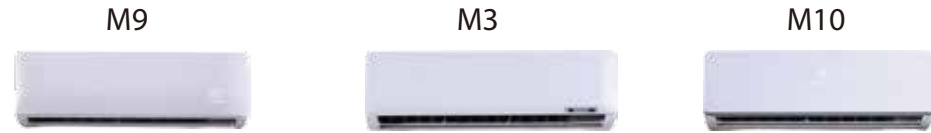
3. External static pressure is based on high speed indoor airflow.

4. 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 Fresh Air Processing Units must not exceed 30% of that of the outdoor units.



# Wall-mounted

## M Series



## S Series

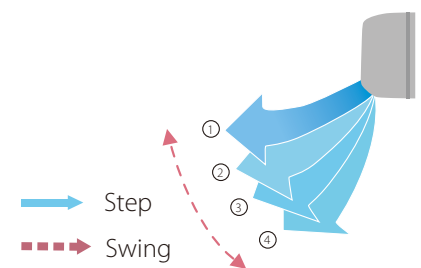


### Multiple Options >>

Three different series of Wall-mounted indoor units can be selected based on room decor requirements and user preference: M Series, S Series and R Series. The elegant new M Series units enhance the aesthetics of any room and are suitable for a wide variety of installation space situations. Interchangeable panels (M3, M9 and M10) add extra flexibility to a universal body design.

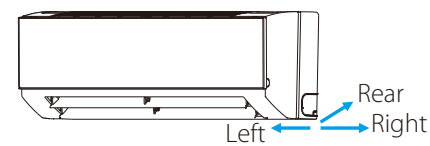
### Auto Swing Louver >>

Multiple louver positions and the auto swing ensure precise and flexible airflow control.



### Optimal Comfort Through Better Flow Control >>

A 2000-stage element mechanical expansion valve ensures precise flow control whilst generating little modulation noise. A multi-blade fan coupled with a dual-blade air guide smooth output airflow and three fan speeds provide flexibility to respond to users' particular comfort requirements.



### High Efficiency, Low Sound Level >>

Advanced brushless DC fan motors in M Series units operate highly efficiently without generating excessive noise, saving energy at the same time as providing a low-noise work or living space.

### Fan Motor Options >>

Choose either AC or DC fan motors.

### Flexibility >>

To increase installation flexibility, the expansion valve is fitted internally, increasing compactness, and the refrigerant outlet direction can be left, right or rear as the installation situation requires. A new fixing plate design speeds installation and provides extra stability.

## Specifications

### M Series (DC fan motors)

Model			MI-22G/DHN1-M	MI-28G/DHN1-M	MI-36G/DHN1-M	MI-45G/DHN1-M
Power supply			1-phase,220-240V,50/60Hz			
Capacity	Cooling	kW	2.2	2.8	3.6	4.5
	Heating	kW	2.4	3.2	4	5
Power input	Cooling	W	8	9	19	19
	Heating	W	8	9	19	19
Airflow rate (H/M/L)	m <sup>3</sup> /h		422/393/356	417/370/316	656/573/488	594/507/424
Sound pressure level (H/M/L)	dB(A)		31/30/29	31/30/29	33/32/30	35/33/31
Net dimension (WxHxD)	mm		835x280x203	835x280x203	990x315x223	990x315x223
Packing dimension (WxHxD)	mm		935x385x320	935x385x320	1085x420x335	1085x420x335
Net/ Gross weight	kg		8.4/12.1	9.5/13.1	11.4/15.5	12.8/16.9
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7			
	Drain pipe	mm	OD Φ16.5			
Standard controller			Wireless remote controller			

Model			MI-56G/DHN1-M	MI-71G/DHN1-M	MI-80G/DHN1-M	MI-90G/DHN1-M
Power supply			1-phase,220-240V,50/60Hz			
Capacity	Cooling	kW	5.6	7.1	8	9
	Heating	kW	6.3	8	9	10
Power input	Cooling	W	27	49	53	82
	Heating	W	27	49	53	80
Airflow rate (H/M/L)	m <sup>3</sup> /h		747/648/547	1195/1005/809	1195/1005/809	1421/1067/867
Sound pressure level (H/M/L)	dB(A)		38/36/34	44/39/36	44/39/36	48/43/38
Dimension (WxHxD)	mm		990x315x223	1194x343x262	1194x343x262	1194x343x262
Packing (WxHxD)	mm		1085x420x335	1290x375x460	1290x375x460	1290x375x460
Net/ Gross weight	kg		12.8/16.9	17/22.4	17/22.4	17/22.4
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ16.5			
Standard controller			Wireless remote controller			

### S Series (50Hz AC fan motors)

Model			MDV-D22G/N1-S	MDV-D28G/N1-S	MDV-D36G/N1-S	MDV-D45G/N1-S	MDV-D56G/N1-S
Power supply			1-phase,220-240V,50Hz				
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating	kW	2.4	3.2	4	5	6.3
Power input	Cooling	W	28	28	28	45	45
	Heating	W	28	28	28	45	45
Airflow rate(H/M/L)	m <sup>3</sup> /h		525/480/430	525/480/430	590/520/480	860/755/630	925/860/755
Sound pressure level(H/M/L)	dB(A)		35/32/29	35/32/29	35/32/29	40/38/34	40/38/34
Net dimension(WxHxD)	mm		915x290x230	915x290x230	915x290x230	1072x315x230	1072x315x230
Packing dimension(WxHxD)	mm		1020x390x315	1020x390x315	1020x390x315	1180x415x315	1180x415x315
Net/gross weight	kg		13/16.8	13/16.8	13/16.8	15.1/19.5	15.1/19.5
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ16.5	OD Φ16.5	OD Φ16.5	OD Φ16.5	OD Φ16.5
Standard controller			Wireless remote controller				

## S Series (60Hz AC fan motors)

Model		MDV-D22G/N1-S	MDV-D28G/N1-S	MDV-D36G/N1-S	MDV-D45G/N1-S	MDV-D56G/N1-S
Power supply		1-phase, 220-240V, 60Hz				
Cooling capacity	kW	2.2	2.8	3.6	4.5	5.6
	Btu/h	7500	9600	12300	15400	19100
Heating capacity	kW	2.4	3.2	4.0	5.0	6.3
	Btu/h	8200	10900	13600	17100	21500
Power input	Cooling	W	28	28	28	51
	Heating	W	28	28	28	51
Airflow rate(H/M/L)	m³/h	525/480/430	525/480/430	590/520/480	860/755/630	925/860/755
	CFM	309/283/253	309/283/253	347/306/283	506/444/371	544/506/444
Sound pressure level(H/M/L)	dB(A)	35/32/29	35/32/29	35/32/29	40/38/34	40/38/34
Net dimension(WxHxD)	mm(in.)	915x290x230(36-1/32x11-13/32x9-1/16)			1072x315x230(42-7/32x12-13/32x9-1/16)	
Packing dimension(WxHxD)	mm(in.)	1020x390x315(40-5/32x15-11/32x12-13/32)			1180x415x315(46-15/32x16-11/32x12-13/32)	
Net/gross weight	kg(lbs.)	13/16.8(28.7/37.1)			15.1/19.5(33.4/43)	
Piping connections	Liquid/gas pipe	mm(in.) $\Phi 6.35/\Phi 12.7(\Phi 1/4/\Phi 1/2)$				$\Phi 9.53/\Phi 15.9(\Phi 3/8/\Phi 5/8)$
	Drain piping	mm(in.) $\Phi 16.5(\text{OD } 21/32)$				
Standard controller		Wireless remote controller				

## S Series (DC fan motors)

Model		MI-22G/DHN1-S	MI-28G/DHN1-S	MI-36G/DHN1-S	MI-45G/DHN1-S	MI-56G/DHN1-S
Power supply		1-phase, 220-240V, 50/60Hz				
Capacity	Cooling	kW	2.2	2.8	3.6	4.5
	Heating	kW	2.4	3.2	4	5
Power input	Cooling	W	19	19	22	26
	Heating	W	19	19	22	26
Airflow rate(H/M/L)	m³/h	505/462/417	505/462/417	564/499/460	841/705/577	915/840/708
Sound pressure level(H/M/L)	dB(A)	31/30/29	31/30/29	31/30/29	38/36/34	45/38/34
Sound power level(H/M/L)	dB(A)	42/41/40	42/41/40	42/41/40	49/48/47	56/50/47
Net dimension(WxHxD)	mm	915x290x230	915x290x230	915x290x230	1072x315x230	1072x315x230
Packing dimension(WxHxD)	mm	1020x390x315	1020x390x315	1020x390x315	1180x415x315	1180x415x315
Net/gross weight	kg	12.0/15.6	12.0/15.6	12.0/15.6	14.4/18.4	14.4/18.4
Piping connections	Liquid/gas pipe	mm	$\Phi 6.35/\Phi 12.7$	$\Phi 6.35/\Phi 12.7$	$\Phi 6.35/\Phi 12.7$	$\Phi 6.35/\Phi 12.7$
	Drain pipe	mm	OD $\Phi 16.5$	OD $\Phi 16.5$	OD $\Phi 16.5$	OD $\Phi 16.5$
Standard controller		Wireless remote controller				

Notes:

- Nominal capacities are based on the following conditions:
  - Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
  - Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Sound pressure level is measured at a position 1m (3.28ft) in front and 1m (3.28ft) below the unit in a semi-anechoic chamber.

## Ceiling & Floor

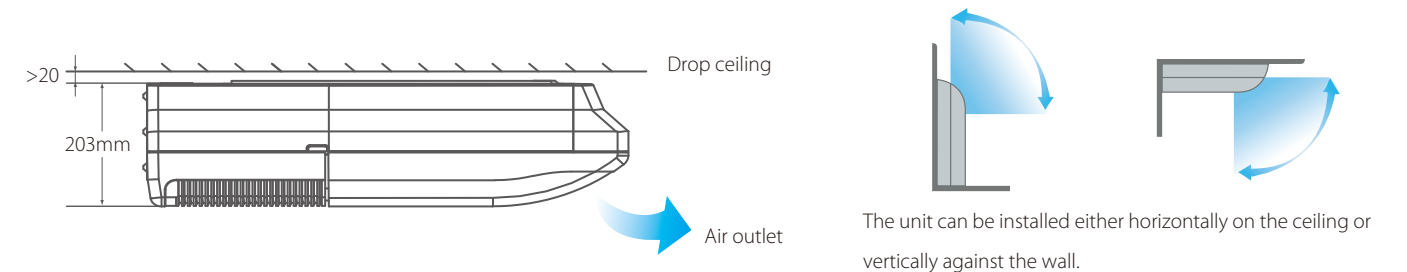


### Fan Motor Options >>

Choose either AC or DC fan motors.

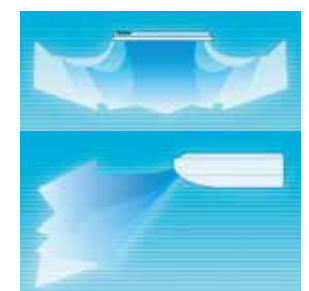
### Flexibility >>

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



### Wide-Angle Swing >>

A wide-angle swing together with bi-directional louver swing allows the positioning of the unit to be selected to suit the room's decor, whilst ensuring that full-room cooling and heating coverage is achieved.



Wide-angle swing

### Increased Comfort >>

Sound levels as low as 36dB(A) are achieved using electronic expansion valves which ensure precise flow control whilst generating little modulation noise. A multi-blade fan coupled with a dual-louver air guide smooth output airflow.

## Specifications

### 50Hz AC fan motors

Model	MDV-D36DL/N1-C	MDV-D45DL/N1-C	MDV-D56DL/N1-C	MDV-D71DL/N1-C	MDV-D80DL/N1-C		
Power supply	1-phase,220-240V,50Hz						
Capacity	Cooling	kW	3.6	4.5	5.6	7.1	8.0
	Heating	kW	4.0	5.0	6.3	8.0	9.0
Power input	Cooling	W	49	120	122	125	130
	Heating	W	49	120	122	125	130
Airflow rate(H/M/L)	m <sup>3</sup> /h	650/570/500	800/600/500	800/600/500	800/600/500	1,200/900/700	
Sound pressure level(H/M/L)	dB(A)	40/38/36	43/41/38	43/41/38	43/41/38	45/43/40	
Net dimension(WxHxD)	mm	990x203x660	990x203x660	990x203x660	990x203x660	1280x203x660	
Packing dimension(WxHxD)	mm	1089x296x744	1089x296x744	1089x296x744	1089x296x744	1379x296x744	
Net/gross weight	kg	26/32	28/34	28/34	28/34	34.5/41	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller	Wireless remote controller						

Model	MDV-D90DL/N1-C	MDV-D112DL/N1-C	MDV-D140DL/N1-C	MDV-D160DL/N1-C		
Power supply	1-phase,220-240V,50Hz					
Capacity	Cooling	kW	9.0	11.2	14.0	16.0
	Heating	kW	10.0	12.5	15.0	18.0
Power input	Cooling	W	130	182	182	300
	Heating	W	130	182	182	300
Airflow rate(H/M/L)	m <sup>3</sup> /h	1200/900/700	1980/1860/1730	1980/1860/1730	1980/1860/1730	
Sound pressure level(H/M/L)	dB(A)	45/43/40	47/45/42	47/45/42	47/45/42	
Net dimension(WxHxD)	mm	1280x203x660	1670x244x680	1670x244x680	1670x285x680	
Packing dimension(WxHxD)	mm	1379x296x744	1764x329x760	1764x329x760	1775x377x760	
Net/gross weight	kg	34.5/41	54/59	54/59	57.5/63.5	
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller	Wireless remote controller					

### 60Hz AC fan motors

Model	MDV-D36DL/N1-C	MDV-D45DL/N1-C	MDV-D56DL/N1-C	MDV-D71DL/N1-C		
Power supply	1-phase, 220-240V, 60Hz					
Cooling capacity	kW	3.6	4.5	5.6	7.1	
	Btu/h	12300	15400	19100	24200	
Heating capacity	kW	4.0	5.0	6.3	8.0	
	Btu/h	13600	17100	21500	27300	
Power input	Cooling	W	50	148	148	148
	Heating	W	50	148	148	148
Airflow rate(H/M/L)	m <sup>3</sup> /h	600/480/400	750/650/550	750/650/550	750/650/550	
	CFM	353/283/235	441/383/324	441/383/324	441/383/324	
Sound pressure level(H/M/L)	dB(A)	40/38/36	43/41/38	43/41/38	43/41/38	
Net dimension(WxHxD)	mm(in.)	990x203x660(38-31/32x7-63/64x25-63/64)				
Packing dimension(WxHxD)	mm(in.)	1089x296x744(42-7/8x11-21/32x29-9/32)				
Net/gross weight	kg(lbs.)	26/32(57.3/70.6)	28/34(61.7/75.0)	28/34(61.7/75.0)	28/34(61.7/75.0)	
Piping connections	Liquid/gas pipe	mm(in.)	Φ6.35/Φ12.7(Φ1/4/Φ1/2)		Φ9.53/Φ15.9(Φ3/8/Φ5/8)	
	Drain piping	mm(in.)	Φ25(OD 63/64)			
Standard controller	Wireless remote controller					

Model	MDV-D80DL/N1-C	MDV-D90DL/N1-C	MDV-D112DL/N1-C	MDV-D140DL/N1-C	MDV-D160DL/N1-C		
Power supply	1-phase, 220-240V, 60Hz						
Cooling capacity	kW	8.0	9.0	11.2	14.0	16.0	
	Btu/h	27300	30700	38200	47800	54600	
Heating capacity	kW	9.0	10.0	12.5	15.0	18.0	
	Btu/h	30700	34100	42700	51200	61400	
Power input	Cooling	W	183	183	245	245	378
	Heating	W	183	183	245	245	378
Airflow rate(H/M/L)	m <sup>3</sup> /h	1,200/900/700	1,200/900/700	1,980/1,860/1,730	1,980/1,860/1,730	2,300/2,100/1,800	
	CFM	706/530/412	706/530/412	1,165/1,095/1,018	1,165/1,095/1,018	1,354/1,236/1,060	
Sound pressure level(H/M/L)	dB(A)	45/43/40	45/43/40	47/45/42	47/45/42	47/45/42	
Net dimension(WxHxD)	mm(in.)	1280x203x660(50-25/64x7-63/64x25-63/64)		1670x244x680(65-3/4x9-39/64x26-49/64)		1670x285x680(65-3/4x11-7/32x26-49/64)	
Packing dimension(WxHxD)	mm(in.)	1379x296x744(54-19/64x11-21/32x29-19/64)		1764x329x760(69-29/64x12-61/64x29-59/64)		1775x377x760(69-7/8x14-27/32x29-59/64)	
Net/gross weight	kg(lbs.)	34.5/41(76.1/90.4)		54/59(119.0/130.1)		57.5/63.5(126.5/139.7)	
Piping connections	Liquid/gas pipe	mm(in.)				Φ9.53/Φ15.9(Φ3/8/Φ5/8)	
	Drain piping	mm(in.)				Φ25(OD 63/64)	
Standard controller	Wireless remote controller						

### DC fan motors

Model	MI-36DL/DHN1-C	MI-45DL/DHN1-C	MI-56DL/DHN1-C	MI-71DL/DHN1-C		
Power supply	1-phase,220-240V,50/60Hz					
Capacity	Cooling	kW	3.6	4.5	5.6	7.1
	Heating	kW	4.0	5.0	6.3	8.0
Power input	Cooling	W	23	94	94	94
	Heating	W	23	94	94	94
Airflow rate(H/M/L)	m <sup>3</sup> /h	550/480/420	930/830/720	930/830/720	930/830/720	
Sound pressure level(H/M/L)	dB(A)	40/38/36	43/41/38	43/41/38	43/41/38	
Sound power level(H/M/L)	dB(A)	51/50/49	54/53/51	54/53/51	54/53/51	
Net dimension(WxHxD)	mm	990x203x660	990x203x660	990x203x660	990x203x660	
Packing dimension(WxHxD)	mm	1089x296x744	1089x296x744	1089x296x744	1089x296x744	
Net/gross weight	kg	25/31	27/33	27/33	27/33	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller	Wireless remote controller					

Model	MI-80DL/DHN1-C	MI-90DL/DHN1-C	MI-112DL/DHN1-C	MI-140DL/DHN1-C		
Power supply	1-phase,220-240V,50/60Hz					
Capacity	Cooling	kW	8.0	9.0	11.2	14.0
	Heating	kW	9.0	10.0	12.5	15.0
Power input	Cooling	W	126	126	65x2	65x2
	Heating	W	126	126	65x2	65x2
Airflow rate(H/M/L)	m <sup>3</sup> /h	1280/1170/1050	1280/1170/1050	1890/1700/1580	1890/1700/1580	
Sound pressure level(H/M/L)	dB(A)	45/43/40	45/43/40	47/45/42	47/45/42	
Sound power level(H/M/L)	dB(A)	56/55/53	56/55/53	58/56/55	58/56/55	
Net dimension(WxHxD)	mm	1280x203x660	1280x203x660	1670x244x680	1670x244x680	
Packing dimension(WxHxD)	mm	1379x296x744	1379x296x744	1764x329x760	1764x329x760	
Net/gross weight	kg	33.5/40	33.5/40	49/57	49/57	
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25
Standard controller	Wireless remote controller					

#### Notes:

1. Nominal capacities are based on the following conditions:

- Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft) with zero level difference.
- Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft) with zero level difference.

2. Floor standing: Sound pressure level is measured at a position 1m (3.28ft) in front the unit and 1m (3.28ft) above the floor in a semi-anechoic chamber.

Ceiling mounted: Sound pressure level is measured at a position 1m (3.28ft) in front and 1m (3.28ft) below the unit in a semi-anechoic chamber.



# Floor Standing



- Auto Restart Function
- Follow Me
- Anti-cold Air Function
- Auto Addressing
- Auto Defrosting
- Independent Dehumidification
- Timer
- Wired Controller

## Fan Motor Options >>

Choose either AC or DC fan motors.

## Flexibility >>

The Floor Standing indoor unit can be installed on the floor or, for easier floor cleaning, hung on the wall with piping running from the rear. The streamlined appearance complements any room's decor.

## Casing Options >>

At just 212mm deep, the F3B concealed floor standing unit can be installed around the perimeter of a room, hidden behind the skirting board, and special installation methods can be used to eliminate noise from the room space. The F4 (front air intake) and F5 (underside air intake) offer a choice of air intake options.



## Specifications

### 50Hz AC fan motors

Model	MDV-D22Z/N1-F3B	MDV-D28Z/N1-F3B	MDV-D36Z/N1-F3B	MDV-D45Z/N1-F3B	MDV-D56Z/N1-F3B	MDV-D71Z/N1-F3B	MDV-D80Z/N1-F3B		
Power supply	1-phase,220-240V,50Hz								
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0
	Heating	kW	2.4	3.2	4.0	5.0	6.3	8.0	9.0
Power input	Cooling	W	40	46	46	49	88	130	130
	Heating	W	40	46	46	49	88	130	130
Airflow rate(H/M/L)	m <sup>3</sup> /h	530/456/400	569/485/421	624/522/375	660/542/440	1,150/970/830	1,380/1,100/870	1,380/1,100/870	
Sound pressure level(H/M/L)	dB(A)	36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	44/39/33	
Net dimension(WxHxD)	F4	mm	840x545x212	840x545x212	1040x545x212	1040x545x212	1340x545x212	1340x545x212	
	F5	mm	840x545x212	840x545x212	1040x545x212	1040x545x212	1340x545x212	1340x545x212	
Packing dimension(WxHxD)	F4	mm	939x639x305	939x639x305	1139x639x305	1139x639x305	1425x639x305	1425x639x305	
	F5	mm	939x639x305	939x639x305	1139x639x305	1139x639x305	1425x639x305	1425x639x305	
Net/gross weight	F4	kg	25/27	25/27	29.5/34	29.5/34	33/39	33/39	
	F5	kg	25/27	25/27	29.5/34	29.5/34	33/39	36/40	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wireless remote controller								

Model	MDV-D22Z/N1-F4	MDV-D28Z/N1-F4	MDV-D36Z/N1-F4	MDV-D45Z/N1-F4	MDV-D56Z/N1-F4	MDV-D71Z/N1-F4	MDV-D80Z/N1-F4		
Model	MDV-D22Z/N1-F5	MDV-D28Z/N1-F5	MDV-D36Z/N1-F5	MDV-D45Z/N1-F5	MDV-D56Z/N1-F5	MDV-D71Z/N1-F5	MDV-D80Z/N1-F5		
Power supply	1-phase,220-240V,50Hz								
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0
	Heating	kW	2.4	3.2	4.0	5.0	6.3	8.0	9.0
Power input	Cooling	W	40	46	46	49	88	130	130
	Heating	W	40	46	46	49	88	130	130
Airflow rate(H/M/L)	m <sup>3</sup> /h	530/456/400	569/485/421	624/522/375	660/542/440	1,150/970/830	1,380/1,100/870	1,380/1,100/870	
Sound pressure level(H/M/L)	F4	dB(A)	36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	
	F5	dB(A)	36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	
Net dimension(WxHxD)	F4	mm	1000x596x225	1000x596x225	1200x596x225	1200x596x225	1500x596x225	1500x596x225	
	F5	mm	1000x677x220	1000x677x220	1200x677x220	1200x677x220	1500x677x220	1500x677x220	
Packing dimension(WxHxD)	F4	mm	1089x683x312	1089x683x312	1289x683x312	1289x683x312	1589x683x312	1589x683x312	
	F5	mm	1182x683x312	1182x683x312	1382x683x312	1382x683x312	1682x683x312	1682x683x312	
Net/gross weight	F4	kg	30/35	30/35	36/44	36/44	41/46.5	41/46.5	
	F5	kg	30/38	30/38	35.5/41	35.5/41	42/51	42/51	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wireless remote controller								

### DC fan motors

Model	MI-22Z/DHN1-F3B	MI-28Z/DHN1-F3B	MI-36Z/DHN1-F3B	MI-45Z/DHN1-F3B	MI-56Z/DHN1-F3B	MI-71Z/DHN1-F3B	MI-80Z/DHN1-F3B		
Power supply	1-phase,220-240V,50/60Hz								
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0
	Heating	kW	2.4	3.2	4.0	5.0	6.3	8.0	9.0
Power input	Cooling	W	24	24	21	24	38	62	62
	Heating	W	23	24	19	24	41	65	63
Airflow rate(H/M/L)	m <sup>3</sup> /h	530/456/400	569/485/421	624/522/375	660/542/440	1150/970/830	1380/1100/870	1380/1100/870	
Sound pressure level(H/M/L)	dB(A)	36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	44/39/33	
Sound power level(H/M/L)	dB(A)	47/45/42	47/45/42	48/46/43	48/46/43	52/47/44	55/51/46	55/51/46	
Net dimension(WxHxD)	mm	840x545x212	840x545x212	1040x545x212	1040x545x212	1340x545x212	1340x545x212	1340x545x212	
Packing dimension(WxHxD)	mm	939x639x305	939x639x305	1139x639x305	1139x639x305	1425x639x305	1425x639x305	1425x639x305	
Net/gross weight	kg	21/25	21/25	28/33	28/33	32/38	32/38	35/39	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wireless remote controller								

Model	MI-22Z/DHN1-F4	MI-28Z/DHN1-F4	MI-36Z/DHN1-F4	MI-45Z/DHN1-F4	MI-56Z/DHN1-F4	MI-71Z/DHN1-F4	MI-80Z/DHN1-F4		
Model	MI-22Z/DHN1-F5	MI-28Z/DHN1-F5	MI-36Z/DHN1-F5	MI-45Z/DHN1-F5	MI-56Z/DHN1-F5	MI-71Z/DHN1-F5	MI-80Z/DHN1-F5		
Power supply	1-phase,220-240V,50/60Hz								
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1	8.0
	Heating	kW	2.4	3.2	4.0	5.0	6.3	8.0	9.0
Power input	Cooling	W	24	24	21	24	38	62	62
	Heating	W	23	24	19	24	41	65	63
Airflow rate(H/M/L)	m <sup>3</sup> /h	530/456/400	569/485/421	624/522/375	660/542/440	1150/970/830	1380/1100/870	1380/1100/870	
Sound pressure level(H/M/L)	F4	dB(A)	36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	
	F5	dB(A)	36/33/29	36/33/29	37/34/30	37/34/30	41/35/31	44/39/33	
Sound power level(H/M/L)	F4	dB(A)	47/45/42	47/45/42	48/46/43	48/46/43	52/47/44	55/51/46	
	F5	dB(A)	47/45/43	47/45/43	48/46/44	48/46/44	52/47/45	55/51/47	
Net dimension(WxHxD)	F4	mm	1000x596x225	1000x596x225	1200x596x225	1200x596x225	1500x596x225	1500x596x225	
	F5	mm	1000x677x220	1000x677x220	1200x677x220	1200x677x220	1500x677x220	1500x677x220	
Packing dimension(WxHxD)	F4	mm	1089x683x312	1089x683x312	1289x683x312	1289x683x312	1589x683x312	1589x683x312	
	F5	mm	1182x683x312	1182x683x312	1382x683x312	1382x683x312	1682x683x312	1682x683x312	
Net/gross weight	F4	kg	29/34	29/34	35/43	35/43	40/45.5	40/45.5	
	F5	kg	27.5/35.5	27.5/35.5	33/41.5	33/41.5	38.7/48	38.7/48	
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9	Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25	
Standard controller	Wireless remote controller								

Notes:

- Nominal capacities are based on the following conditions:
  - Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft) with zero level difference.
  - Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft) with zero level difference.
- The specifications of the F3B series are measured at 10Pa external static pressure and those of the F4 and F5 series at 0Pa external static pressure.
- Sound pressure level is measured at a position 1m (3.28ft) in front the unit and 1m (3.28ft) above the floor in a semi-anechoic chamber.

## Console



- Auto Restart Function
- Auto Addressing
- Timer
- Auto Defrosting
- Easy-cleaning Panel
- Follow Me
- Anti-cold Air Function
- Auto Swing
- LED Display
- Built-in Filter
- Independent Dehumidification
- Wired Controller

### Compact and Stylish >>

The elegant, space-saving design of the Console unit complements any room's decor. The expansion valve is installed inside the indoor unit for added compactness.

### High Comfort >>

A wide-angle swing together with auto swing louvers and five fan speed options ensure that airflow reaches every corner of the room. A 2000-stage element mechanical expansion valve ensures precise flow control whilst generating little modulation noise.

### Flexibility >>

The Console unit can be installed on the floor or lower part of the wall. Full capacity is still achieved even when the underside air inlet is unavailable.



### High-Efficiency Filter >>

Formaldehyde nemesis filter is fitted as standard and active-carbon and biological anti-virus filter are available as a customization option.

### 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.



### Low-noise Design >>

A five-speed fan allows airflow customization whilst maintaining low-noise, low power consumption operation.



Sound levels as low as 26dB(A)

### Specifications

Model			MDV-D22Z/DN1-B	MDV-D28Z/DN1-B	MDV-D36Z/DN1-B	MDV-D45Z/DN1-B
Power supply			1-phase, 220-240V, 50Hz			
Capacity	Cooling	kW	2.2	2.8	3.6	4.5
	Heating	kW	2.6	3.2	4.0	5.0
Power input	Cooling	W	20	25	25	45
	Heating	W	20	25	25	45
Airflow rate(H/M/L)		m <sup>3</sup> /h	430/345/229	510/430/229	510/430/229	660/512/400
Sound pressure level(H/M/L)		dB(A)	38/32/26	39/33/27	39/33/27	42/39/36
Net dimension(WxHxD)		mm	700x210x600	700x210x600	700x210x600	700x210x600
Packing dimension(WxHxD)		mm	810x305x710	810x305x710	810x305x710	810x305x710
Net/gross weight		kg	14/19	15/20	15/20	15/20
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7
	Drain pipe	mm	OD Φ16	OD Φ16	OD Φ16	OD Φ16
Standard controller			Wireless remote controller			

1. Nominal capacities are based on the following conditions:  
 - Cooling: indoor temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft) with zero level difference.  
 - Heating: indoor temperature 20°C (68.0°F) DB; outdoor temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft) with zero level difference.  
 2. Sound pressure level is measured at a position 1m (3.28ft) in front the unit and 1m (3.28ft) above the floor in a semi-anechoic chamber.



# » CONTROL SYSTEMS

## Wireless Remote Controllers

RM02  
RM05  
RM12

## Wired Controllers

KJR-29B  
KJR-90D  
KJR-86C  
KJR-12B  
KJR-120B  
KJR-120C  
KJR-27B

## Centralized Controllers and Monitors

CCM30  
MD-CCM03  
MD-CCM09  
KJR-90B  
MD-CCM02

## Network Control Software and Gateways

IMM Software & M-Interface  
Data Converter CCM15  
KNX Gateway MD-KNX  
BACnet Gateway MD-CCM08  
LonWorks Gateway LonGW64  
Modbus Gateway CCM-18A

## Accessories

Hotel Key Card Interface Module MD-NIM05/E  
Infrared Sensor Controller MD-NIM09  
3-Phase Protector  
Digital Power Meter  
Indoor Unit Group Controller KJR-150A  
Remote Alarm Controller KJR-32B  
Network Electricity Distribution Module MD-NIM10  
AHU Control Box  
Midea Outdoor Unit Diagnosis



## Wireless Remote Controllers



### Auto Mode >>

Auto mode automatically selects either cooling or heating mode based on the difference between the indoor temperature and the temperature setting.

Auto mode is only available for V4 Plus R Series, if it is used in heat pump system, the auto mode will only operate in cooling mode.

### Background Light >>

The background light allows users to operate the device in the dark. The device lights up when a button is pressed, and turns off when the selected operation is completed.

### Address Setting >>

In addition to the machine's auto addressing function, users can set the indoor unit's address on the wireless remote controller RM05/RM02.



### Follow Me >>

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

\* The follow me function is available on the RM02 remote controller.

## Features

Model name	RM02	RM05	RM12
Mode selection	●	●	●
Temperature setting	●	●	●
Fan speed control	●	●	●
Keyboard lock	●	●	●
Eco mode	●	●	—
Swing function	●	●	●
Air direction control	●	●	●
24hr timer	●	●	●
Clock display	—	●	●
Address setting	●	●	●
Follow me function	●	—	●
One-key 26°C	●	—	—
Background light	●	●	●

Notes:

- The ECO function needs to match with the corresponding indoor units.
- : available — : unavailable

## Specifications

Model	RM02	RM05	RM12
Dimensions (HxWxD)(mm)	150x60x15	150x65x20	170x48x20
Batteries	1.5V(LR03/AAA)×2		

## Wired Controllers



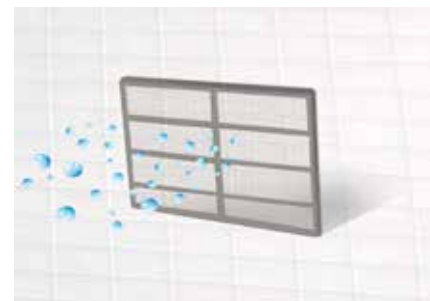
KJR-86C KJR-29B KJR-90D



- Auto mode
- Dry mode
- Heat mode
- Cool mode
- Fan mode
- 24h Timer
- Lock
- Clean filter reminder
- Address setting
- Follow Me
- Silent mode

### Clean Filter Reminder >>

The wired controller records the total running time of the indoor unit. When the accumulated running time reaches the value pre-set by the user, the system reminds the user to clean the indoor unit's filter, ensuring that the airflow does not become obstructed.



### Silent Mode >>

In cooling, heating and auto modes, selecting silent mode reduces the fan speed, lowering the running noise and creating a quieter environment.

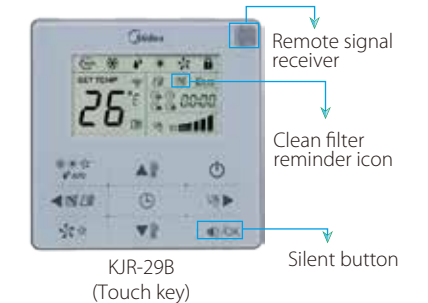


### Keyboard Lock >>

The lock function can be used to prevent other people from using the controller.

### Remote Signal Receiver >>

A signal receiver is incorporated into the KJR-29B and KJR-90D controllers, allowing the system status to be adjusted using a remote control.



### Address Setting >>

KJR-29 and KJR-90D have an address setting function. Service personnel can set the address for the indoor unit for easy installation and future maintenance.



### Follow Me >>

With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in to the wired controller, rather than the temperature sensor in the indoor unit itself, so that temperature is measured closer to the user, rather than at ceiling or floor height\*.

\* The follow me function is available on the KJR-29B and KJR-90D wired controllers.



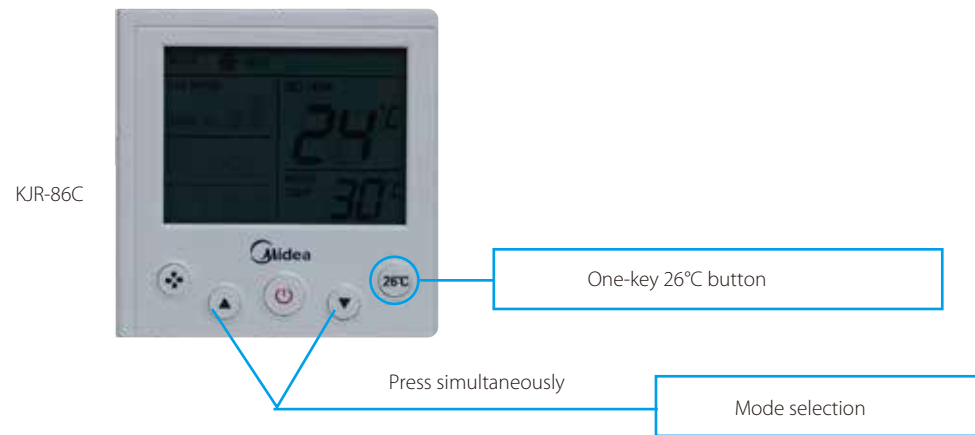
### One-key 26°C >>

KJR-86C has a one-key 26°C function. For saving energy and remaining comfortable, 26°C is the ideal temperature.



## User-Friendly Design >>

The KJR-86C is a hidden-mode controller specially designed for hotels, hospitals, schools and offices. The operating mode is usually hidden, but may be toggled between cooling and heating modes by pressing the "▲" and "▼" temperature buttons simultaneously for three seconds.



## Elegant Design >>

The KJR-86C and KJR-90D wired controllers are the same size as a standard household electrical socket. Fitted with a background light as standard, they are easy to use in the dark.



## Auto Restart >>

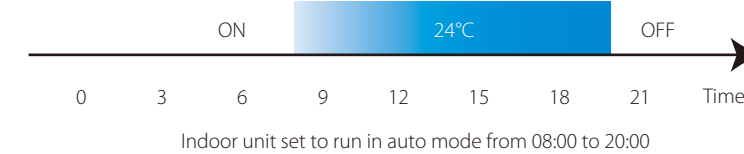
The system records running parameters such as on/off state, mode, fan speed, temperature setting, swing setting and controller lock status. Following a power outage, the system resumes operation with the same parameters as immediately prior to the outage.

KJR-12B



## Built-in Timer >>

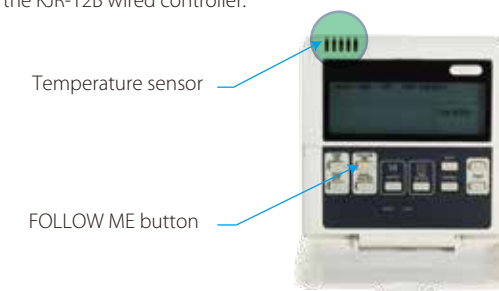
The built-in daily timer allows the system to be automatically started and stopped according to a user-defined daily schedule.



## Follow Me >>

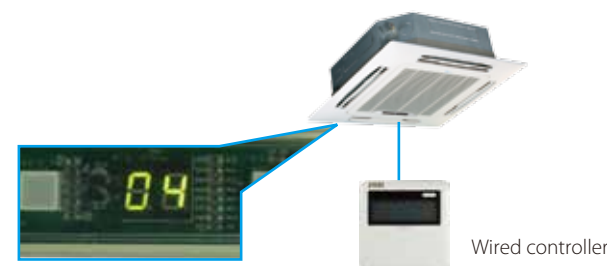
With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in to the wired controller, rather than the temperature sensor in the indoor unit itself, so that temperature is measured closer to the user, rather than at ceiling or floor height\*.

\* The follow me function is available on the KJR-12B wired controller.



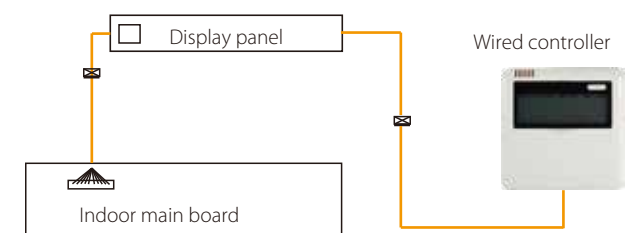
## Addresses Setting >>

The address setting function is coupled with easy installation and simple future maintenance. Service personnel can set the address for the indoor unit using, KJR-29B and KJR-90D.



## Easy Connection >>

The wired controller conveniently connects to the indoor unit's display panel via connecting wire.





KJR-120B



### Auto Mode >>

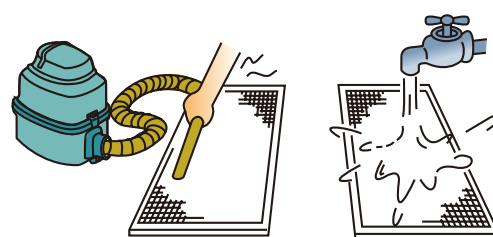
Auto mode automatically selects either cooling or heating mode based on the difference between the indoor temperature and the temperature setting. Auto mode is only available for V4 Plus R Series, if it is used in heat pump system, the auto mode will only operate in cooling mode.

### Error Reporting >>

In the event of a malfunction, error codes are displayed in temperature setting area of the controller's display.

### Clean Filter Reminder >>

The wired controller records the total running time of the indoor unit. When the accumulated running time reaches the value pre-set by the user, the system reminds the user to clean the indoor unit's filter, ensuring that the airflow does not become obstructed.



### Silent Mode >>

In cooling, heating, and auto mode, silent mode reduces the running noise by setting the fan speed to low so you can enjoy peace and quiet while remaining comfortable.



## Weekly Schedule Timer Wired Controller

KJR-120C



### Simple Design >>

The KJR-120C wired controller controls an indoor unit according to a user-defined weekly schedule. Its display shows the operating status of the indoor unit and is equipped with an LCD backlight to enable use in the dark.

### Weekly Schedule Control >>

The weekly schedule timer function allows users to set up to four scheduled periods per day for frequent adjustments. The Schedule feature allows you to program device behavior. If a device must follow a certain schedule, you can program the device to operate only at the scheduled times. Scheduled devices do not activate unless programmed to do so. They are centrally managed, significantly reducing energy consumption.

### Delay Function >>

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

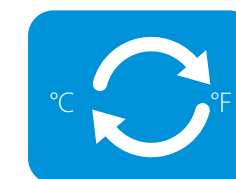
### Error Reporting >>

In the event of a malfunction, error codes are displayed in temperature setting area of the controller's display.



### °F/°C Switch >>

Press the left-right and up-down buttons simultaneously for three seconds to switch between °F and °C.



°F/°C switch

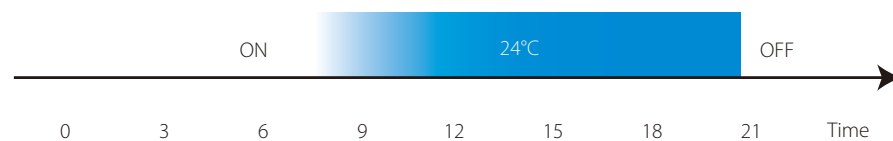
## HRV Wired Controller



The KJR-27B is specially designed for use with Midea's Heat Recovery Ventilator (HRV). Five operation modes are available: exhaust, air supply, bypass, heat exchange, and auto.

### Built-in Timer >>



A built-in daily timer offers the convenience of the HRV automatically starting/stopping at the times set.



### Specifications >>

Model	KJR-29B	KJR-90D	KJR-86C	KJR-12B	KJR-27B	KJR-120B	KJR-120C
Dimensions (WxHxD) (mm)	120x120x20	86x86x16.5	86x86x18	120x120x15	120x120x15	120x120x20	120x120x20
Power supply	DC 5V (Supplied by indoor unit)					DC 12V by IDU	

### Features >>

Model name						
	KJR-12B	KJR-29B	KJR-90D	KJR-86C	KJR-120B	KJR-120C
Fan speed control	●	●	●	●	●	●
Mode selection	●	●	●	●	●	●
Auto mode	—	—	—	—	●	—
Eco mode	●	—	●	—	—	—
Keyboard lock	●	●	●	—	●	●
Swing function	●	●	●	—	●	●
Background light	●	●	●	●	●	●
24hr timer	●	●	●	—	●	●
Clock display	—	●	●	—	●	●
Address setting	—	●	●	—	—	—
Remote signal receiver	—	●	●	—	—	—
Clean filter reminder	—	●	●	—	●	—
Follow me function	●	●	●	—	—	—
Silent mode	—	●	●	●	●	—
One-key 26°C	—	—	—	●	—	—
Indoor temperature display	—	—	—	●	—	—
°F/°C display	—	●	●	—	●	●
Weekly schedule timer	—	—	—	—	—	●
Delay function	—	—	—	—	—	●
Auto restart	—	●	●	●	●	●
Error reporting	—	—	—	—	●	●

Notes:

1. ECO function needs to match with the corresponding indoor units.
2. ● : available — : unavailable

# Centralized Controllers and Monitors



## Indoor Centralized Controllers

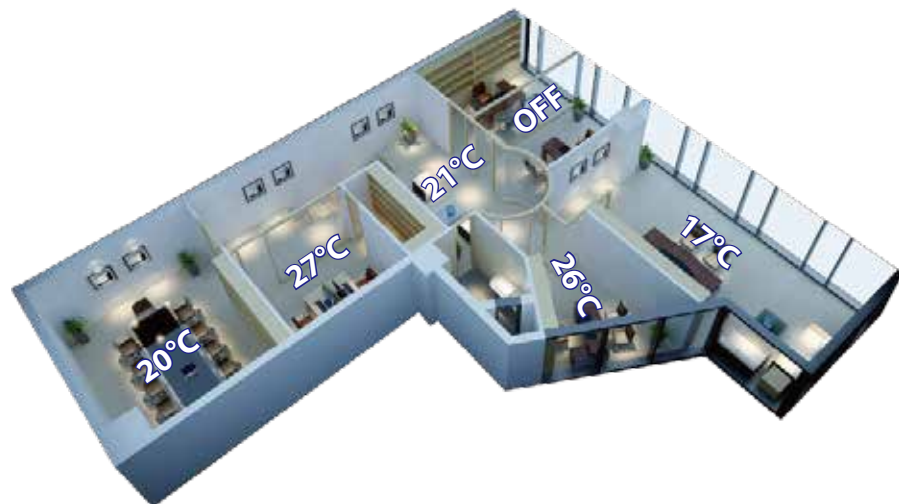


**CCM30**  
**MD-CCM03**  
**MD-CCM09**

- Swing
- Heat mode
- Cool mode
- Fan mode
- 24h Timer
- Keyboard lock
- Remote controller lock
- Cooling lock
- Heating lock
- Dry mode
- Weekly schedule
- Clean filter reminder
- Network access

### Centralized Control >>

Midea centralized controllers are multifunctional devices that can control up to 64 indoor units within a maximum connection length of 1,200m. Users enjoy the flexibility of either controlling multiple units as a group or assigning individual temperature settings to each unit.



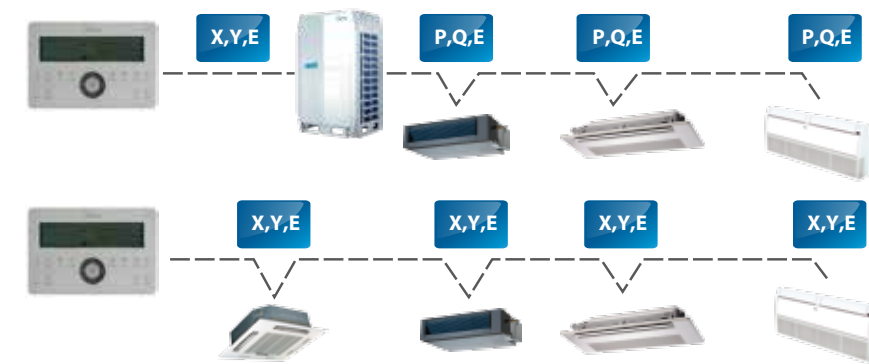
### Multiple Lock Modes >>

In addition to locking the centralized controller's own keyboard, the centralized controller may also be used to lock each unit's operating mode or remote controller.



### Wiring Flexibility >>

To simply and centralize wiring configurations, centralized controllers can be connected directly to the master outdoor unit\*. Alternatively, controllers may be connected to the indoor units.

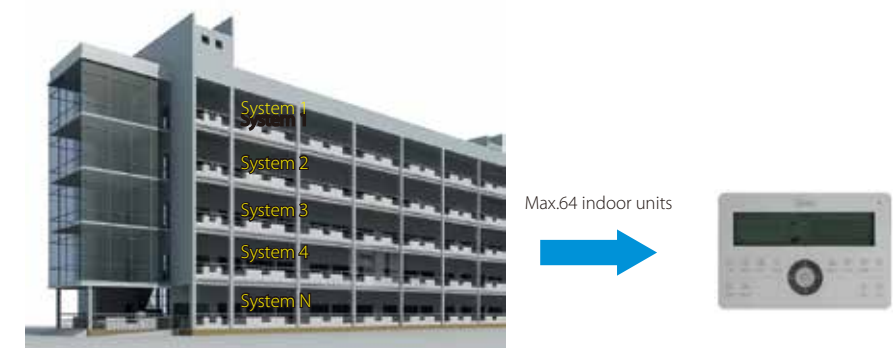


\* If a controller is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

### Multi-system Control >>

Ensure the address is not repeated. Units can be from different systems, with up to 64 indoor units. This greatly reduces system limitations.

\* With 2-pipe systems, all the indoor units must operate in the same mode. With 3-pipe systems, the indoor unit operation mode may be set as required.





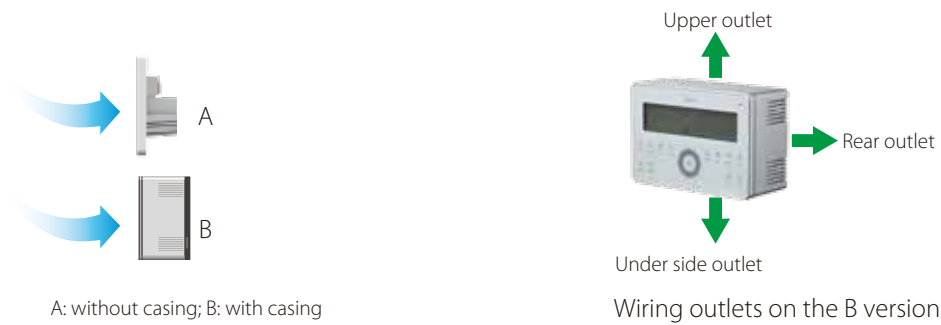
### Clean Filter Reminder >>

The CCM30 centralized controller records the total running time of each indoor unit. When the accumulated running time reaches the value pre-set by the user, the system reminds the user to clean the indoor unit's filter, ensuring that the airflow does not become obstructed.



### Flexibility >>

For installation flexibility, the CCM30 is available in two versions, either with or without a casing.



### Stylish Design >>

The stylish design of Midea's centralized controllers complements the interior ambience of high-specification homes and workplaces.



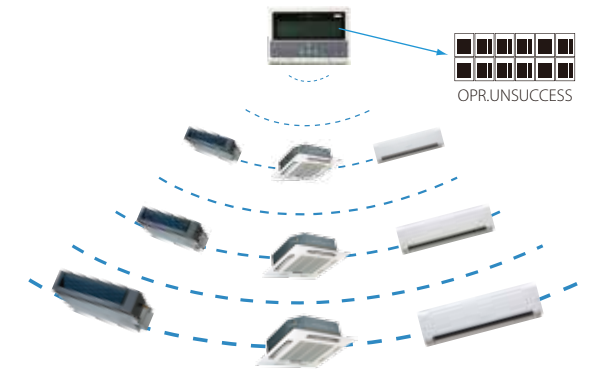
### Weekly Schedule Control >>

The MD-CCM09 centralized controller's weekly schedule timer function allows users to set up to four scheduled periods per day, each with its own operating mode and temperature settings, for up to 64 indoor units. The schedule can be applied to either a single indoor unit or all the indoor units.

	8:00	16:00	23:59
Sun	28°C	22°C	24°C
Mon	26°C	22°C	17°C 23°C
Tue	26°C	22°C	17°C 23°C
Wed	26°C	22°C	17°C 23°C
Thu	26°C	22°C	26°C
Fri	26°C	22°C	26°C
Sat	28°C	off	24°C

### Single/Unified Control Mode >>

Controllers can be toggled between unified and single control modes, to enable either unified control of all units or control of a specific unit. Operating mode feedback is used to ensure that all units are operating in the mode specified by the user.



### Indoor Units Operating Status Display >>

Error and protection codes are shown directly on centralized controllers' displays, avoiding the need to access outdoor units' PCBs to obtain codes during a system event. A wide range of error and protection codes provide system status information to building management professionals before contacting a service engineer.

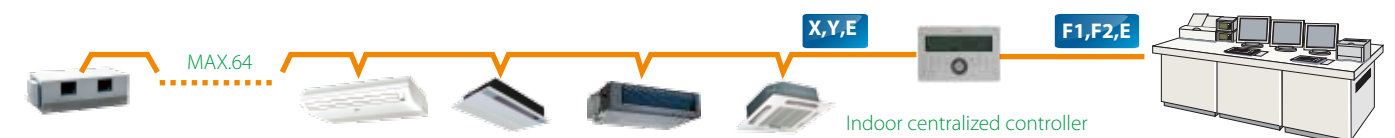
Error code or protection code

Connection status matrix

<p>Current <b>88</b># ALL Protect Set. temp <b>88</b>°C                  Online ON OFF Error</p> <p>T2A T2B T3 Period Room. temp  <b>88:80</b> ON OFF <b>88:80</b></p> <p>Week Sun Mon Tue Wed Thu Fri Sat  <b>88</b> Year <b>18</b> Mon <b>28</b> Day <b>28:88</b></p>	<p>Mode Auto                  ❄️ ☀️                  🌀 🌀                  🌀 Fan</p>	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="2">Query</th> <th>Set</th> <th colspan="2">Opr. unsuccess</th> </tr> </thead> <tbody> <tr><td>00</td><td>01</td><td>02</td><td>03</td><td>04</td><td>05</td><td>06</td><td>07</td><td>08</td><td>09</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td></tr> <tr><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td><td>37</td><td>38</td><td>39</td><td>40</td><td>41</td><td>42</td><td>43</td><td>44</td><td>45</td><td>46</td><td>47</td></tr> <tr><td>48</td><td>49</td><td>50</td><td>51</td><td>52</td><td>53</td><td>54</td><td>55</td><td>56</td><td>57</td><td>58</td><td>59</td><td>60</td><td>61</td><td>62</td><td>63</td></tr> </tbody> </table> <p>Weekly Timer Off 🌊 🌀 🌀 🌀 🌀 🌀 🌀 🌀</p>	Query		Set	Opr. unsuccess		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
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### Network Compatible >>

The centralized controller can connect up to 64 indoor units on the network monitoring and building management systems.



\* 1. If the indoor centralized controller is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.  
 2. Network access is available on the CCM30 and MD-CCM03 centralized controllers only.

## Features >>

Model	 CCM30	 MD-CCM03	 MD-CCM09
Max. number of indoor units	64	64	64
Group control	●	●	●
Individual control	●	●	●
Fan speed control	●	●	●
Mode selection	●	●	●
Mode lock	●	●	●
Remote controller lock	●	●	●
Keyboard lock	●	●	●
Weekly schedule timer	—	—	●
24hr timer	●	●	●
Error reporting	●	●	●
All units start-up function	●	●	●
All units shut-down function	●	●	●
Background light	●	●	●
Swing function	●	●	●
Clean filter reminder	●	—	—
Parameter querying	●	●	●
BMS access	●	●	—

Notes:

● : available — : unavailable

## Specifications

Model	MD-CCM03	CCM30	MD-CCM09
Dimensions (WxHxD) (mm)	179x119x74	180x122x78 and 180x122x68	179x119x74
Power supply	198-242V (50/60Hz)		

## Unified On/Off Controller

The KJR-90B is a unified on/off controller that offers the ability to simultaneously turn on or off and select heating or cooling mode for multiple units using a simple panel control whilst also allowing each unit's on/off status can to be individually controlled.



KJR-90B

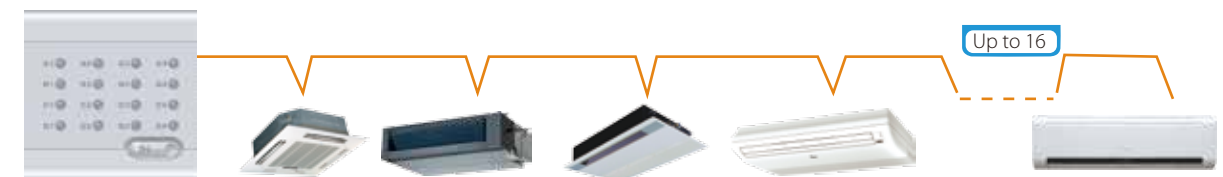
### Unified Control >>

KJR-90B offers on/off and heating/cooling functions for indoor units based on preset temperatures to ensure easy management.



### Centralized Control >>

Up to 16 indoor units can be controlled through one KJR-90B.



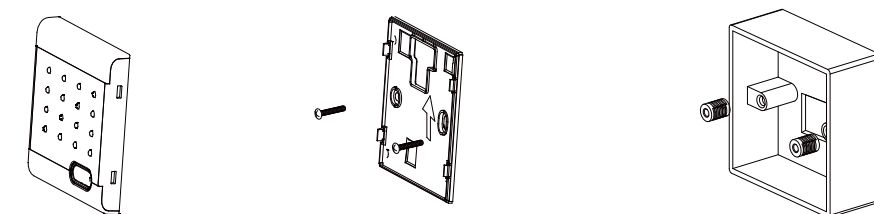
### LED Indicators >>

The LEDs on KJR-90B indicate indoor units' running status for easy fault detection. The lights switch off automatically to save energy once an action is completed. The indicators are as follows:

Light	Blue	Red	Flash
Individual unit on/off key	Cooling/Fan	Heating	Indoor unit error
Master on/off key			EEPROM error

### Easy Installation >>

KJR-90B can be easily mounted on the built-in cabinet:



## Specifications

Model	KJR-90B
Dimensions (HxWxD)(mm)	90x86x8
Power supply	5V DC (Supplied by indoor unit)

## Outdoor Unit Centralized Monitor

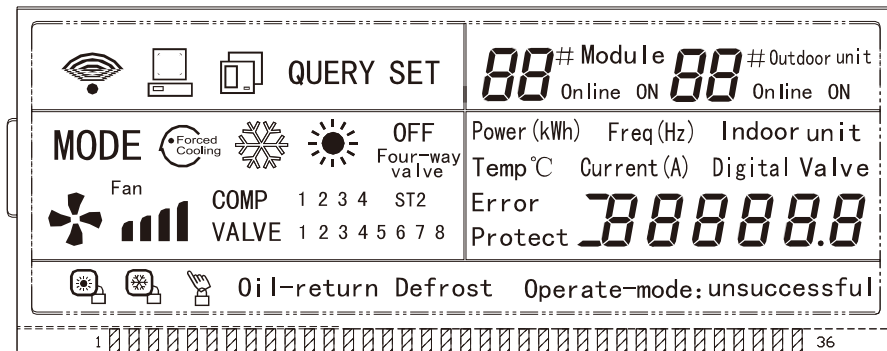
MD-CCM02



- Query parameters
- Power consumption
- Protection/Error codes
- Communication by ODU
- Communication by PC
- Forced Cooling

### Parameter Display >>

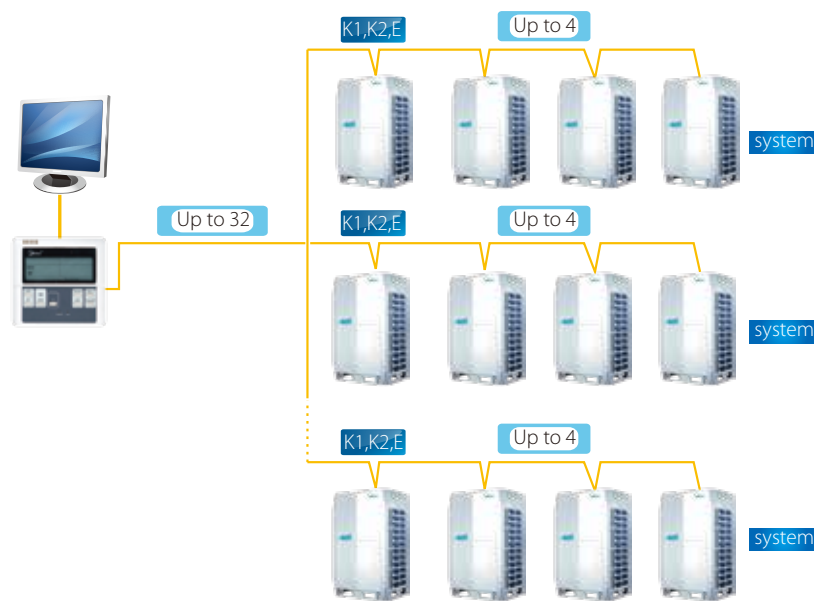
The MD-CCM02 Outdoor Unit Centralized Monitor enables users to easily check outdoor units' parameters including frequency, temperature, current and pressure, and also check outdoor units' protection and error codes.



Graph 2 LCD Screen

### Access to Network Monitoring >>

MD-CCM02 can connect up to 8 refrigerant systems and 32 outdoor units to the network system.



### Specifications

Model	MD-CCM02
Dimensions (WxHxD) (mm)	120x120x15
Power supply	198-242V (50/60Hz)

## Network Control Software and Gateways





# Network Control Software and Gateways



## IMM (Intelligent Manager of Midea) Midea's Fourth Generation Network Control System



IMM software



M-interface Gateway

IMM, Midea's fourth generation network control system, is specially designed to control VRF systems. With a centralized system architecture, it monitors and controls all the parameters and functions of the VRF system. IMM's built-in flexibility suit it to building solutions that vary widely in scale, purpose and control schema.

### Key Features >>

- ❖ Up to 4 M-interface gateways, 64 refrigerant systems, 1,024 indoor units, and 256 outdoor units can be controlled by one PC
- ❖ User-friendly
- ❖ Web access for M-interface gateway
- ❖ Central building monitoring and control
- ❖ Energy management
- ❖ Zone management
- ❖ Warning message
- ❖ \*SMS modem(optional)
- ❖ Electricity charge distribution
- ❖ Annual schedule management
- ❖ Low-load operation indicator
- ❖ Operational history reports (daily, weekly)
- ❖ Fault display
- ❖ Clean filter reminder
- ❖ Emergency stop and Alarm signal output
- ❖ Multiple languages



Web Access function



Energy Management



Schedule Management



Visual Navigation



Warning Message



Data Backup

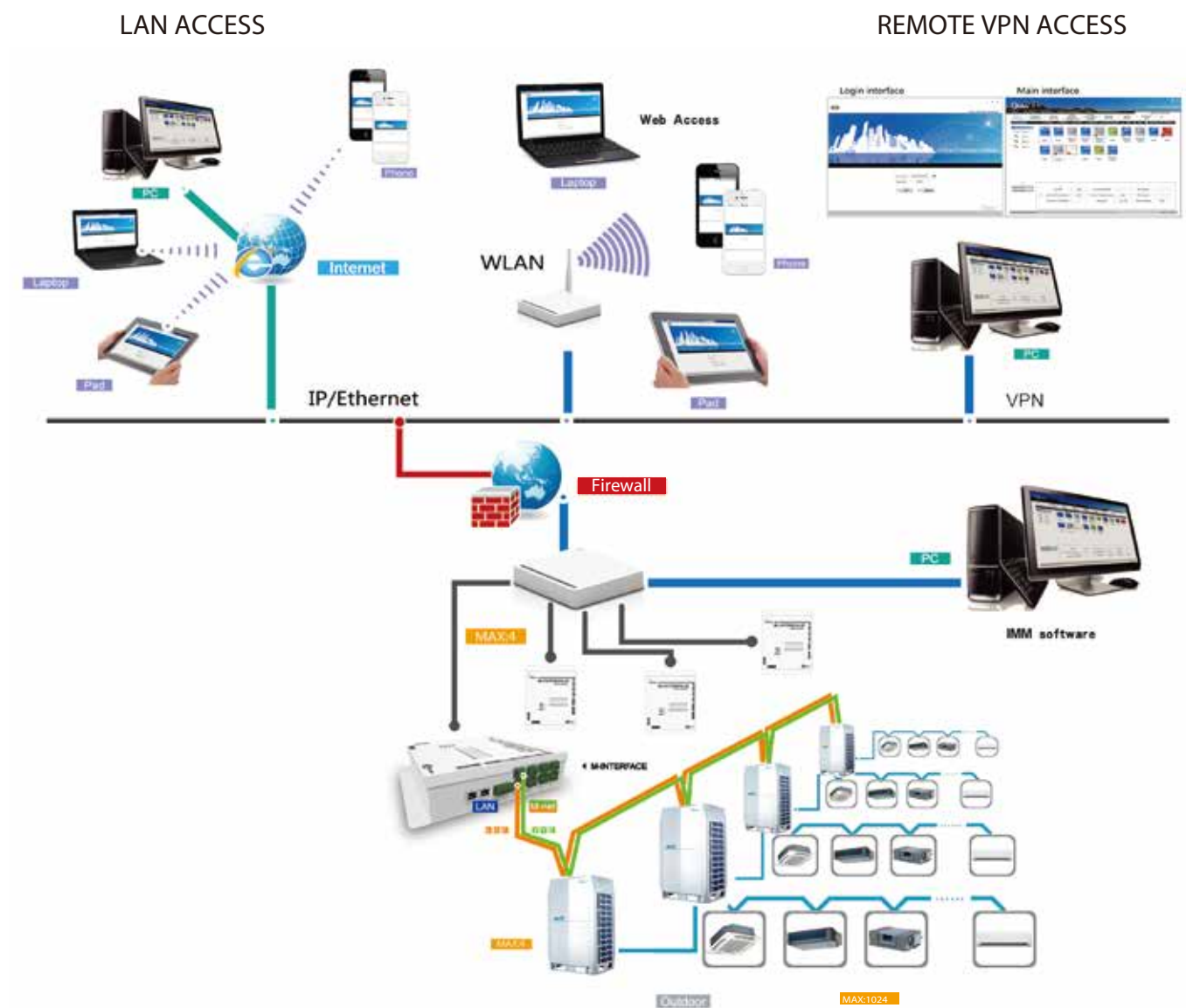


Multiple Languages



Electricity Charge Distribution

### Network Control >>

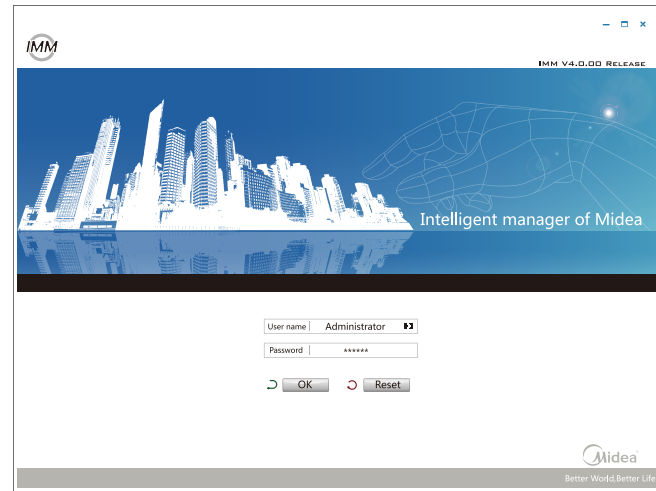


- ❖ Compatible with Windows XP 32 bit, Windows 7 32/64 bit and Windows 8
- ❖ Browser-based access on a PC, tablet computer or smart phone
- ❖ Remote access via VPN link to network allows anytime, anywhere monitoring and control
- ❖ Full support for access via IE, Firefox, Safari and Chrome

## Simple Operation and Management >>

- ❖ Flexible and highly efficient centralized management system
- ❖ User-friendly 'click and operate' interface allows non-experts to easily run the building management system

Login interface



Main interface



## Visual Schematic >>

By importing floor plans into IMM and using the drag and drop interface to position the indoor units on the floor plan, users can create a tailored system schematic which enables monitoring and control of each unit's status and parameters through a clear visual representation of the system layout.



## Web Access Function >>

A PC, tablet computer or smart phone can be used for browser-based access to IMM via a LAN connection or VPN/WAN connection. Using a VPN link on a WAN enables remote anytime, anywhere access, allowing facilities management professionals to monitor and control Midea VRF systems whilst on business trips or working from home. Up to four registered users may connect concurrently.

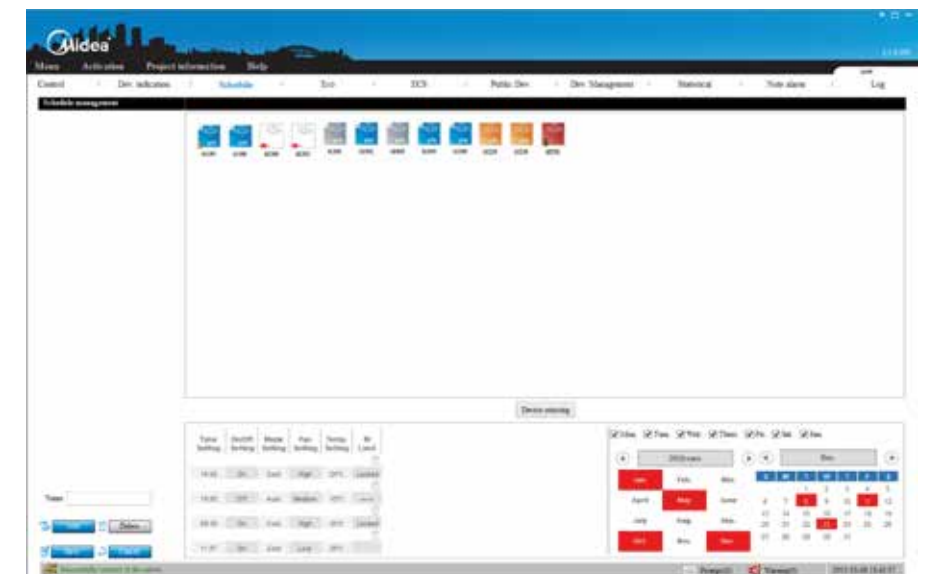
\*WAN access needs to set up the VPN.



## Schedule Management >>

A daily or weekly schedule can be set to control the on/off status, operating mode, temperature setting and remote control lock status of each indoor unit.

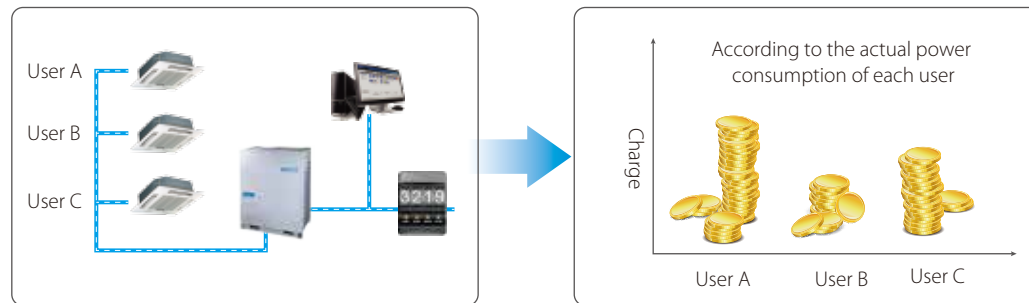
- ◆ Daily/weekly task scheduling
- ◆ Individual schedules can be applied to each indoor unit
- ◆ Advanced energy conservation options





## Electricity Charge Distribution (Patented) >>

IMM uses the patented Midea Calculation Method to estimate the energy consumption of each indoor unit (or group of units) in order that air conditioning electricity charges can be equitably divided among building occupants. The Midea Calculation Method takes account of temperature setting, room temperature, return air temperature, operating mode, running time, refrigerant flow, indoor unit power rating and nighttime use to estimate the energy consumption of each indoor unit before apportioning the estimated energy consumption of units in public areas among building occupiers. Unit-by-unit electrical energy consumption data also greatly facilitates the optimization of energy consumption management.

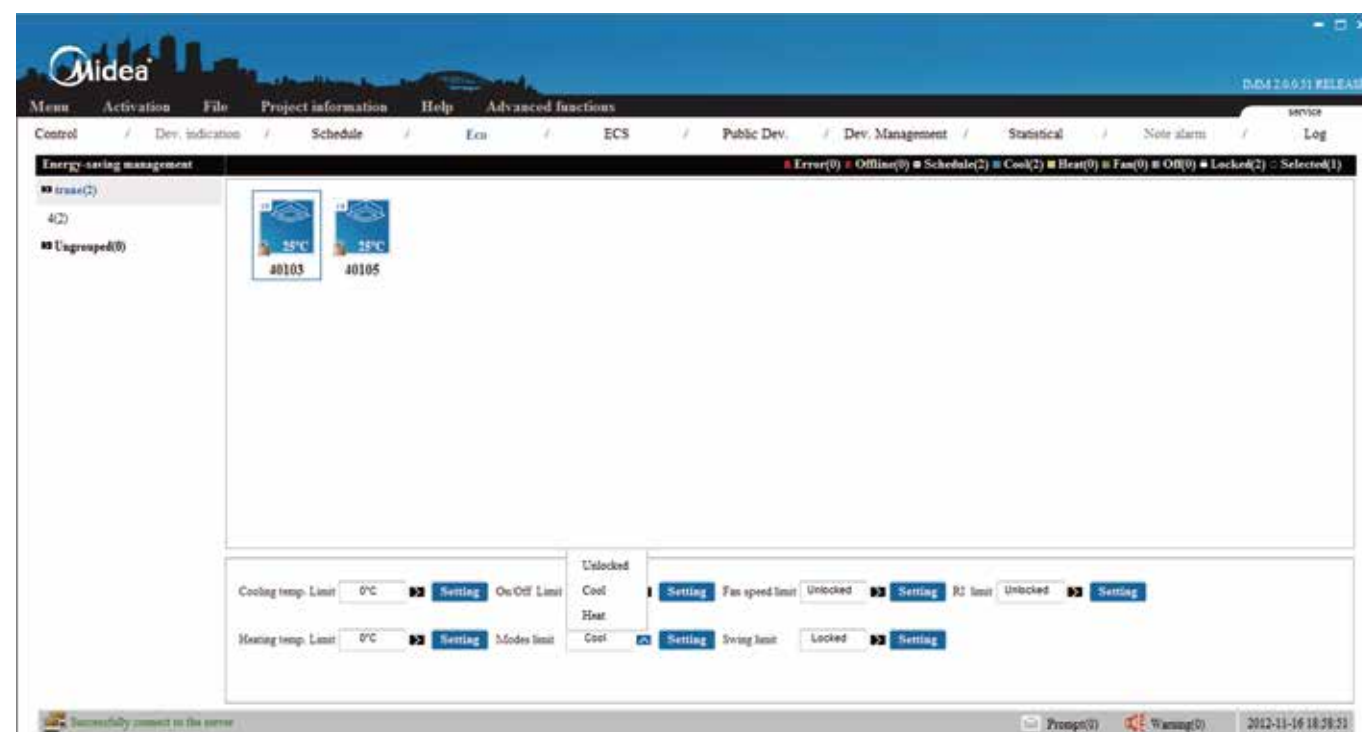


## Energy Management >>

Based on a predetermined schedule, the Intelligent Manager executes capacity control and intermittent operations on all air conditioning units to maintain a high comfort index.

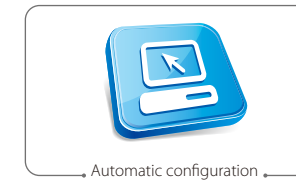
User can set a limit on any running unit, any parameter, such as cooling temp., heating temp., fan speed, operation mode, and so on.

- \* 1. Meet with the <Public building energy efficiency management regulations>.
- 2. Matches the corresponding indoor units.



## Automatic or Manual Network Configuration >>

IMM offers a choice of automatic or manual network configuration.



Each M-interface gateway can support up to 4 refrigerant systems, 16 outdoor units and 256 indoor units.



Each M-interface gateway can support up to 16 refrigerant systems, 64 outdoor units and 256 indoor units.

## Warning Message >>

The system can receive error messages from air conditioning units in more than one building on public phone lines. If a particular factor influences normal operations, the system will send a message to technicians as an early warning.

\*Requires the Midea "SMS Modem" to send automatic warning messages to designated phone numbers.

## Zone Management >>

Zones can be set up to enable the easy management of areas with differing heating/cooling requirements such as offices, restaurants, gyms and lobbies.

## Data Backup >>

Double data backup stored on the M-interface and IMM database.

The M-interface gateway automatically backs up power data for 1 or 2 months if a system failure occurs.

Examples: if there is a PC power failure or a system crash, the M-interface will automatically backup the data to the gateway. IMM software also stores running data on the software database.

## Multiple Language Options >>

Nine languages are supported and can be selected by the user.

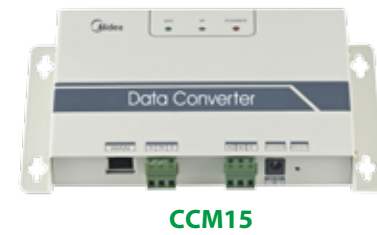




## Data Converter

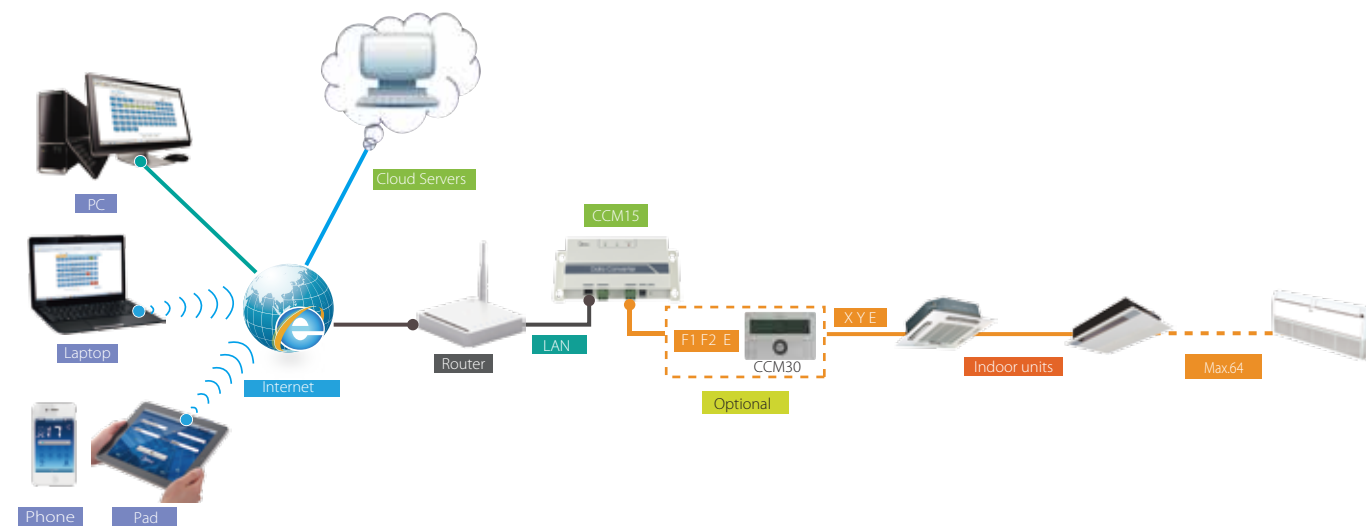
The cloud server controller enables remote control on the VRF system through the Internet.

Smart phones, tablets, laptops, and desktop PCs can serve as a web controller for up to 64 indoor units.



## Network Flexibility >>

The CCM15 Data Converter can be connected directly to a network of indoor/outdoor units or, alternatively, via a CCM30 or MD-CCM03 centralized controller\*.



\* If the data converter is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

## Simple Control Interface >>

Software control/ Cloud server control (WEB access).

Click & Operate: the user-friendly interface.

Allows single and group control.

Simplified user control interface.

Color indication and icons makes it easy to recognize unit status.

Includes a full-screen display, and allows temperature adjustment by swiping.



## Weekly Schedule Control >>

Users can set a weekly schedule either for specific units or for groups of units. Each day may be divided into multiple sections. The controller automatically controls each units' on/off status, operating mode and temperature settings according to the schedule.



## Cloud Server Access >>

Query and control a single unit or group.

Weekly schedule setting: can set multiple sections in each day for a single unit or group.

Group user control: you can use the same ID to manage hundreds of CCM15 when you select the As group user button on the login page.

Historical errors: easy service and management with a history error function.

## Added Convenience >>

The air conditioner can be remote controlled by a phone or tablet.

Query and control the running state of the A/C anytime, anywhere, and schedule queries and actions in advance.

Remotely turn off the air conditioner to avoid wasting power.



**Modbus® Gateway**

**LonWorks® Gateway**

**BACnet® Gateway**

**KNX Gateway**

**BMS**

## BMS Integration >>

Monitoring and control of Midea'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. Midea's gateway devices provide full compatibility with the four leading BMS protocols: BACnet, LonWorks, Modbus and KNX.



MD-KNX

## KNX Gateway

### Full Integration >>

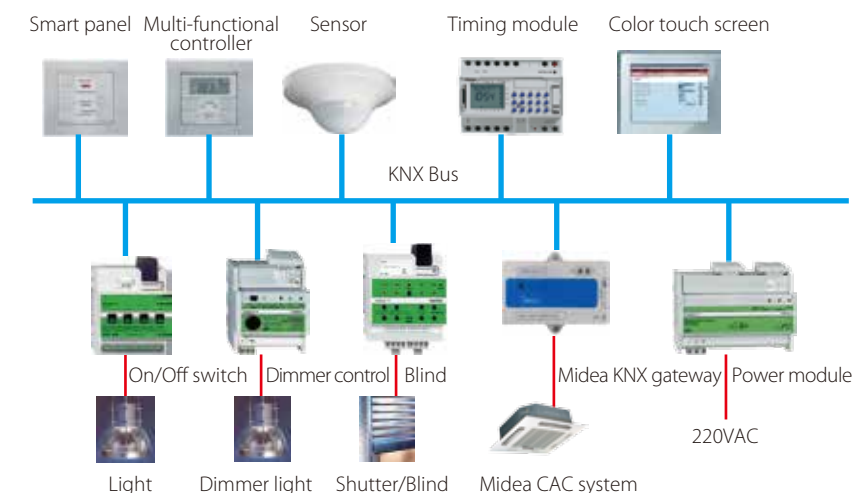
Midea's MD-KNX KNX Gateway enables full integration of Midea VRF systems with home and building management systems built on the KNX network communications protocol.

### Key Features >>

- ❖ Compatible with all Midea VRF products
- ❖ External power not required
- ❖ Full KNX compatibility, configured using ETS
- ❖ Multiple parameters can be set
- ❖ Easy to install - connects directly with indoor units using RS485
- ❖ Connects directly to the KNX bus
- ❖ KNX certification

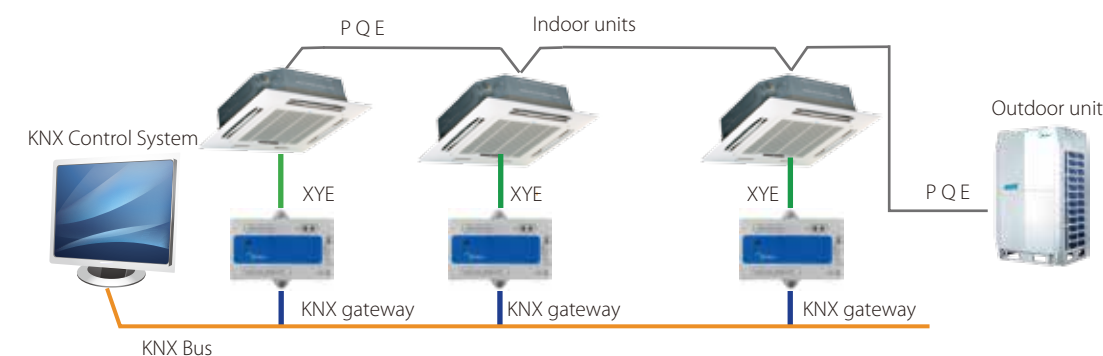
### Broad Integration >>

Being compatible with the KNX protocol means that Midea's VRF air conditioners can be integrated into control systems alongside the wide range of KNX compatible products that are available.



### Electrical Wiring >>

One gateway can be connected to one indoor unit, and it only can be connected to indoor unit's XYE ports.







MD-CCM08

## BACnet® Gateway

### Full Integration >>

Midea's MD-CCM08 BACnet Gateway enables full integration of Midea VRF systems with control networks build on the BACnet communications protocol, allowing Midea 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.

### Key Features >>

- ❖ Precise and efficient monitoring and control of Midea VRF systems
- ❖ Connects up to 256 indoor units or 128 outdoor units to the BMS
- ❖ Choose whether or not to connect to the BMS
- ❖ Built-in IP access function
- ❖ BTL certification

#### ● Control

- Operating mode
- Temperature setting
- Fan speed
- Swing
- Remote controller lock

#### ● Monitor

- Operation mode status report
- Set temperature status report
- Fan speed status report
- RC locking status
- Online quantity
- Timer status
- Error status
- Room temperature display

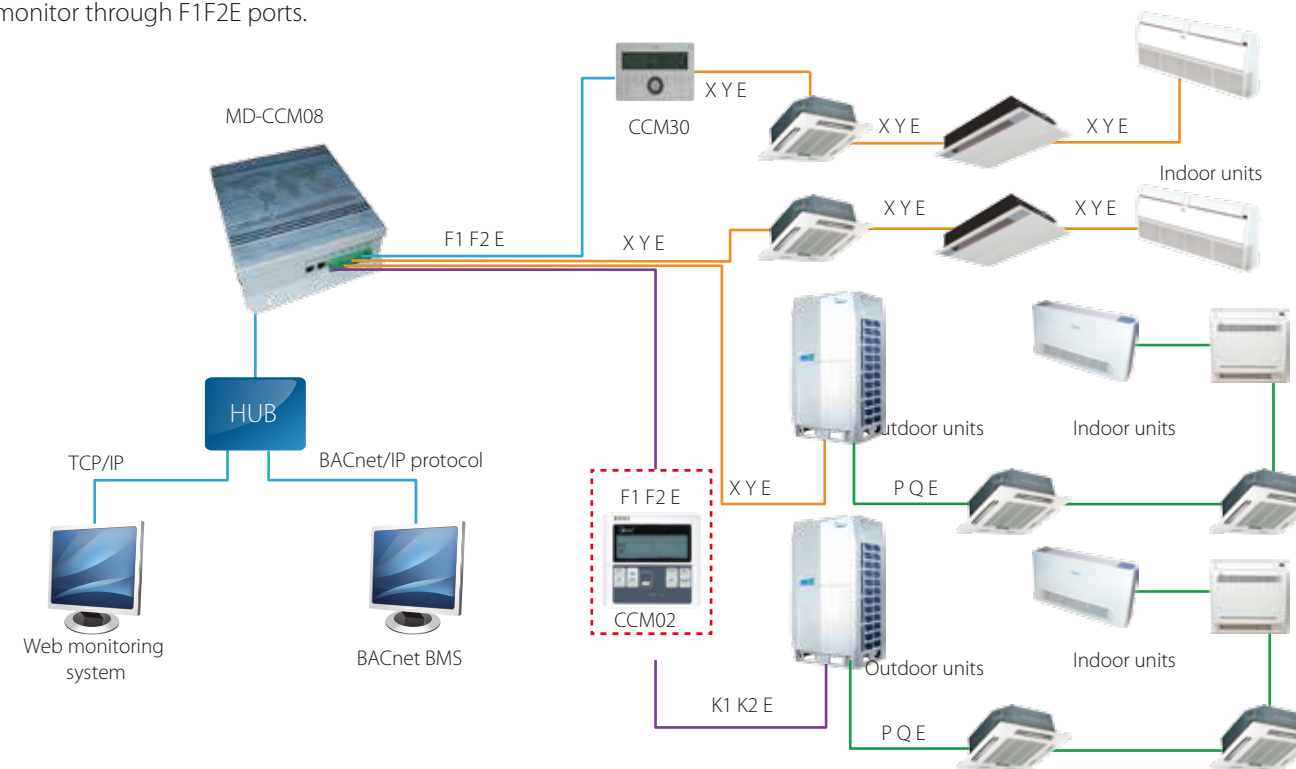
\*For more information, refer to the product object table.

### Network Access >>

MD-CCM08 allows users to track units' running status and change their running parameters on Internet Explorer for maximum control convenience.

### Network Flexibility >>

The gateway can be connected either to an indoor unit's XYE ports or an outdoor unit's XYE or K1K2E ports\*. It is also compatible with connection to an MD-CCM03 centralized controller or an MD-CCM02 centralized outdoor unit monitor through F1F2E ports.



\* If the gateway is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

### Wide Compatibility >>

The MD-CCM08 is fully compatible with a wide range of leading building management systems.

	Company	BMS software	Brand
1	SIMENS	APOGEE	
2	TRANE	Tracer Summit	
3	Honeywell	Alerton	
4	Schneider	Andover	
5	Johnson	METASYS	

### Specifications

Model	MD-CCM08
Dimensions (HxWxD)( mm)	319x251x61
Power supply	AC 220V~50/60Hz





LonGW64

## LonWorks® Gateway

### Full Integration >>

Midea's LonGW64 LonWorks Gateway enables full integration of Midea VRF systems with Echelon Corporation's LonWorks control platform, ensuring that Midea VRF systems can be monitored and controlled alongside other building management technology on the LonWorks platform such as security, fire safety and lighting systems.

### Key Features >>

- ❖ Up to 64 indoor units can be connected with each gateway
- ❖ Easy to install

#### ● Control

- Operating mode
- Temperature setting
- Fan speed

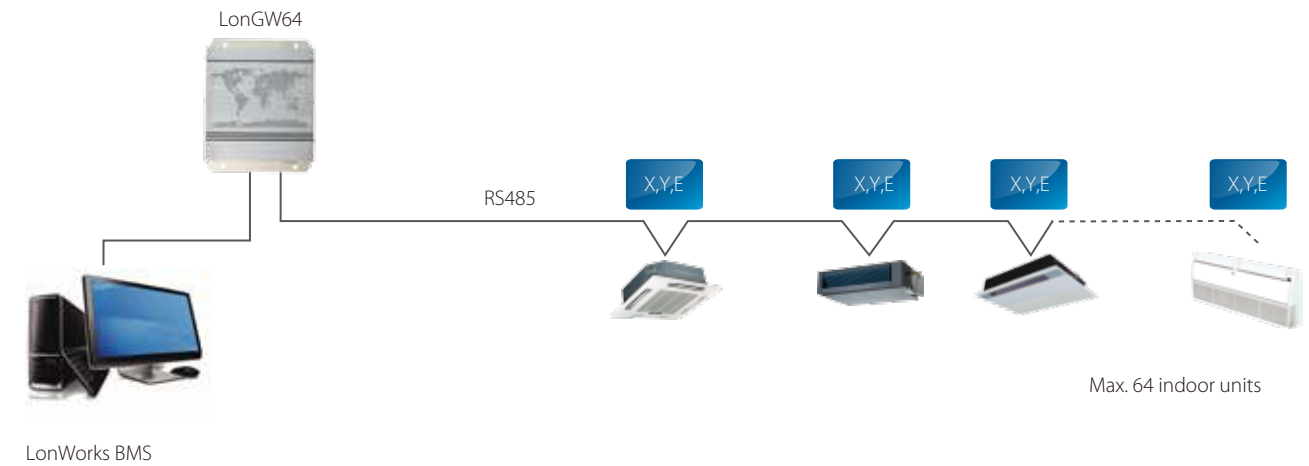
#### ● Monitor

- Operation mode status report
- Set temperature status report
- Fan speed status report
- Online/offline status
- Online quantity
- Error status
- Room temperature display

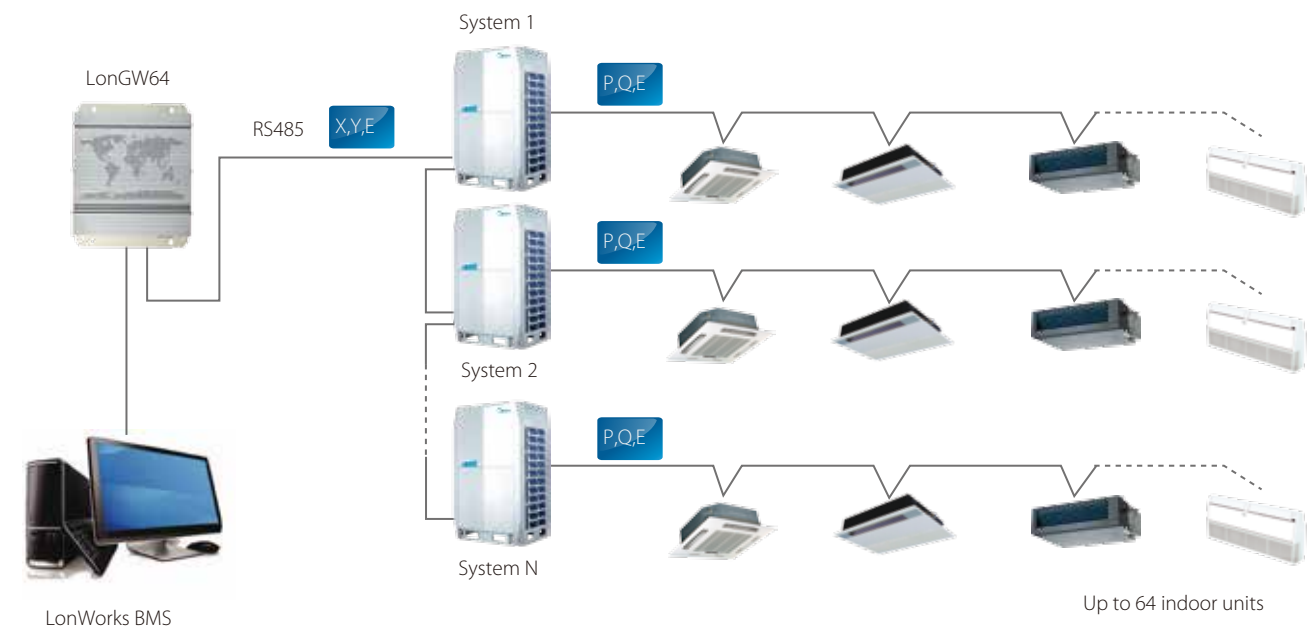
\*For more information, refer to the product network's variable charts.

### Network Flexibility >>

- ❖ Connection method 1: Connects to indoor unit's X,Y,E ports.



- ❖ Connection method 2: Connects to outdoor unit's X,Y,E ports\*.



\* If the gateway is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

### Specifications

Model	LonGW64/E
Power supply	AC 220V~50/60Hz
Dimensions (HxWxD) (mm)	319x251x61



**CCM-18A/N**  
**CCM-18A/N-U**

## Modbus® Gateway

### Full Integration >>

Midea's CCM-18A/N and CCM-18A/N-U Modbus Gateways enable seamless connection of Midea VRF systems with building management systems built on the Modbus communication protocol.

### Key Features >>

- ❖ Connects up to 16 indoor units (CCM-18A/N-U) or up to 64 indoor units and up to 4 outdoor units (CCM-18A/N)\*
- ❖ Connects to BMS through either TCP/IP or RTU
- ❖ Built-in IP access function

\*The four outdoor units must be in the same system

#### ● Control

- Operation mode
- Temperature setting
- Fan speed

#### ● Monitor

- Online/offline status
- Operation mode
- Temperature setting
- Room temperature
- Fan speed
- Remote control lock status
- Timer status
- Error status

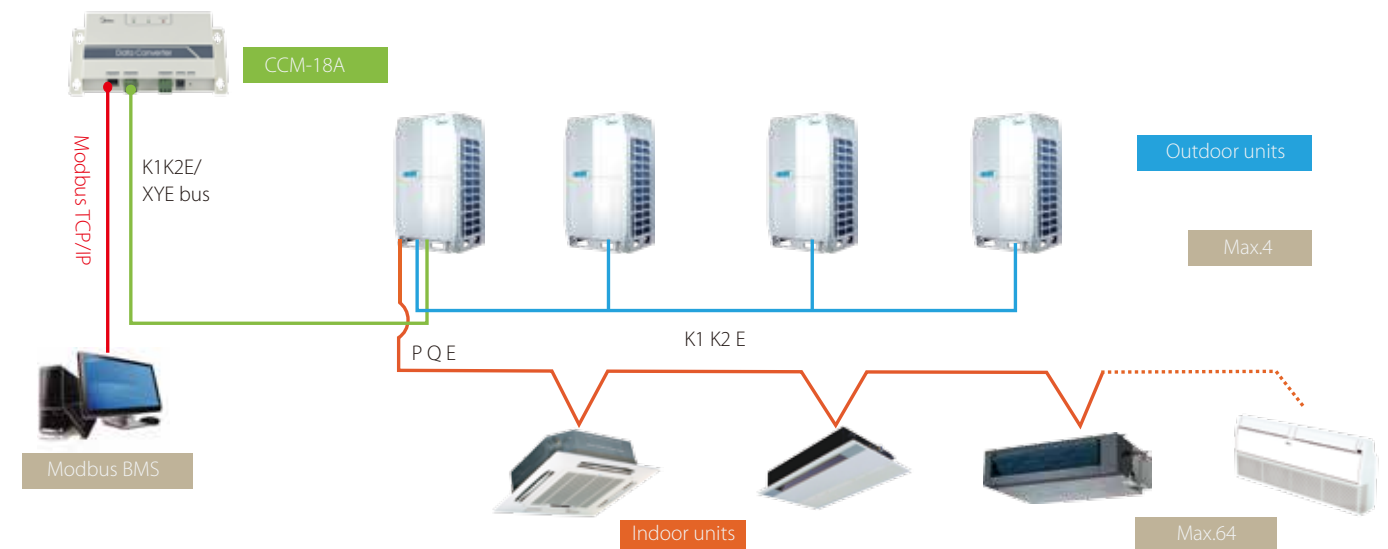
### Network Access >>

When the Modbus network is set, users can conveniently configure their A/C network system online using different TCP/IP browsers.

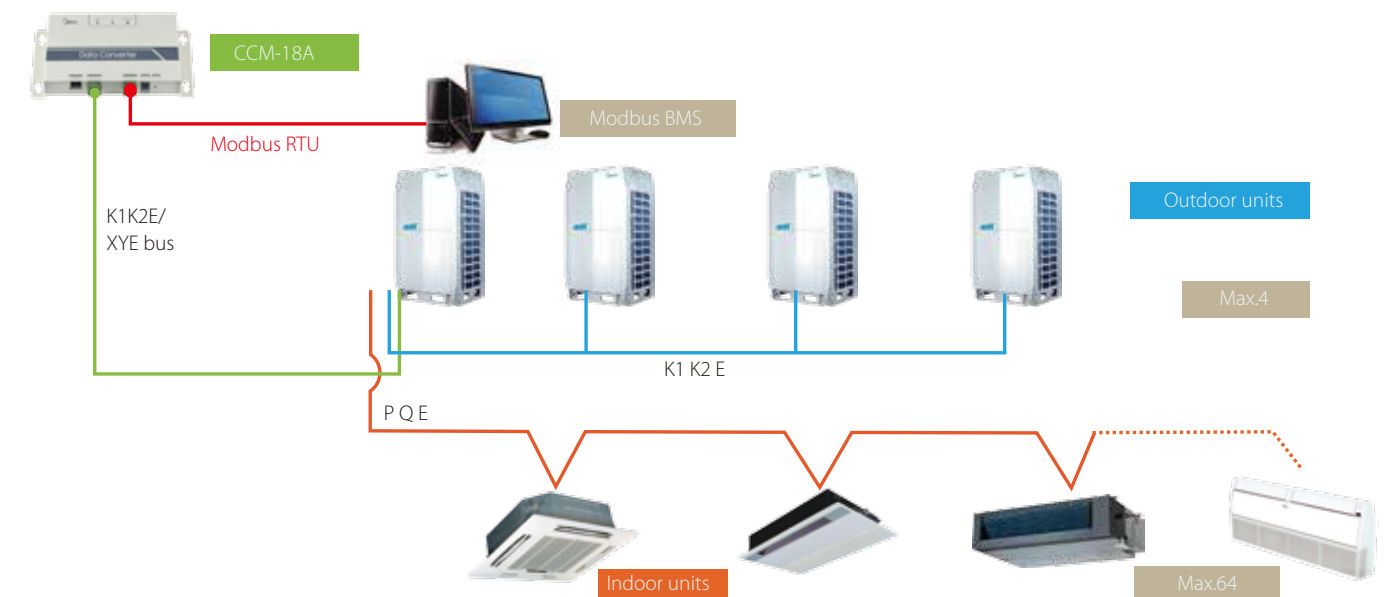


### Network Flexibility >>

- ❖ TCP connection method



- ❖ RTU connection method



\* If the gateway is connected directly to an outdoor unit, the outdoor unit must be set to auto addressing mode.

### Specifications

Model	CCM-18A
Dimensions (HxWxD)( mm)	319x251x61
Power supply	AC 220V~50/60Hz

## Accessories



## Hotel Key Card Interface Module



MD-NIM05/E



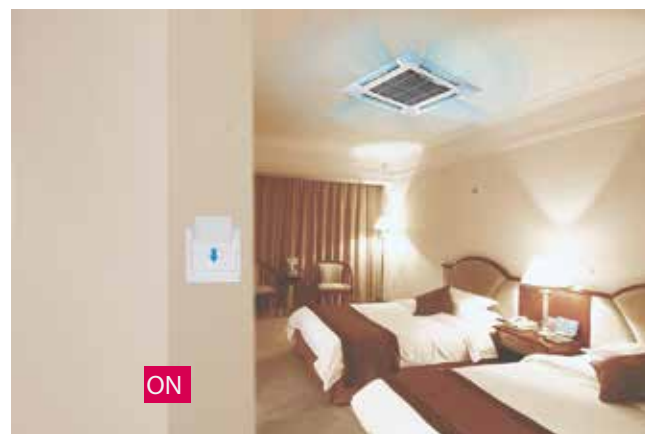
MD-NIM05B/E

### Key Features >>

- ❖ Specially designed for hotel guest rooms
- ❖ Simple, compact, and easy to operate
- ❖ Built-in auto restart function
- ❖ Compatible with remote and wired controllers

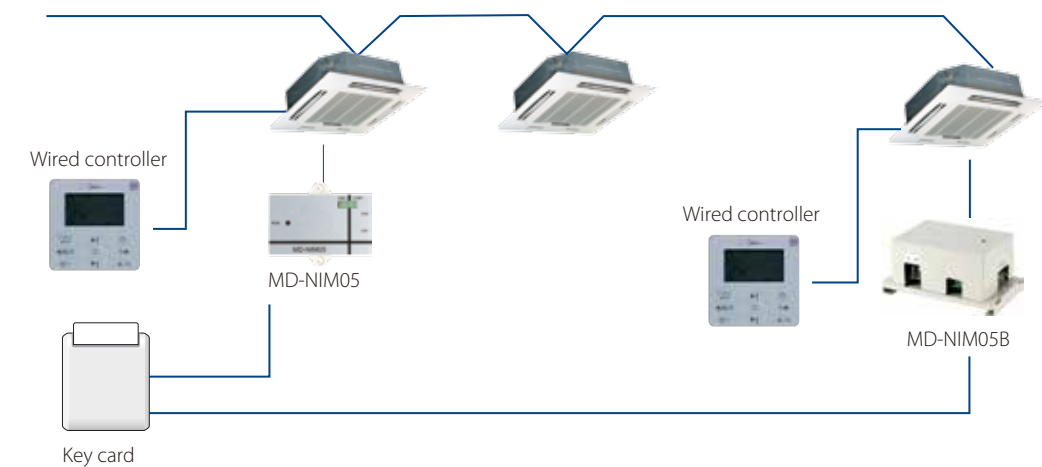
### Auto Restart >>

When the key card is inserted, the unit is activated and the guest may use the remote or wired controller to adjust the air conditioning settings. When the key card is removed, the interface module records the unit's settings and then, when the card is re-inserted, the unit is restarted with the previously recorded settings.



### Network Schematic >>

Easy installation and remote controller or wired controller can control indoor units.



The MD-NIM05/E works in conjunction with a high voltage relay.

The MD-NIM05B/E can be connected directly to the hotel card slot system (AC 220V) without the need for a high voltage relay.



### Specifications

Model	MD-NIM05/E	MD-NIM05B/E
Dimensions (HxWxD) (mm)	15.5x86x72.8	87x150x70
Power supply	DC 5V (Supplied by indoor unit)	AC 220V



## Infrared Sensor Controller

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.

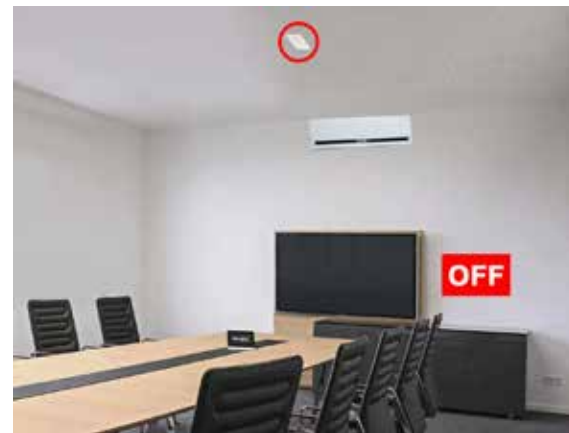
- ❖ Automatically extends shut down time to avoid frequent on/off actions
- ❖ Simple design discretely blends in with hotel, office or apartment complex decors



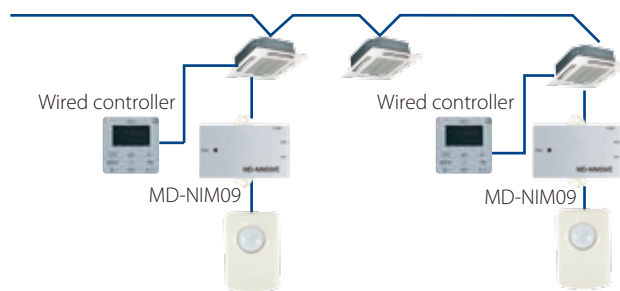
MD-NIM09

### Flexibility >>

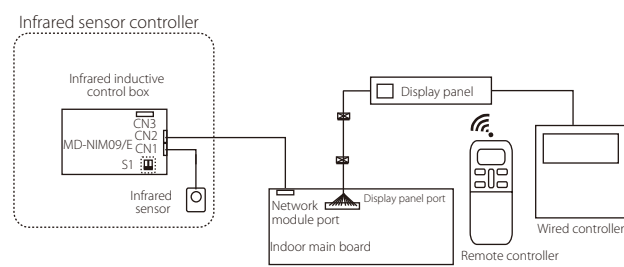
The sensor may be fixed either to a wall or a ceiling, providing flexibility to tailor the arrangement of sensors to the particular geometry of any space. Users may additionally use remote or wired controllers to adjust the air conditioning settings.



### Installation Schematic >>



### Electrical Wiring >>



### Specifications

Model	MD-NIM09
Dimensions (HxWxD)(mm)	Sensor 46x30x25.6, Control box: 86x72.8x15.5
Power	DC 5V (Supplied by indoor unit)

## 3-Phase Protector

The HWUA and DPB71CM48 3-phase protectors automatically distinguish and respond to abnormal power supply conditions, taking protective action to avoid damage to outdoor unit compressors.



HWUA DPB71CM48

### High Reliability >>

The protector protects the entire system from power supply problems, and auto restarts after recovery.

### Specifications

Model	With over/under voltage function				Without over/under voltage function
	HWUA	DPA53CM23	HWUA	DPB71CM48	DPA51CM44
Power supply	220~480V-3N 50/60Hz	208~480V-3N 50/60Hz	220~480V-3N 50/60Hz	380~480V-3N 50/60Hz	208~480V-3N 50/60Hz
Temp. range	-20°C~50°C	50Hz: -20°C~60°C 60Hz: -20°C~50°C	-20°C~50°C	-20°C~50°C	50Hz: -20°C~60°C 60Hz: -20°C~50°C
Rated operational power	2.9 VA	7 VA	2.9 VA	13 VA	13 VA
Over voltage	12%	12%	18%	18%	/
Under voltage	-12%	-12%	-12%	-12%	
Phase imbalance	8%	/	8%	8%	
Dimensions(WxHxD)(mm)	90x69x35	81x67.2x17.5	90x69x35	81x67x35	81x67.2x17.5

## Digital Power Meter

The DTS634 and DTS636 digital energy meters can be fitted to outdoor units (on a one meter per unit basis) to measure power consumption.

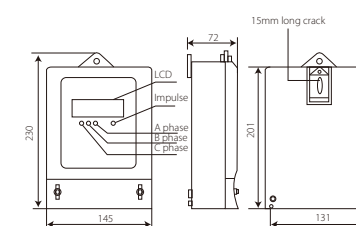


DTS634  
DTS636

### Low Power Consumption >>

The digital power meter consumes minimal energy.  
Voltage circuit: less than 2W/10VA  
Current circuit: less than 2.5VA

### Installation Schematic >>



The digital power meter is tested after manufacture so it can be immediately deployed and used on-site. The LED indicators and installation schematic are shown in the figure on the left.

### Specifications

Model	DTS634/DTS636
Dimensions (HxWxD)(mm)	230x145x72
Power supply	200V-500V(50/60Hz)

## Indoor Unit Group Controller

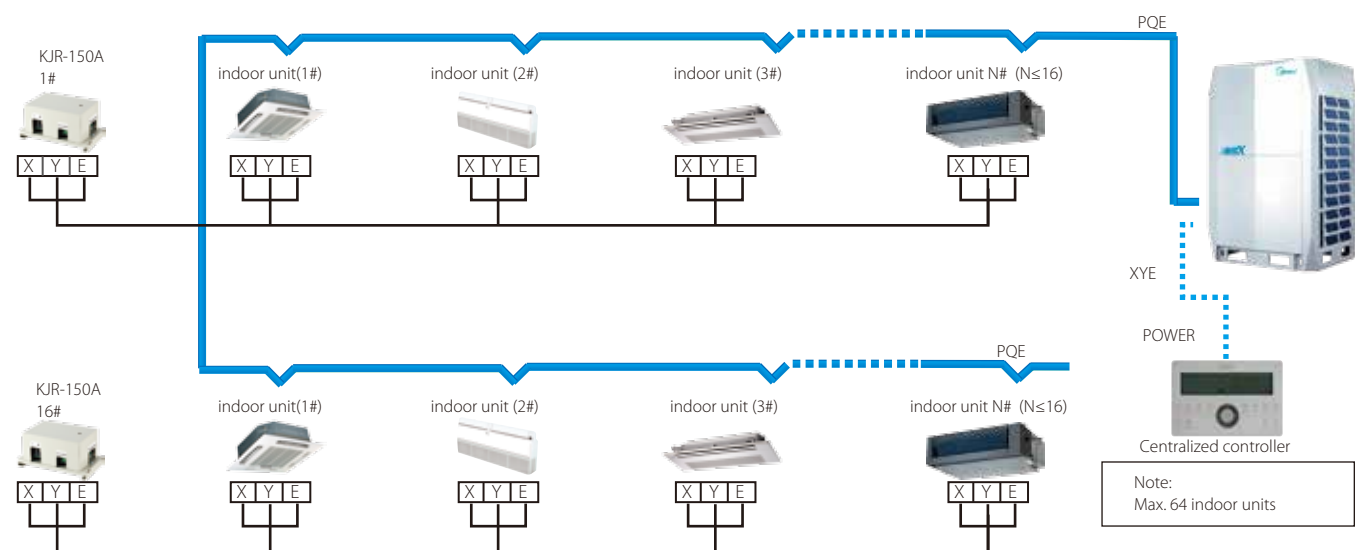


**KJR-150A**

### Unified Control >>

The KJR-150A Indoor Unit Group Controller enables simultaneous control of a group of up to 16 indoor units from a single wired or remote controller. Each unit's operating parameters can also be individually controlled using its own remote controller.

### System Schematic >>



### Specifications

Model	KJR-150A
Dimensions (HxWxD)(mm)	85X150X70
Power supply	198-242V(50/60Hz)

## Remote Alarm Controller



**KJR-32B**

### Simple Design >>

When connected to an alarm device, the KJR-32B Remote Alarm Controller activates the alarm (and flashes its own LED indicator) if an outdoor unit system abnormality occurs.

### Specifications

Model	KJR-32B
Dimensions (HxWxD)(mm)	85X150X70
Power supply	198-242V(50/60Hz)

## AHU Control Box

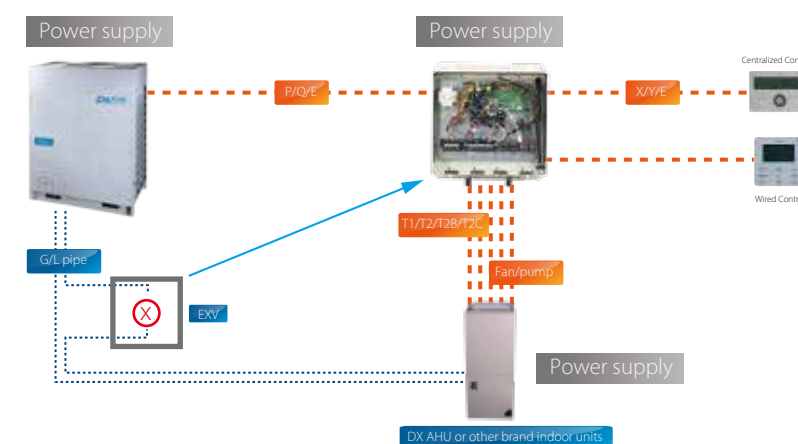


- AHUKZ-01A
- AHUKZ-01B
- AHUKZ-02A
- AHUKZ-02B
- AHUKZ-03A
- AHUKZ-03B

### Interoperability >>

AHU Control Boxes can be used to connect VRF outdoor units with direct expansion air handling units or compatible other-brand AC fan motor indoor units, giving flexibility to adapt to the specific needs of each large project. Up to four B Series AHU Control Boxes can be linked together; A Series boxes operate independently. (Note that AHU Control Boxes are not compatible with V4+R or V5 series VRF systems).

### System Schematic >>



### Specifications

Model	AHUKZ-01A/AHUKZ-02A/AHUKZ-03A
	AHUKZ-01B/AHUKZ-02B/AHUKZ-03B
Dimensions(HxWxD)(mm)	335x375x150
Power supply	220-240V~ 50Hz 208-230V~ 60Hz

## Selection Software

Midea's advanced design automation tool, which is available as an AutoCAD add-in or as a stand-alone Windows executable, can be used by designers, consultants and distributors to greatly reduce the time and effort that must be devoted to the selection process. The software provides quick and convenient selectable options for users, supports multiple languages, and greatly improves the selection process.

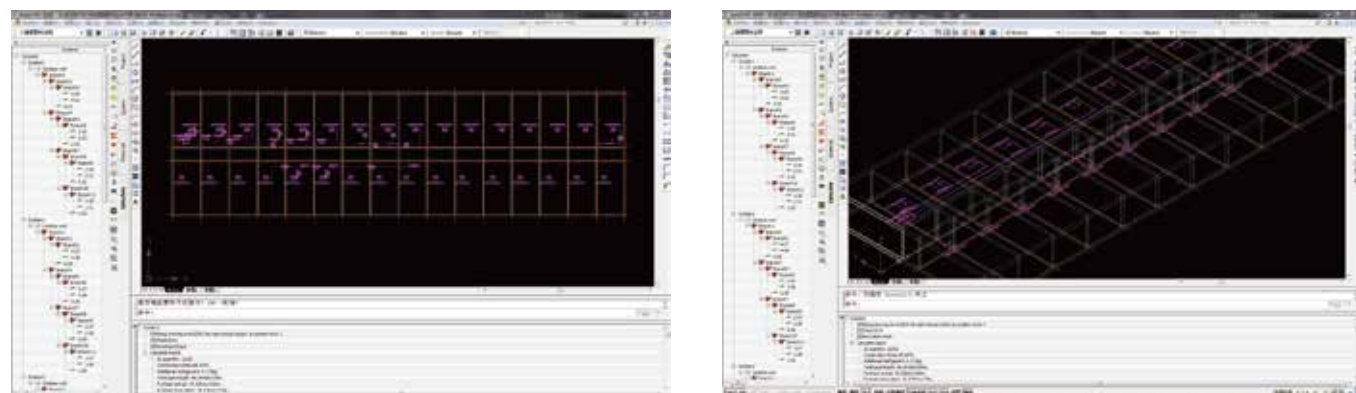
### Windows Version >>

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



### CAD Version >>

The CAD version is an AutoCAD add-on software, it automatically calculates required refrigerant/drain piping sizes, refrigerant charge requirement and branch joint configuration based on the cooling/heating requirements specified. The software checks that designs comply with local installation regulations and automatically produces piping installation diagrams, equipment lists and quotations.



## Mobile Applications

### Midea CAC News App >>

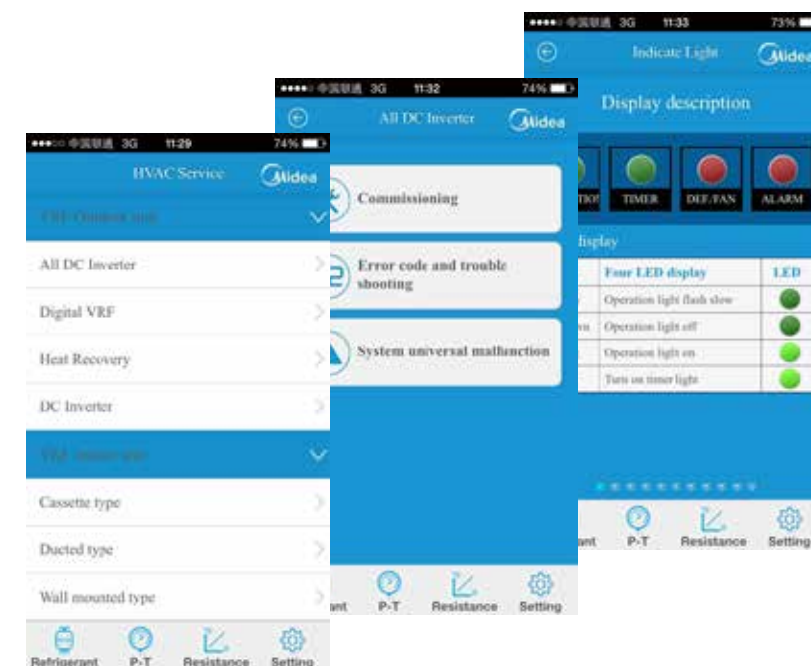
The Midea CAC News app is Midea CAC's mobile platform for sharing news, product information and training schedules.



iOS Version

### Midea CAC After-service App >>

The Midea CAC After-service app is a very useful tool for engineers during commissioning, refrigerant charging and troubleshooting.



Android Version



iOS Version



# HEAT RECOVERY VENTILATOR

## Alternative fan motor >>

Versions for AC/DC fan motors.

## Enhanced Efficiency >>

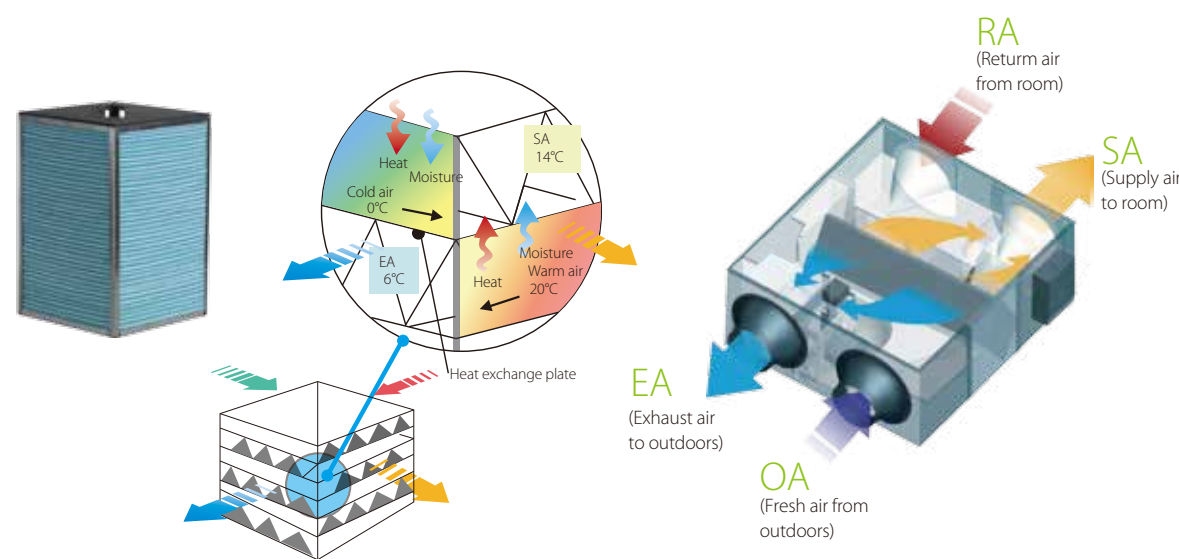
The Midea heat recovery ventilator (HRV) can greatly reduce energy losses and room temperature fluctuations caused by the ventilation process. The Midea HRV's strong performance is a result of the advanced technology incorporated into its design. The heat exchanger core is made of specially treated paper which gives enhanced temperature and humidity control. Temperature exchange efficiency is over 65% and enthalpy exchange efficiency is 50-65%.

### Model Names

HRV-200 HRV-500  
HRV-300 HRV-800  
HRV-400 HRV-1000



HRV-1500  
HRV-2000

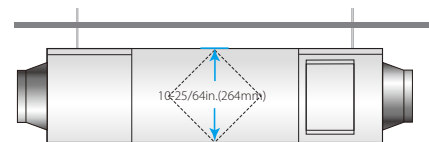


## Low noise >>

Soundproofing is used to guarantee quiet operation.

## Flexibility >>

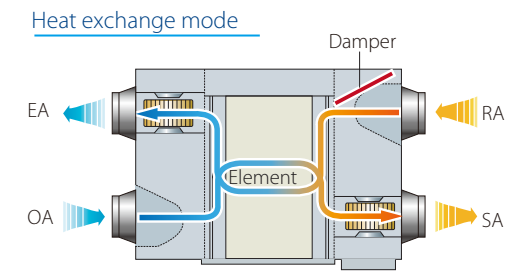
Heights starting from as little as 264mm and weights from as little as 23kg mean that the Midea HRV can be easily installed even where space is limited.



## Multiple Modes >>

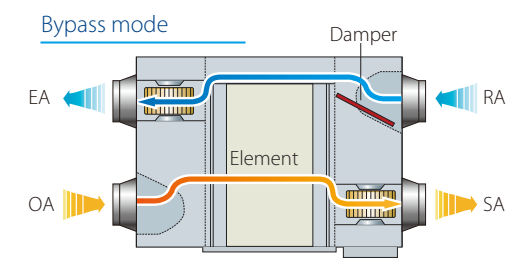
### Heat exchange mode

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 a form of bypass mode 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

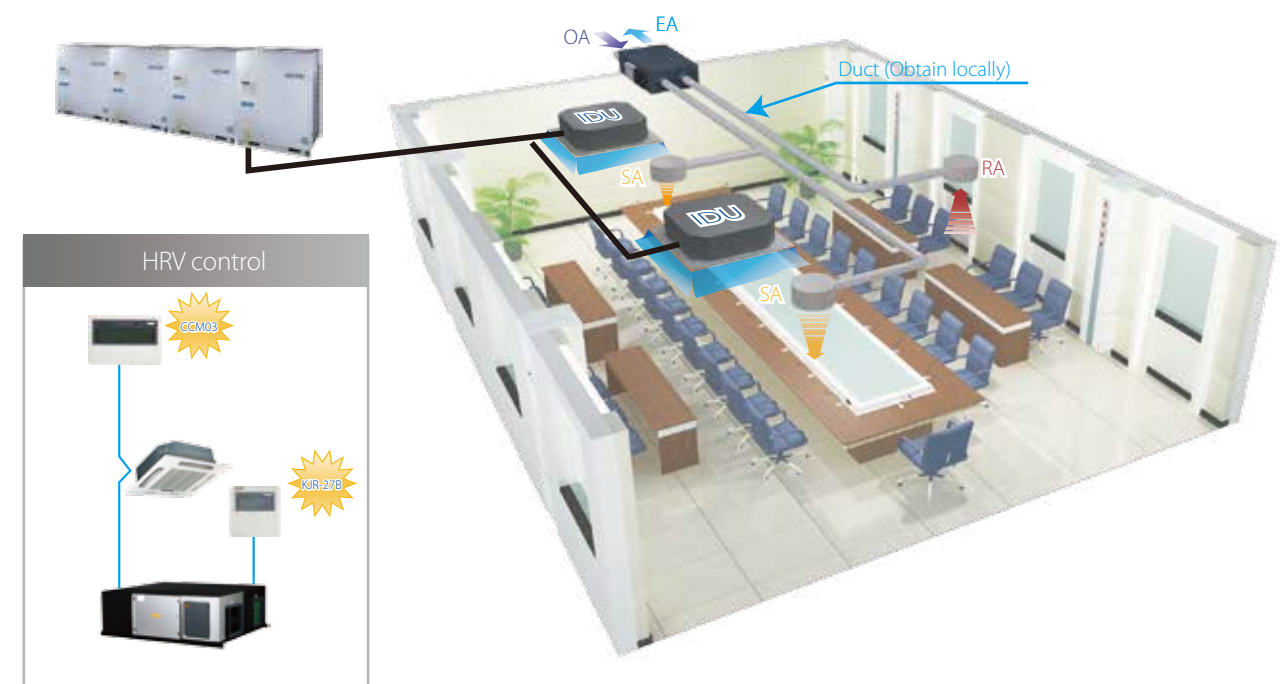
Exhaust mode is a form of bypass mode where the exhaust fan is set to run faster than the supply fan, which is useful in mild climate installations with large amounts of exhaust air to be expelled.

### 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.

## Flexible Control >>

HRV can be controlled together with other indoor units.



## Specifications

### AC fan motors

Model			HRV-200	HRV-300	HRV-400	HRV-500	
Power supply			1-phase,220-240V,50Hz				
Cooling	Temperature exchange efficiency	High	%	55	55	55	55
		Medium	%	55	55	55	55
	Enthalpy exchange efficiency	High	%	60	60	60	60
		Medium	%	50	50	50	50
Heating	Temperature exchange efficiency	High	%	60	60	60	65
		Medium	%	60	60	60	65
	Enthalpy exchange efficiency	High	%	65	65	65	70
		Medium	%	55	55	60	60
Sound pressure level	Heat exchange mode	High	dB(A)	27	30	32	35
		Medium	dB(A)	26	29	31	34
	Bypass mode	High	dB(A)	20	23	25	28
		Medium	dB(A)	28	31	33	36
Net dimension (WxDxH)			mm	866x655x264	944x722x270	944x927x270	1038x1026x270
Packing size (WxDxH)			mm	34-1/8x25-3/4x10-3/8	37-3/16x28-27/64x10-5/8	37-3/16x36-1/2x10-5/8	40-7/8x40-3/8x10-5/8
Net/gross weight			kg (lbs)	23/40 (50.6/88)	26/44 (57.2/96.8)	31/52 (68.3/114.4)	41/64 (90.4/140.8)
Casing			Galvanized steel plate				
Heat exchange system			Air to air cross flow total heat (sensible heat + latent heat) exchange				
Heat exchange element material			Specially processed nonflammable paper				
Fan			Centrifugal fan				
Fan	Airflow rate	High	m³/h (CFM)	200 (118)	300 (176)	400 (235.6)	500 (294.5)
		Medium	m³/h (CFM)	200 (118)	300 (176)	400 (235.6)	500 (294.5)
		Low	m³/h (CFM)	150 (88)	225 (132)	300 (176.7)	375 (220.8)
	ESP	High	Pa	75	75	80	80
		Medium	Pa	58	60	65	68
		Low	Pa	35	40	43	45
	Motor output	W		20	40	80	120
	Duct diameter			mm (in.)	Φ144 (5-5/8)	Φ144 (5-5/8)	Φ144 (5-5/8)
Operating temperature range			°C	-7~43 DB, 80% RH or less			
			°F	19.4~109.4 DB, 80% RH or less			

Model			HRV-800	HRV-1000	HRV-1500	HRV-2000	
Power supply			1-phase,220-240V,50Hz (1-phase,220V,60Hz)				
Cooling	Temperature exchange efficiency	High	%	55	55	55	55
		Medium	%	55	55	/	/
	Enthalpy exchange efficiency	High	%	60	60	/	/
		Medium	%	50	50	/	/
Heating	Temperature exchange efficiency	High	%	65	65	65	65
		Medium	%	65	65	/	/
	Enthalpy exchange efficiency	High	%	70	70	/	/
		Medium	%	60	60	60	60
Sound pressure level	Heat exchange mode	High	dB(A)	39	40	51	53
		Medium	dB(A)	38	39	/	/
	Bypass mode	High	dB(A)	32	33	/	/
		Medium	dB(A)	40	41	52	54
Net dimension (WxDxH)			mm	1286x1006x388	1286x1256x388	1600x1270x540	1650x1470x540
Packing size (WxDxH)			mm	50-5/8x39-5/8x15-1/4	50-5/8x49-7/16x15-1/4	63x50x21-1/4	65x57-7/8x21-1/4
Net/gross weight			kg (lbs)	1380x1100x573	1400x1370x573	1710x1410x720	1760x1610x720
Casing			Galvanized steel plate				
Heat exchange system			Air to air cross flow total heat (sensible heat + latent heat) exchange				
Heat exchange element material			Specially processed nonflammable paper				
Fan			Centrifugal fan				
Fan	Airflow rate	High	m³/h (CFM)	800 (471.1)	1000 (588.2)	1500 (882.4)	2000 (1176.5)
		Medium	m³/h (CFM)	800 (471.1)	1000 (588.2)	/	/
		Low	m³/h (CFM)	600 (353.4)	750 (441.2)	/	/
	ESP	High	Pa	100	100	160	170
		Medium	Pa	82	85	/	/
		Low	Pa	54	58	/	/
	Motor output	W		360	360	450	450
	Duct diameter			mm (in.)	Φ242 (9-1/2)	Φ242 (9-1/2)	346x326 (13-5/8x12-7/8)
Operating temperature range			°C	-7~43 DB, 80% RH or less			
			°F	19.4~109.4 DB, 80% RH or less			

Note:  
 1. For the units model of HRV (200-1000), there are 3-speed adjustable air volume (Hi, Med, Low), but the fan speed of models HRV-1500 and HRV-2000 is not adjustable.  
 2. Sound level is measured 1.4m below the center of the unit in an anechoic chamber.  
 3. Efficiency is measured under the following conditions:  
 \* Cooling: air exhaust temp 27°C (80.6°F) DB, 19.5°C (67.1°F) WB; fresh air temp. 35°C (95°F) DB, 28°C (82.4°F) WB.  
 \* Heating: air exhaust temp 21°C (69.8°F) DB, 13°C (55.4°F) WB; fresh air temp. 5°C (41°F) DB, 2°C (35.6°F) WB.

### DC fan motors

Sale Model		HRV-D200	HRV-D300	HRV-D400	HRV-D500	
Power supply		V-Ph-Hz	1-phase,220-240V,50/60Hz			
Cooling	Temp. exchange efficiency	%	76.1	74.8	76.2	76.1
	Enthalpy exchange efficiency	%	77.3	76.1	78.7	78.2
Heating	Temp. exchange efficiency	%	76.1	74.8	76.2	76.1
	Enthalpy exchange efficiency	%	82.6	79.8	83.6	80.4
Input power		W	61	98	109	170
Current		A	0.72	0.99	1.07	1.56
Indoor fan motor	Model		WZDK100-38G-1	WZDK100-38G-1	WZDK100-38G-1	WZDK100-38G-1
	Insulation class		E			
	Output	W	26*2	42*2	46*2	72*2
	Pole number		8P	8P	8P	8P
Indoor fan	Speed	r/min	1390	1390	1390	1380
	material		ABS			
	Type		Centrifugal fan			
	Diameter	mm	Φ154	Φ194	Φ194	Φ203
Indoor external static pressure (Hi)		Pa	75	75	80	80
Nominal air flow		m³/h	200	300	400	500
Sound pressure level		dB(A)	27	30	32	35
Net dimension (LxWxH)		mm	852x665x264	928x734x270	928x940x270	1020x1036x270
Packing size (LxWxH)		mm	930x730x445	1010x800x450	1010x1010x450	1120x1120x452
Net/Gross weight		kg	25/40	27/44	32/52	35/60
Power supply wire	Wire's qty		3	3	3	3
	Code wire cross section	mm²	2.5	2.5	2.5	2.5
Controller			Wired controller			
Fresh Air Diameter		mm	Φ144	Φ144	Φ144	Φ194
Operating temperature range		°C	-7~43DB, 80%RH or less			

Sale Model		HRV-D800	HRV-D1000	HRV-D1500	HRV-D2000	
Power supply		V-Ph-Hz	1-phase,220-240V,50/60Hz			
Cooling	Temp. exchange efficiency	%	76.9	75.8	77.8	77.2
	Enthalpy exchange efficiency	%	78.1	76.9	79.2	78.7
Heating	Temp. exchange efficiency	%	76.9	75.8	77.8	77.2
	Enthalpy exchange efficiency	%	80.1	78.6	80.5	80.3
Input power		W	246	360	725	1340
Current		A	2.28	3.1	5.29	9.11
Indoor fan motor	Model		WZDK170-38G-2	WZDK170-38G-2	WZDK750-38G-W-1	WZDK750-38G-W-1
	Insulation class		E			
	Output	W	104*2	153*2	308*2	570*2
	Pole number		8P	8P	8P	8P
Indoor fan	Speed	r/min	1150	1230	1220	1390
	material		ABS		metal	
	Type		Centrifugal fan			
	Diameter	mm	Φ245	Φ245	Φ234	Φ234
Indoor external static pressure (Hi)		Pa	203	203	261	261
Nominal air flow		m³/h	800	1000	1500	2000
Sound pressure level		dB(A)	39	40	51	53
Net dimension (LxWxH)		mm	1276x1020x388	1276x1269x388	1600x1270x540	1650x1470x540
Packing size (LxWxH)		mm	1380x1100x573	1390x1350x580	1680x1350x720	1760x1580x720
Net/Gross weight		kg	58/88	69/100	151/224	165/247
Power supply wire	Wire's qty		3	3	3	3
	Code wire cross section	mm²	2.5	2.5	2.5	2.5
Controller			Wired controller			
Fresh Air Diameter		mm	Φ242	Φ242	346x326	346x326
Operating temperature range		°C	-7~43DB, 80%RH or less			

Note:  
 1. For the units model of HRV-D200~HRV-D2000, there are 3-speed adjustable air-volume (Hi, Med, Low).  
 2. All the parameters is measured at the high speed air-volume.  
 3. Sound level is measured 1.4m below the center of the unit in an anechoic chamber.  
 4. Efficiency is measured under the following conditions:  
 \* Cooling: air exhaust temp 27°C (80.6°F) DB, 19.5°C (67.1°F) WB; fresh air temp. 35°C (95°F) DB, 28°C (82.4°F) WB.  
 \* Heating: air exhaust temp 21°C (69.8°F) DB, 13°C (55.4°F) WB; fresh air temp. 5°C (41°F) DB, 2°C (35.6°F) WB.

# BRANCH JOINTS

Appearance	Model	Packed Dimensions mm (in.)	Gross Weight kg (lbs.)	Two-pipe refrigerant system branch joints
	FQZHW-02N1D	255×150×185 (10-1/16×5-7/8×7-1/4)	1.5(3.3)	Connecting two outdoor units
	FQZHW-03N1D	345×160×285 (13-9/16×6-5/16×11-1/4)	3.4(7.48)	Connecting three outdoor units
	FQZHW-04N1D	475×165×300 (18-3/4×6-1/2×11-3/4)	4.8(10.56)	Connecting four outdoor units
	FQZHN-01D	290×105×100 (11-7/16×4-1/8×4)	0.4(0.88)	$A^* < 16.6\text{kW}$
	FQZHN-02D	290×105×100 (11-7/16×4-1/8×4)	0.6(1.32)	$16.6 \leq A^* < 33\text{kW}$
	FQZHN-03D	310×130×125 (12-3/16×5-1/8×4-15/16)	0.9(1.98)	$33\text{kW} \leq A^* < 66\text{kW}$
	FQZHN-04D	350×180×170 (13-25/32×7-3/32×6-11/16)	1.5(3.3)	$66\text{kW} \leq A^* < 92\text{kW}$
	FQZHN-05D	365×195×215 (14-3/8×7-11/16×8-15/32)	1.9(4.18)	$92\text{kW} \leq A^*$

\* A = Total capacity of indoor units connected to this branch joint

## Dimensions

### Outdoor branch joints

Model	Gas side joints	Liquid side joints
FQZHW-02N1D		
FQZHW-03N1D		
FQZHW-04N1D		

BRANCH PIPE

BRANCH PIPE



### Indoor branch joints

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

BRANCH PIPE

BRANCH PIPE