

**Fujiair**

AIR - CONDITIONERS



**FMV Series**  
**VRF Air-Conditioners**  
**50Hz/60Hz R410a**



# CONTENT

## OUTDOOR UNITS

### VRF **M**ini Series 07-10

Heat pump, cannot be combined 3~6.5HP  
DC inverter compressor All DC fan motors

### VRF **S**eries 11-12

Heat pump Max. 4 modules can be combined  
8~72HP All DC inverter compressors All DC fan motors

### VRF **K** Series 13-14

Heat pump/Cooling only Max. 4 modules can be combined  
8~72HP DC inverter compressor + fixed compressors  
Heat pump series: All DC fan motors  
Cooling only series: DC fan motor + AC fan motor

### VRF **I** Series 15-16

Heat pump, cannot be combined 7~32HP  
DC inverter compressor + fixed compressors  
DC fan motor + AC fan motor

### VRF **R** Series 17-18

Heat recovery Simultaneous cooling and heating  
operation in one system Max. 4 modules can be combined  
8~64HP All DC inverter compressors All DC fan motors

## INDOOR UNITS

Two-way Cassette  
Cooling Capacity: 2.2kW-7.1kW

19

Four-way Cassette  
Compact Four Way Cassette 1.5kW-4.5kW; Four Way Cassette & Silent Type: 2.8kW-14kW

21

Low Static Pressure Duct  
Cooling Capacity: 1.8kW-7.1kW

24

Medium Static Pressure Duct  
Cooling Capacity: 1.5kW-14kW

25

High Static Pressure Duct  
Cooling Capacity: 7.1kW-56kW

26

Fresh Air Processing Unit  
Cooling Capacity: 12.5kW-28kW

28

Wall-mounted  
Cooling Capacity(K): 2.2kW-9kW & Cooling Capacity(S) 1.5kW-5.6kW

29

Ceiling & Floor  
Cooling Capacity: 3.6kW-16kW

31

# Features



## Advanced Technologies

### High Efficiency DC Inverter Compressor

Fujiair VRF Air Conditioner achieves the industry's top class energy efficiency in cooling and heating by utilizing DC inverter compressor, DC fan motor, and high efficiency heat exchanger.

The DC inverter compressor adopts innovative design and numerous high performance key parts which can reduce power consumption by 25%.



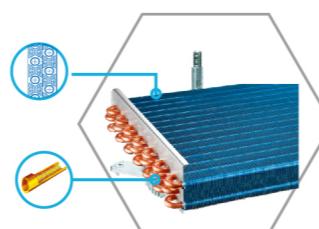
### High Efficiency DC Fan Motor

The system controls the speed of the fan motor according to the system pressure and system load achieving the minimum power consumption.



### High Efficiency Heat Exchanger

Newly designed window type 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.



### Double EXVs Control

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



### Newly Designed Fan

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

### Multi Solenoid Valves Control

Multi solenoid valves control technology in one system. All the solenoid valves equipped in the unit ensure precise temperature control, stable and efficient running conditions and improved comfort.

## Wide Application Range

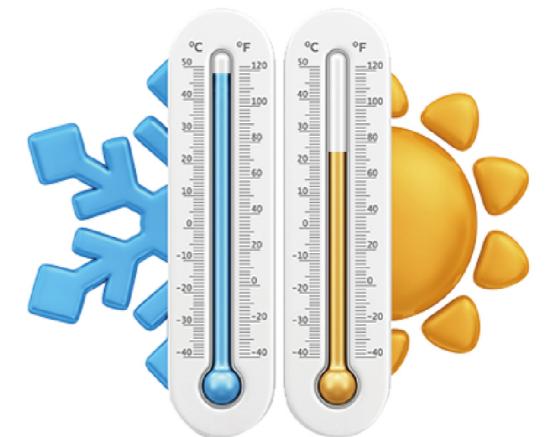
### Wide Capacity Range

Fujiair VRF has extensive capacity ranging from 3HP to 72HP, meets all customer requirement concerning small to large buildings.



### Wide Range of Indoor Units

Fujiair provides various types and more than 100 models of VRF indoor units maximum meeting varied customer requirements. It widely applied in market, hospital, office building, hotel, airport, etc..



### Wide Operation Range

The VRF system operates stably under extreme conditions, ranging from minus 20°C to 48°C.

#### COOLING MODE

Ranging from minus 5°C to 48°C.

#### HEATING MODE\*

Ranging from minus 20°C to 24°C.

\*HEATING MODE is only available for heat pump series.

## High Reliability

### Cycle Duty Operation

The cyclical start-up sequence of outdoor units and DC inverter compressors equalized compressor duty and extends operating life.

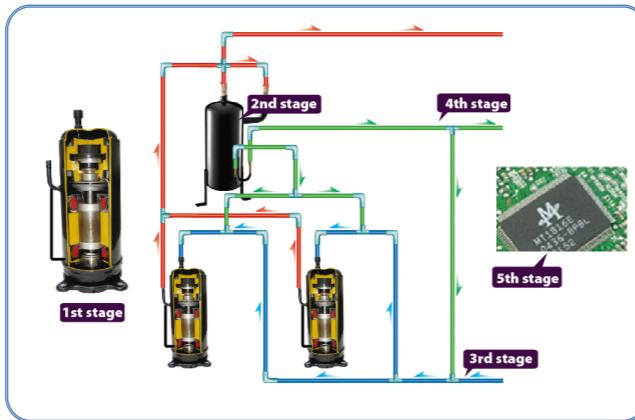
### Backup Operation

In a multiple system, if one module is failed, other modules can be backup instead of the failed one for continuing operation.

## Precise Oil Control Technology

5 stages oil control technology ensures all outdoor unit and compressor oil is always kept at a safe level, completely solving any compressor oil shortage problems.

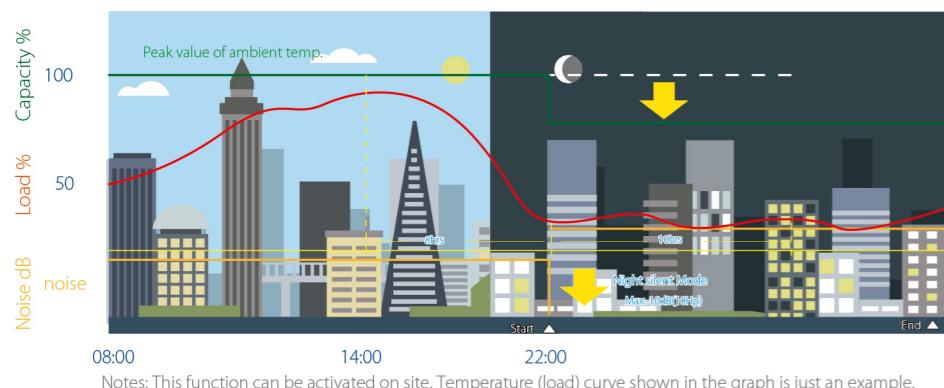
- 1st stage:** Compressor internal oil separation.
- 2nd stage:** High efficiency centrifugal oil separator (separation efficiency up to 99%) ensures oil separated from the discharge gas is returned to the compressors.
- 3rd stage:** Oil balance pipes between compressors ensure even oil distribution to keep compressors running normally.
- 4th stage:** Oil balance pipes among modules ensure even oil distribution among modules.
- 5th stage:** Auto oil return program by monitoring the running time and system status ensures reliable oil return.



## Enhanced Comfort

### Night Silent Operation Mode

Night Silent Mode feature which is easily set on the PCB board allows the unit to be set to various time options during Non-peak and Peak operation time minimizing the units noise output.



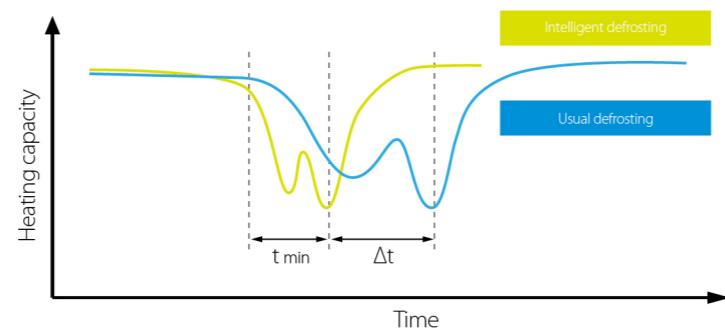
Night Silent operation will be activated X hours after the peak daytime temperature, and it will go back to normal operation after Y hours.

- Mode 1→X: 6 hours, Y: 10 hours
- Mode 2→X: 8 hours, Y: 10 hours
- Mode 3→X: 6 hours, Y: 12 hours
- Mode 4→X: 8 hours, Y: 8 hours

### Intelligent Defrosting Technology

Intelligent defrosting program will judge the defrosting time according to the system real requirement, reduce heating loss caused by unnecessary defrosting and create more comfort. Defrosting time can be shortened to 4 min. due to the specialized defrosting valve.

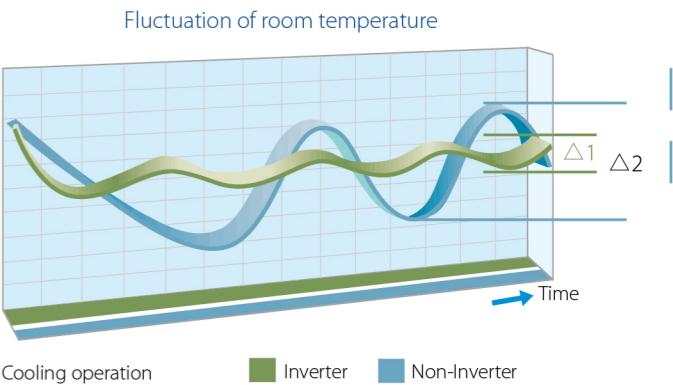
\*This function is only available for heat pump series.



### Rapid Warm Up and Cool Down Function

The DC Inverter Compressor system reaches full load rapidly providing less temperature fluctuation and an improved living environment.

No matter when it is as high as 48 °C hot summer or -20°C in the cold winter, the unit could operate perfectly, making you feel like spring all year around.



## Easy Installation and Service

### Auto Addressing

Outdoor unit can distribute addresses for indoor units automatically. Wireless and wired controllers can query and modify each indoor unit's address.



### Simple Communication Wiring

Centralized controller can be connected from indoor side or outdoor side (XYE terminals) at will.

With one set of wires, we can achieve the network communication and system communication, making installation at site more convenient.



### Easy Maintenance

Inspection window for checking the systems status.

Self-diagnosis function helps service engineers locate faults quickly and easily.

Compressor is located near the door, which simplifies checks and enables valve or compressor parts to be replaced easily.



## Fujair Unified Branch Piping

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



Outdoor branch joint



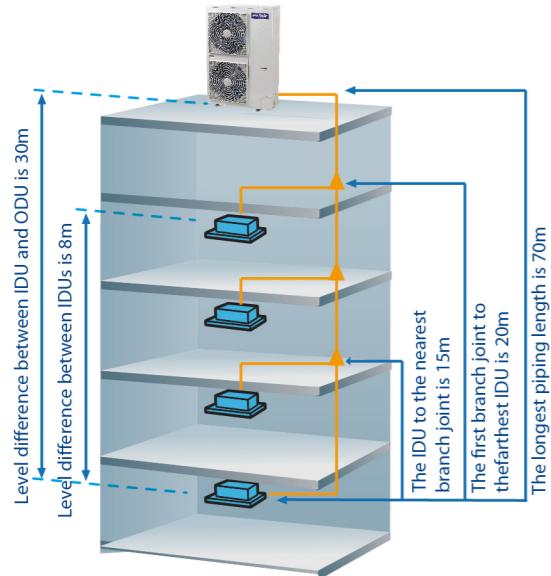
Indoor branch joint



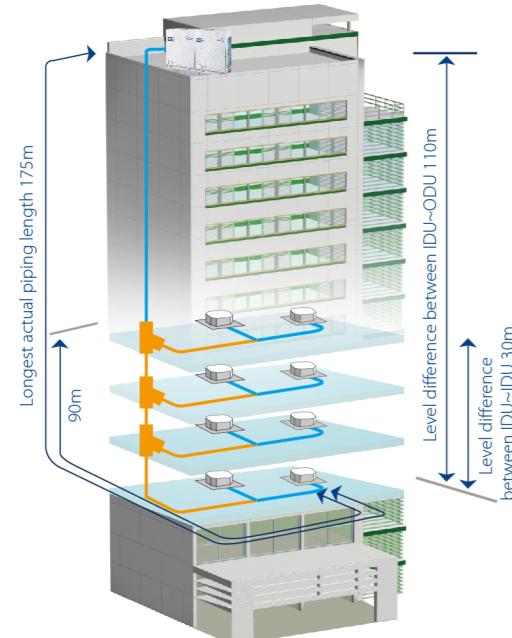
Indoor branch box

\*Indoor branch box is only available for Mini VRF Series.

## Long Piping Length



	8-10.5kW	12-18kW
Total piping length	100m	100m
Longest length actual (Equivalent)	45(50)m	60(70)m
Longest length after first branch	20m	20m
Level difference between indoor and outdoor units - ODU up (down)	30(20)m	30(20)m
Level difference between indoor units	8m	8m

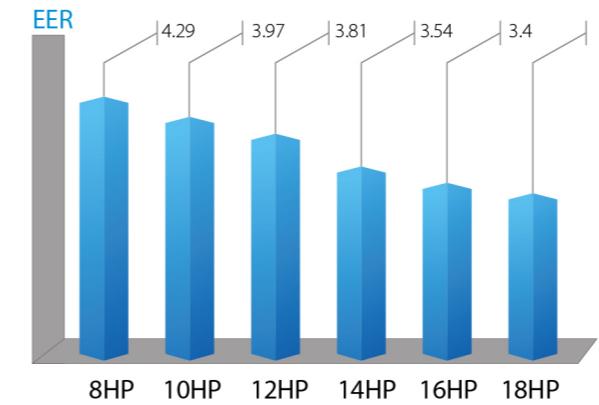


Total piping length	1000m
Longest length actual (Equivalent)	175(200)m
Longest length after first branch	90*m
Longest length from MS to its downstream indoor unit	40m
Level difference between indoor and outdoor units - ODU up (down)	70(110)m
Level difference between indoor units	30m

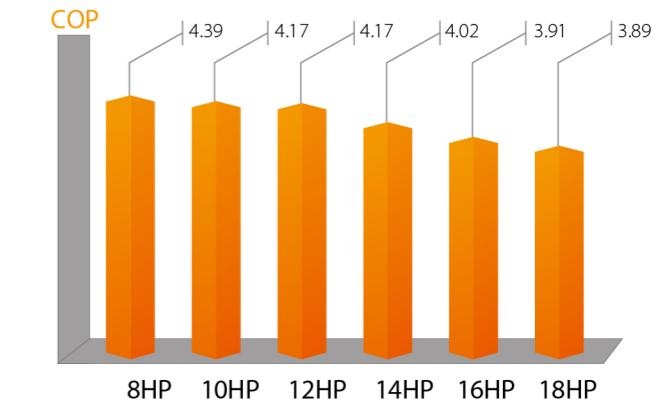
\*The longest piping length is 40m standard. It can be extended to 90m. When the length is over 40m, please contact your local Fujair dealer for more information and restrictions.

## High EER and COP Values

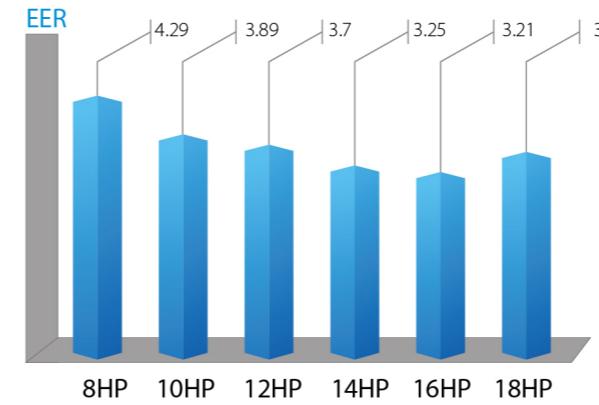
S Series equipped with all DC compressors, all DC fan motors and high efficient heat exchanger. The cooling EER is up to 4.29 and the heating COP is up to 4.39 in the 8HP category.



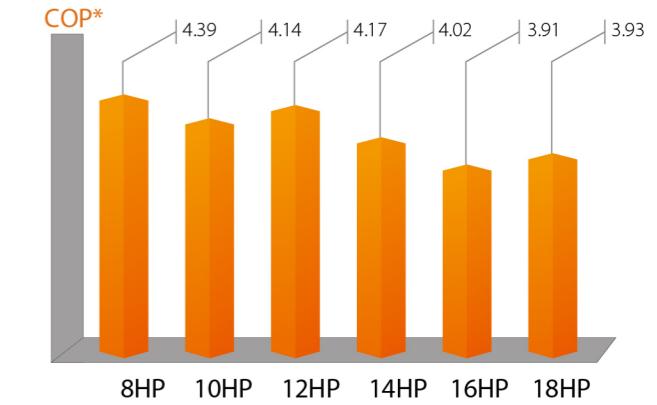
\*50Hz/60Hz heat pump



K Series: the cooling EER is up to 4.29 and the heating COP is up to 4.39 in the 8HP category.

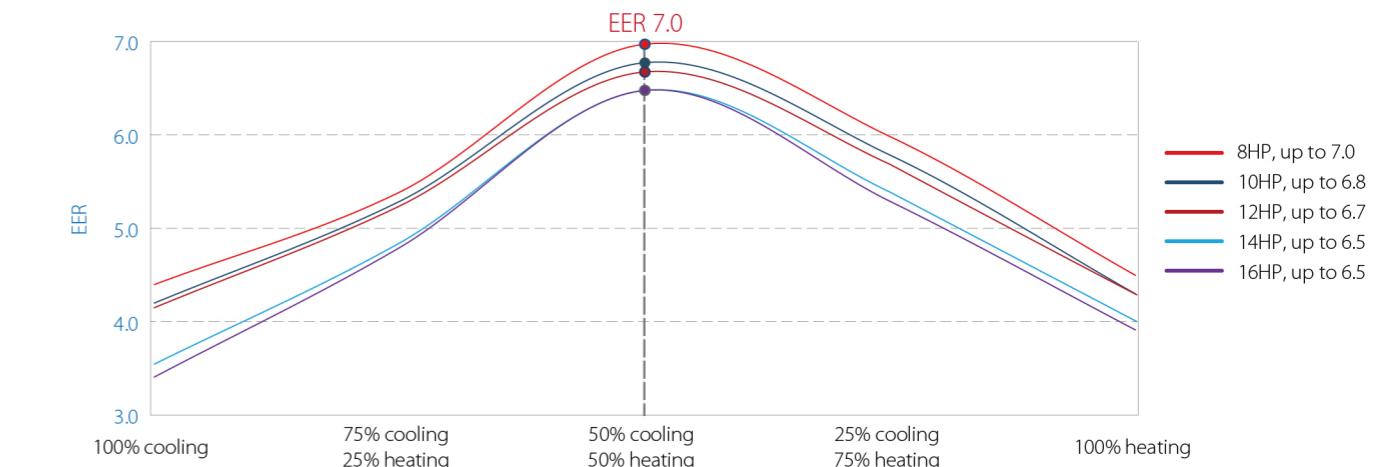


\*50Hz cooling only or heat pump



## Heat Recovery, EER up to 7.0

Heat recovery R series is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating, maximizing energy efficiency, reducing electricity costs and leading to high partload efficiencies (up to 7.0 in the 8HP category).



# Technical Specification



## Mini Series - Heat Pump

**220-240/1/50**  
Power Supply



HP	3	4	4.5	5	6	
Model FMV-	80WHM	105WHM	120WHM	140WHM	160WHM	
Power supply	V/Ph/Hz	220-240/1/50				
Cooling	Capacity	kW	8.0	10.5	12.3	
	Power input	kW	2.05	2.68	3.25	
	EER		3.90	3.92	3.78	
Heating	Capacity	kW	9.0	11.5	13.2	
	Power input	kW	2.24	2.90	3.47	
	COP		4.02	3.97	3.8	
Connectable	Total capacity	45~130% of outdoor unit capacity				
indoor unit	Max. quantity	4	5	6	6	
Compressor	Type	Rotary				
	Quantity	1	1	1	1	
Fan motor	Type	DC Motor				
	Quantity	1	1	2	2	
Refrigerant	Type	R410A				
	Factory charging	kg	2.8	2.95	3.3	
Pipe	Liquid pipe	mm	Φ9.53	Φ9.53	Φ9.53	
	Gas pipe	mm	Φ15.9	Φ15.9	Φ15.9	
Air flow rate	m³/h	5500	5500	6000	6000	
Sound pressure level	dB(A)	56	57	57	57	
Net dimension (WxHxD)	mm	1075x966x396		900x1327x400		
Packing size (WxHxD)	mm	1120x1100x435		1030x1456x435		
Net weight	kg	62	74	95	100	
Gross weight	kg	67	81	106	111	
Operating temperature range	°C	Cooling: -15~43; Heating: -15~27				

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB; Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

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

## Mini Series - Heat Pump

**380-415/3/50**  
Power Supply



HP	4.5	5	6	6.5
Model FMV-	120WHM2	140WHM2	160WHM2	180WHM2
Power supply	V/Ph/Hz	380-415/3/50		
Cooling	Capacity	kW	12.3	14
	Power input	kW	3.25	3.95
	EER		3.78	3.54
Heating	Capacity	kW	13.2	15.4
	Power input	kW	3.47	4.16
	COP		3.8	3.7
Connectable	Total capacity	45~130% of outdoor unit capacity		
indoor unit	Max. quantity		6	6
Compressor	Type	Rotary		
	Quantity		1	1
Fan motor	Type	DC motor		
	Quantity		2	2
Refrigerant	Type	R410A		
	Factory charging	kg	3.3	3.9
Pipe	Liquid pipe	mm	Φ9.53	Φ9.53
connections	Gas pipe	mm	Φ15.9	Φ15.9
Air flow rate	m³/h		6000	6000
Sound pressure level	dB(A)		57	57
Net dimension (WxHxD)	mm	900x1327x400		
Packing size (WxHxD)	mm	1030x1456x435		
Net weight	kg	95		
Gross weight	kg	106		
Operating temperature range	°C	Cooling: -15~43; Heating: -15~27		

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB; Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

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

## Mini Series - Heat Pump

**208-230/1/60**  
Power Supply



HP		4	4.5	5	6	
Model FMV-		105WHM3	120WHM3	140WHM3	160WHM3	
Power supply		V/Ph/Hz	208-230/1/60			
Cooling	Capacity	kW	10.5	12.0	14.0	15.5
		kBtu/h	35.8	40.9	47.8	52.9
	Power input	kW	2.68	3.25	3.95	4.52
	EER		3.92	3.69	3.54	3.43
Heating	Capacity	kW	11.5	13.2	15.4	17.0
		kBtu/h	39.2	45.0	52.5	58.0
	Power input	kW	2.90	3.47	4.16	4.77
	COP		3.97	3.80	3.70	3.56
Connectable	Total capacity	45~130% of outdoor unit capacity				
indoor unit	Max. quantity	5	6	6	7	
Compressor	Type	Rotary				
	Quantity	1	1	1	1	
Fan motor	Type	DC motor				
	Quantity	1	2	2	2	
Refrigerant	Type	R410A				
	Factory charging	kg(lbs.)	3(6.6)	3.3(7.3)	3.9(8.6)	3.9(8.6)
Pipe	Liquid pipe	mm(in.)	Φ9.53(Φ3/8)	Φ9.53(Φ3/8)	Φ9.53(Φ3/8)	Φ9.53(Φ3/8)
connections	Gas pipe	mm(in.)	Φ15.9(Φ5/8)	Φ15.9(Φ5/8)	Φ15.9(Φ5/8)	Φ19.1(Φ3/4)
Air flow rate	m³/h	5100	6000	6000	6000	
Sound pressure level	dB(A)	57	57	57	57	
Net dimension (WxHxD)	mm	1075x966x396	900x1327x400	900x1327x400	900x1327x400	
	inch	42-21/64 x38-1/32 x15-19/32	35-7/14x52-1/4x15-3/4	35-7/14x52-1/4x15-3/4	35-7/14x52-1/4x15-3/4	
Packing size (WxHxD)	mm	1120x1100x435	1030x1456x435	1030x1456x435	1030x1456x435	
	inch	44-3/32 x43-5/16 x17-1/8	40-9/16x57-5/16x17-1/8	40-9/16x57-5/16x17-1/8	40-9/16x57-5/16x17-1/8	
Net weight	kg(lbs.)	78(171.9)	95(209.4)	95(209.4)	102(224.9)	
Gross weight	kg(lbs.)	85(187.3)	106(233.7)	106(233.7)	113(249.1)	
Operating temperature range	°C(°F)	Cooling -15~43°C (5~109.4°F) Heating -15~27°C(5~80.6°F)				

Notes:

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°F) DB/24°C(75.2°F) WB.  
Heating: Indoor temperature 20°C(68°F) DB/15°C(59°F) WB; Outdoor temperature 7°C(44.6°F) DB/6°C(42.8°F) WB.  
Piping length: Interconnecting piping length is 7.5m(24.6ft), level difference is zero.  
Sound values are measured in a semi-anechoic room, at a position of 1m(3.28ft) in front of the unit and 1m(3.28ft) above the floor.

## Mini Series - Heat Pump

**308-415/3/60**  
Power Supply



HP		4.5	5	6	
Model FMV-		120WHM4	140WHM4	160WHM4	
Power supply		V/Ph/Hz	380-415/3/60		
Cooling	Capacity	kW	12.0	14.0	15.5
		kBtu/h	40.9	47.8	52.9
	Power input	kW	3.25	3.95	4.52
	EER		3.69	3.54	3.43
Heating	Capacity	kW	13.2	15.4	17.0
		kBtu/h	45.0	52.5	58.0
	Power input	kW	3.47	4.16	4.77
	COP		3.8	3.7	3.56
Connectable	Total capacity	45~130% of outdoor unit capacity			
indoor unit	Max. quantity	6	6	7	
Compressor	Type	Rotary			
	Quantity	1	1	1	
Fan motor	Type	DC motor			
	Quantity	2	2	2	
Refrigerant	Type	R410A			
	Factory charging	kg(lbs.)	3.3(7.3)	3.9(8.6)	3.9(8.6)
Pipe	Liquid pipe	mm(in.)	Φ9.53(Φ3/8)	Φ9.53(Φ3/8)	Φ9.53(Φ3/8)
connections	Gas pipe	mm(in.)	Φ15.9(Φ5/8)	Φ15.9(Φ5/8)	Φ19.1(Φ3/4)
Air flow rate	m³/h	6983	6500	6000	
Sound pressure level	dB(A)	57	57	57	
Net dimension (WxHxD)	mm	900x1327x400			
	inch	35-7/14x52-1/4x15-3/4			
Packing size (WxHxD)	mm	1030x1456x435			
	inch	40-9/16x57-5/16x17-1/8			
Net weight	kg(lbs.)	92(203)	95(209.4)	102(224.9)	
Gross weight	kg(lbs.)	106(234)	106(233.7)	113(249.1)	
Operating temperature range	°C(°F)	Cooling -15~43°C (5~109.4°F) Heating -15~27°C(5~80.6°F)			

Notes:

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°F) DB/24°C(75.2°F) WB.  
Heating: Indoor temperature 20°C(68°F) DB/15°C(59°F) WB; Outdoor temperature 7°C(44.6°F) DB/6°C(42.8°F) WB.  
Piping length: Interconnecting piping length is 7.5m(24.6ft), level difference is zero.  
Sound values are measured in a semi-anechoic room, at a position of 1m(3.28ft) in front of the unit and 1m(3.28ft) above the floor.

# VRF S Series - Heat Pump

**380-415/3/50**  
Power Supply

**380-415/3/60**  
Power Supply

**220/3/60**  
Power Supply

HP	8	10	12	14	16	18	
Model FMV-							
Power supply	252(8)WHS	280(10)WHS	335(12)WHS	400(14)WHS	450(16)WHS	500(18)WHS	
Cooling	V/Ph/Hz	380-415/3/50&380-415/3/60&220/3/60					
Capacity	kW	25.2	28.0	33.5	40.0	45.0	
Power input	kW	5.88	7.05	8.79	11.30	13.25	
EER		4.29	3.97	3.81	3.54	3.40	
Heating	Capacity	kW	27.0	31.5	37.5	45.0	
	Power input	kW	6.15	7.55	8.99	11.19	
	COP		4.39	4.17	4.17	4.02	
Connectable indoor unit	Total capacity		50~130% of outdoor unit capacity				
	Max. quantity	13	16	20	23	26	29
Compressor	Type		DC inverter				
Fan motor	Quantity	1	1	2	2	2	2
	Type		DC motor				
	Quantity	1	1	2	2	2	2
	Static pressure	Pa	0~20 (default)				
Refrigerant	Type		R410A				
	Factory charging	kg	10	10	12	15	15
Pipe connections	Liquid pipe	mm	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ19.1
	Gas pipe	mm	Φ25.4	Φ25.4	Φ31.8	Φ31.8	Φ31.8
	Oil balance pipe	mm	Φ6	Φ6	Φ6	Φ6	Φ6
Air flow rate	m³/h	11242	11242	13000	15620	15620	15620
Sound pressure level	dB(A)	57	57	59	61	62	62
Net dimension (WxHxD)	mm	960x1615x765					1250x1615x765
Packing size (WxHxD)	mm	1025x1790x830					1305x1790x820
Net weight	kg	212	212	288	288	288	310
Gross weight	kg	227	227	308	308	308	330
Operating temperature range	°C	Cooling: -5~48; Heating: -20~24					

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB; Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

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

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

Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.



## Outdoor Unit Combination

Capacity (HP)	Model	Combination	Photo
20	FMV-560(20)WHS	10HPx2	
22	FMV-615(22)WHS	10HP+12HP	
24	FMV-680(24)WHS	10HP+14HP	
26	FMV-730(26)WHS	10HP+16HP	
28	FMV-780(28)WHS	10HP+18HP	
30	FMV-850(30)WHS	14HP+16HP	
32	FMV-900(32)WHS	14HP+18HP	
34	FMV-950(34)WHS	16HP+18HP	
36	FMV-1000(36)WHS	18HPx2	
38	FMV-1060(38)WHS	10HPx2+18HP	
40	FMV-1130(40)WHS	10HP+14HP+16HP	
42	FMV-1180(42)WHS	10HP+16HPx2	
44	FMV-1230(44)WHS	10HP+16HP+18HP	
46	FMV-1280(46)WHS	10HP+18HPx2	
48	FMV-1350(48)WHS	14HP+16HP+18HP	
50	FMV-1400(50)WHS	14HP+18HPx2	
52	FMV-1450(52)WHS	16HP+18HPx2	
54	FMV-1500(54)WHS	18HPx3	
56	FMV-1560(56)WHS	10HPx2+18HPx2	
58	FMV-1630(58)WHS	10HP+14HP+16HP+18HP	
60	FMV-1680(60)WHS	10HP+14HP+18HPx2	
62	FMV-1730(62)WHS	10HP+16HP+18HPx2	
64	FMV-1780(64)WHS	10HP+18HPx3	
66	FMV-1850(66)WHS	14HP+16HP+18HPx2	
68	FMV-1900(68)WHS	14HP+18HPx3	
70	FMV-1950(70)WHS	16HP+18HPx3	
72	FMV-2000(72)WHS	18HPx4	

# VRF K Series - Heat Pump/Cooling Only

**380-415/3/50**  
Power Supply

Model (Heat pump series) FMV- Model (Cooling only series) FMV-		8 252(8)WHK 252(8)WCK	10 280(10)WHK 280(10)WCK	12 335(12)WHK 335(12)WCK	14 400(14)WHK 400(14)WCK	16 450(16)WHK 450(16)WCK	18 500(18)WHK 500(18)WCK
Power supply							
Capacity	kW	25.2	28.0	33.5	40.0	45.0	50.0
Power input	kW	5.88	7.20	9.05	12.31	14.02	15.20
EER		4.29	3.89	3.70	3.25	3.21	3.29
Capacity	kW	27.0	31.5	37.5	45.0	50.0	56.0
Power input	kW	6.15	7.61	8.99	11.19	12.79	14.25
COP		4.39	4.14	4.17	4.02	3.91	3.93
Connectable indoor unit	Total capacity		50~130% of outdoor unit capacity				
Max. quantity	13	16	20	23	26	29	
Compressor	Type	DC inverter+Fixed					
Quantity	1	1	1+1	1+1	1+1	1+1	
Type	All DC motors for Heat pump series; DC+AC for Cooling only series						
Quantity	1	1	1+1	1+1	1+1	1+1	
Static pressure	Pa	0~20 (default)					
Type	Pa	20~40 (customized)					
Factory charging	kg	9	9	11	13	13	16
Pipe connections	Liquid pipe	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9	Φ19.1
	Gas pipe	Φ25.4	Φ25.4	Φ31.8	Φ31.8	Φ31.8	Φ31.8
	Oil balance pipe	Φ6					
Air flow rate	m³/h	11500	11500	15100	15100	15250	15250
Sound pressure level	dB(A)	57	57	59	60	60	61
Net dimension (WxHxD)	mm	960×1615×765					
Packing size (WxHxD)	mm	1025×1790×830					
Net weight (Heat pump series)	kg	200	200	268	280	280	300
Gross weight (heat pump series)	kg	215	215	288	300	300	320
Net weight (Cooling only series)	kg	198	198	268	280	280	300
Gross weight (Cooling only series)	kg	213	213	288	300	300	320
Operating temperature range	°C	Cooling: -5~40; Heating*: -20~24					

Notes:

Capacities are based on the following conditions:  
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB; Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

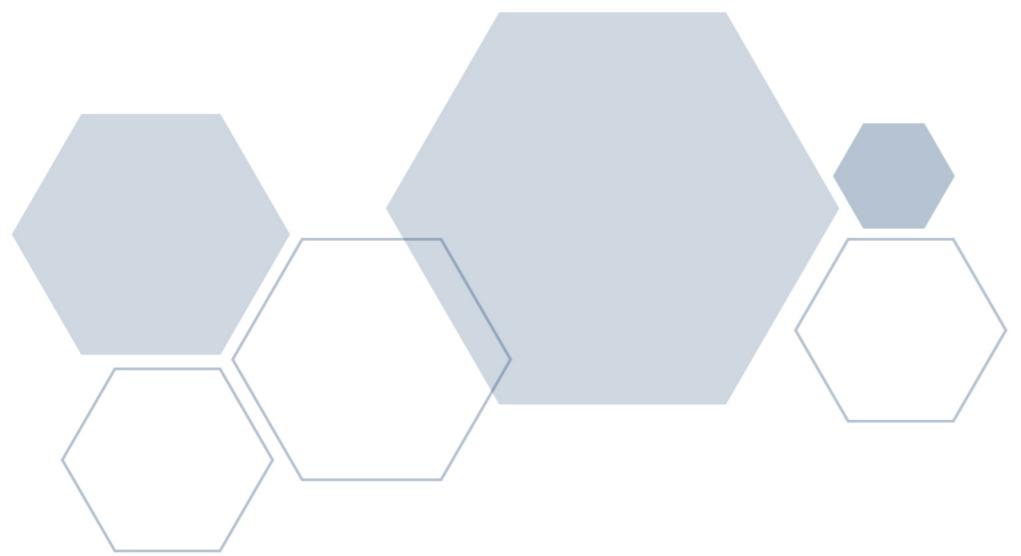
Piping length: Interconnecting piping length is 7.5m, level difference is zero.

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

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

Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.

\*heating is only available for heat pump series.



## Outdoor Unit Combination

Capacity (HP)	Model	Combination	Photo
20	FMV-560(20)W(C)HK	10HPx2	
22	FMV-615(22)W(C)HK	10HP+12HP	
24	FMV-680(24)W(C)HK	10HP+14HP	
26	FMV-730(26)W(C)HK	10HP+16HP	
28	FMV-780(28)W(C)HK	10HP+18HP	
30	FMV-850(30)W(C)HK	14HP+16HP	
32	FMV-900(32)W(C)HK	14HP+18HP	
34	FMV-950(34)W(C)HK	16HP+18HP	
36	FMV-1000(36)W(C)HK	18HPx2	
38	FMV-1060(38)W(C)HK	10HPx2+18HP	
40	FMV-1130(40)W(C)HK	10HP+14HP+16HP	
42	FMV-1180(42)W(C)HK	10HP+16HPx2	
44	FMV-1230(44)W(C)HK	10HP+16HP+18HP	
46	FMV-1280(46)W(C)HK	10HP+18HPx2	
48	FMV-1350(48)W(C)HK	14HP+16HP+18HP	
50	FMV-1400(50)W(C)HK	14HP+18HPx2	
52	FMV-1450(52)W(C)HK	16HP+18HPx2	
54	FMV-1500(54)W(C)HK	18HPx3	
56	FMV-1560(56)W(C)HK	10HPx2+18HPx2	
58	FMV-1630(58)W(C)HK	10HP+14HP+16HP+18HP	
60	FMV-1680(60)W(C)HK	10HP+14HP+18HPx2	
62	FMV-1730(62)W(C)HK	10HP+16HP+18HPx2	
64	FMV-1780(64)W(C)HK	10HP+18HPx3	
66	FMV-1850(66)W(C)HK	14HP+16HP+18HPx2	
68	FMV-1900(68)W(C)HK	14HP+18HPx3	
70	FMV-1950(70)W(C)HK	16HP+18HPx3	
72	FMV-2000(72)W(C)HK	18HPx4	



## VRF Individual Series - Heat Pump

**380-415/3/50**  
Power Supply

HP Model FMV-		7 200(7)WHI	8 224(8)WHI	10 260(10)WHI	14 400(14)WHI	16 450(16)WHI
Power supply	V/Ph/Hz	380-415/3/50				
<b>Cooling</b>						
Capacity	kW	20.0	22.4	26.0	40.0	45.0
Power input	kW	6.1	6.8	7.6	11.9	13.6
EER		3.28	3.29	3.42	3.35	3.32
<b>Heating</b>						
Capacity	kW	22.0	24.5	28.5	45.0	50.0
Power input	kW	6.1	5.9	6.8	11.1	12.7
COP		3.61	4.15	4.19	4.05	3.93
<b>Connectable indoor unit</b>						
Total capacity		50~130% of outdoor unit capacity				
Max. quantity		10	11	12	14	15
<b>Compressor</b>						
Type		DC inverter				
Quantity		1	1	1	2	2
<b>Fan motor</b>						
Type		DC motor				
Quantity		2	2	2	2	2
<b>Refrigerant</b>						
Type		R410A				
Factory charging	kg	4.8	6.2	6.2	9	12
Pipe connections	Liquid pipe	mm	Φ9.53	Φ9.53	Φ12.7	Φ12.7
	Gas pipe	mm	Φ19.1	Φ19.1	Φ22.2	Φ25.4
Air flow rate	m³/h	10999	10494	10494	16575	16575
Sound pressure level	dB(A)	59	59	60	62	62
Net dimension (WxHxD)	mm	1120×1558×528		1360×1650×540	1460×1650×540	
Packing size (WxHxD)	mm	1270×1720×565		1450×1785×560	1550×1785×560	
Net weight	kg	137	146.5	147	240	275
Gross weight	kg	153	162.5	163	260	290
Operating temperature range	°C	Cooling: -15~46; Heating: -15~24			Cooling: -5~48; Heating: -15~24	

HP Model FMV-		8 252(8)WHI	10 280(10)WHI	12 335(12)WHI	14 400(14)WHI	
<b>Power supply</b>						
Cooling	V/Ph/Hz	380-415/3/50				
Capacity	kW	25.2	28.0	33.5	40.0	
Power input	kW	5.9	7.2	9.1	12.3	
EER		4.29	3.89	3.7	3.25	
<b>Heating</b>						
Capacity	kW	27.0	31.5	37.5	45.0	
Power input	kW	6.2	7.6	9.0	11.2	
COP		4.39	4.14	4.17	4.02	
<b>Connectable indoor unit</b>						
Total capacity		50~130% of outdoor unit capacity				
Max. quantity		13	16	16	16	
<b>Compressor</b>						
Type		DC inverter				
Quantity		1	1	2	3	
<b>Fan motor</b>						
Type		DC motor				
Quantity		1	1	2	2	
Max Static Pressure	Pa	20 (default)				
	Pa	40 (customized)				
<b>Refrigerant</b>						
Type		R410A				
Factory charging	kg	10	10	12	15	
Pipe connections	Liquid pipe	mm	Φ12.7	Φ12.7	Φ15.9	Φ15.9
	Gas pipe	mm	Φ25.4	Φ25.4	Φ31.8	Φ31.8
Air flow rate	m³/h	11000	11000	15000	15000	
Sound pressure level	dB(A)	57	57	58	60	
Net dimension (WxHxD)	mm	960×1615×765		1250×1615×765		
Packing size (WxHxD)	mm	1025×1790×830		1305×1790×820		
Net weight	kg	205	275	325		
Gross weight	kg	220	295	345		
Operating temperature range	°C	Cooling: -5~48; Heating: -15~24			Cooling: -15~48; Heating: -15~24	

**Notes:**  
Capacities are based on the following conditions:  
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB; Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.  
Piping length: Interconnecting piping length is 7.5m, level difference is zero.  
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.

## VRF Individual Series - Heat Pump

HP Model FMV-		16 450(16)WHI	20 560(20)WHI	22 615(22)WHI	24 670(24)WHI		
<b>Power supply</b>							
Cooling	V/Ph/Hz	380-415/3/50					
Capacity	kW	45.0	56.0	61.5	67.0		
Power input	kW	14	17	18.8	20.8		
EER		3.21	3.3	3.27	3.22		
<b>Heating</b>							
Capacity	kW	50.0	63.0	69.0	75.0		
Power input	kW	12.8	16	17.9	19.8		
COP		3.91	3.94	3.86	3.79		
<b>Connectable indoor unit</b>							
Total capacity		50~130% of outdoor unit capacity					
Max. quantity		20	33	36	39		
<b>Compressor</b>							
Type		DC inverter+Fixed					
Quantity		3	3	3	3		
<b>Fan motor</b>							
Type		DC motor	DC motor+AC motor				
Quantity		2	2	2	2		
Max Static Pressure	Pa	20 (default)					
	Pa	40 (customized)					
<b>Refrigerant</b>							
Type		R410A					
Factory charging	kg	15	17	18.5	18.5		
Pipe connections	Liquid pipe	mm	Φ15.9	Φ19.1	Φ19.1		
	Gas pipe	mm	Φ31.8	Φ31.8	Φ31.8		
Air flow rate	m³/h	15000	20000	23000	23000		
Sound pressure level	dB(A)	60	62	63	63		
Net dimension (WxHxD)	mm	1250×1615×765	1390×1615×765	1585×1615×765			
Packing size (WxHxD)	mm	1305×1790×820	1455×1790×830	1650×1810×840			
Net weight	kg	325	360	385	390		
Gross weight	kg	345	375	400	405		
Operating temperature range	°C	Cooling: -5~48; Heating: -15~24					

**Notes:**  
Capacities are based on the following conditions:  
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB; Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.  
Piping length: Interconnecting piping length is 7.5m, level difference is zero.  
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.

**Notes:**  
Capacities are based on the following conditions:  
Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB; Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.  
Piping length: Interconnecting piping length is 7.5m, level difference is zero.  
Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit

## VRF R Series - Heat Recovery

**380-415/3/50**  
Power Supply

**380-415/3/60**  
Power Supply

Model FMV-	8	10	12	14	16
Power supply	252(8)W/D2RN1T(C)	280(10)W/D2RN1T(C)	335(12)W/D2RN1T(C)	400(14)W/D2RN1T(C)	450(16)W/D2RN1T(C)
Cooling	V/Ph/Hz		380-415/3/50(60)		
Capacity	kW	25.2	28	33.5	40
Power input	kW	5.73	6.67	8.07	11.3
EER		4.4	4.2	4.15	3.54
Heating	Capacity	kW	27	31.5	37.5
	Power input	kW	6	7.33	8.72
	COP		4.5	4.3	4.02
Connectable indoor unit	Total capacity		50~130% of outdoor unit capacity		
Max. quantity		13	16	20	23
Compressor	Type		DC inverter		
Quantity		1	1	1	2
Fan motor	Type		DC motor		
Quantity		2	2	2	2
Static pressure	Pa		0-20 (default)		
	Pa		20-40 (customized)	20-60 (customized)	20-40 (customized)
Refrigerant	Type		R410A		
Factory charging	kg	10	10	10	13
Pipe connections	Liquid pipe	mm	Φ12.7	Φ12.7	Φ15.9
	Low pressure gas pipe	mm	Φ22.2	Φ22.2	Φ25.4
	High pressure gas pipe	mm	Φ19.1	Φ19.1	Φ19.1
	High pressure gas balance pipe	mm	Φ19.1	Φ19.1	Φ19.1
	Oil balance pipe	mm	Φ6	Φ6	Φ6
Air flow rate	m³/h	12000	12000	13000	15000
Sound pressure level	dB(A)	57	57	58	60
Net dimension (W×H×D)	mm	1250×1615×765			
Packing size (W×H×D)	mm	1305×1790×820			
Net weight	kg	255	255	255	303
Gross weight	kg	273	273	273	322
Operating temperature range	°C	Cooling: -5~48; Heating: -20~24; Simultaneous Cooling and Heating: -5~24			

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB; Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

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

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

Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor.



## VRF R Series - Mode Switch Box

Model	MS01/N1-C	MS02/N1-C	MS04/N1-C	MS06/N1-C	MS02E/N1-C	MS04E/N1-C
Applicable indoor units	All VRF indoor units except high static pressure duct				Only high static pressure duct	
Max. indoor unit groups	1	2	4	6	1	1
Max. number of each group of indoor units	4	4	4	4	1	1
Max. number of downstream indoor units	4	8	16	24	1	1
Max. capacity of each group of indoor units	kW	16	16	16	20/25/28	40/45/56
Max. total capacity of all downstream indoor units	kW	16	28	45	45	20-28
Piping connections	Connected to outdoor unit	Liquid pipe	mm	Φ9.53	Φ12.7	Φ15.9
		High pressure gas pipe	mm	Φ15.9	Φ19.1	Φ22.2
		Low pressure gas pipe	mm	Φ19.1	Φ25.4	Φ31.8
	Connected to indoor unit	Liquid pipe	mm	Φ9.53	Φ9.53	Φ9.53
		Gas pipe	mm	Φ15.9	Φ15.9	Φ15.9
Sound pressure level	dB(A)	33	33	33	40	33
Net dimension (W×H×D)	mm	630×225×600	630×225×600	960×225×600	960×225×600	960×225×600
Packing size (W×H×D)	mm	725×325×685	725×325×685	1055×325×685	1055×325×685	1055×325×685
Net weight	kg	18	19.5	31	35	19.5
Gross weight	kg	25	27	40	44.5	27

Note:

Sound values are measured in a semi-anechoic room, at a position 1m below the MS equipment in mode switch condition.

It is not recommended to install in a place where low noise performance is required.



## Outdoor Unit Combination

Capacity (HP)	Model	Combination	Photo
18	FMV-532(18)WHR	8HP+10HP	
20	FMV-560(20)WHR	10HPx2	
22	FMV-615(22)WHR	10HP+12HP	
24	FMV-680(24)WHR	10HP+14HP	
26	FMV-730(26)WHR	10HP+16HP	
28	FMV-800(28)WHR	14HPx2	
30	FMV-850(30)WHR	14HP+16HP	
32	FMV-900(32)WHR	16HPx2	
34	FMV-960(34)WHR	10HPx2+14HP	
36	FMV-1010(36)WHR	10HPx2+16HP	
38	FMV-1065(38)WHR	10HP+12HP+16HP	
40	FMV-1130(40)WHR	10HP+14HP+16HP	
42	FMV-1200(42)WHR	14HPx3	
44	FMV-1250(44)WHR	14HPx2+16HP	
46	FMV-1300(46)WHR	14HP+16HPx2	
48	FMV-1350(48)WHR	16HPx3	
50	FMV-1432(50)WHR	8HP+10HP+16HPx2	
52	FMV-1460(52)WHR	10HPx2+16HPx2	
54	FMV-1515(54)WHR	10HP+12HP+16HPx2	
56	FMV-1580(56)WHR	10HP+14HP+16HPx2	
58	FMV-1650(58)WHR	14HPx3+16HP	
60	FMV-1700(60)WHR	14HPx2+16HPx2	
62	FMV-1750(62)WHR	14HP+16HPx3	
64	FMV-1800(64)WHR	16HPx4	



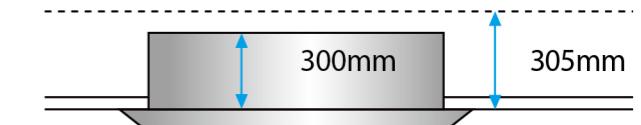
# INDOOR UNITS

Two-way Cassette  
 Four-way Cassette  
 Low Static Pressure Duct  
 Medium Static Pressure Duct  
 High Static Pressure Duct  
 Fresh Air Processing Unit  
 Wall-mounted  
 Ceiling & Floor

## Two-way Cassette



- Quiet Operation** Optimized airflow duct with low resistance greatly reduces noise, down to a minimum of 24dB(A).
- High-lift Pump** Standard built-in drain pump with 750mm pump head (higher pump head can be customized).
- High Airflow** High airflow for high ceiling application guarantees comfort in large spaces. Guarantees even airflow and temperature throughout the room.
- Stylish Design And Slim Body** Thanks to the stylish appearance and slim body, the unit suits any room's decor and ambience. At only 300mm high, the unit requires only a small space in suspended ceilings. Installation has no height limitations, which means overall design features much more flexibility.



### Specifications

Model	FMV-22NQ2	FMV-28NQ2	FMV-36NQ2	FMV-45NQ2	FMV-56NQ2	FMV-71NQ2
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	60	92	108
	Heating W	57	57	60	92	108
Airflow rate(H/M/L)	m³/h	654/530/410	654/530/410	725/591/458	850/670/550	980/800/670
Sound pressure level(H/M/L)	dB(A)	33/29/24	36/32/29	36/32/29	39/35/30	39/35/30
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				
Standard controller	Wireless remote controller					

Model	FMV-22NQ2(60Hz)	FMV-28NQ2(60Hz)	FMV-36NQ2(60Hz)	FMV-45NQ2(60Hz)	FMV-56NQ2(60Hz)	FMV-71NQ2(60Hz)	
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	8900	10900	13600	17100	21500	
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	
	CFM	397/300/224	397/300/224	436/340/256	517/406/330	554/457/385	
Sound pressure level(H/M/L)	dB(A)	33/29/24	36/32/29	36/32/29	39/35/30	44/40/34	
Main body	Net dim.(WxHxD) mm(in.)	1172x299x591(46-9/32x11-49/64x23-17/64) 1355x400x675(53-11/32x15-3/4x26-37/64)					
	Packing dim.(WxHxD) mm(in.)	34/42.5(75/94)					
	Net/gross weight kg(lbs.)	36.5/45(80.5/99)					
Panel	Net dim.(WxHxD) mm(in.)	1430x53x680(56-19/64x2-3/32x26-49/64) 1525x130x765(60-3/64x5-1/8x30-1/8)					
	Packing dim.(WxHxD) mm(in.)	10.5/15(23/33)					
	Net/gross weight kg(lbs.)	Φ6.35/Φ12.7(Φ1/4/Φ1/2) Φ32(OD 1-17/64)					
Piping connections	Liquid/gas pipe mm(in.)	Φ9.53/Φ15.9(Φ3/8/Φ5/8)					
	Drain pipe mm(in.)	Wireless remote controller					

#### Notes:

- Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent ref. piping: 7.5m(horizontal).
- Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent ref. piping: 7.5m(horizontal).
- Sound level is measured at 1.4m below the unit.
- Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

## Four-way Cassette

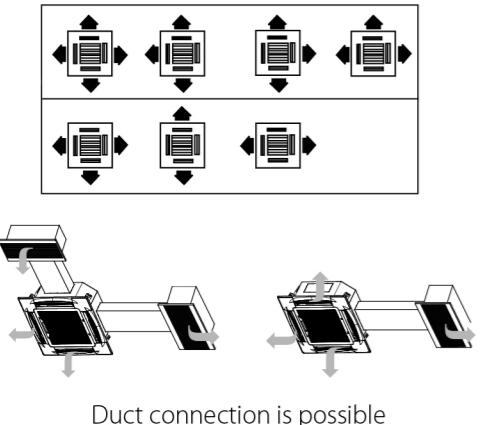


### Various Selections

Three selections: Compact Four-way Cassette, Four-way Cassette & Four-way Cassette Silent Type.

### Flexible Air Distribution Type

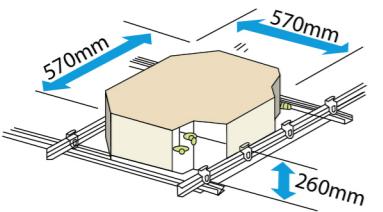
7 discharge patterns in 2 to 4 directions can be selected to suit the requirements of the installation site or the shape of the room.



Duct connection is possible

### Compact Design, Easy Installation

For Compact Four-way Cassette: Extremely compact casing suits any room's decor and requires little space for installation on a low ceiling. Due to compact body and light weight, all models can be installed without a hoist.



### 360° Airflow Outlet

For Compact Four-way Cassette: 360° air outlet provides strong air flow circulation to cool or heat every corner of a room and evenly control temperatures.



### Sub Duct

Sub duct enables you to use the same air conditioner unit to cool an additional smaller space nearby.



### Fresh Air Intake

Fresh air can enter through the cassette unit so you can enjoy even fresher air in a room.



### Easy Troubleshooting

For Four-way Cassette& Four-way Cassette Silent Type: By adding digital tube on the display board, Error Codes can be displayed directly for troubleshooting.



### Lower Operating Noise

For Four-way Cassette Silent Type: The newly designed fan blade, air deflector and the built-in throttling part reduce noise greatly.



### High-lift Drain Pump

For Compact Four-way Cassette: Drain pump with a 500mm pump head is fitted as standard; maximum 600mm pump head is available.

For Four-way Cassette& Four-way Cassette Silent Type: Drain pump can pump condenser water up to 750mm high, which simplifies installation of the drain piping system.

## Compact Four-way Cassette

Model		FMV-15NQ4C		FMV-22NQ4C		FMV-28NQ4C		FMV-36NQ4C		FMV-45NQ4C
Power supply		1-phase,220-240V,50Hz		1-phase,220-240V,50Hz(60Hz)		1-phase,220-240V,50Hz		1-phase,220-240V,50Hz(60Hz)		
Capacity	Cooling	kW	1.5	2.2	2.8	3.6	4.5			
	Heating	kW	1.7	2.4	3.2	4.0	5.0			
Power input	Cooling	W	36	50(51)	50(52)	56(58)	56(58)			
	Heating	W	36	50(43)	50(44)	56(50)	56(51)			
Airflow rate(H/M/L)		m³/h	435/283/208	414/313/238	414/313/238	521/409/314	521/409/314			
Sound pressure level(H/M/L)		dB(A)	34.9/32.5/22.5	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.(W×H×D)	mm	570×260×570	570×260×570	570×260×570	570×260×570	570×260×570			
	Packing dim.(W×H×D)	mm	675×285×675	675×285×675	675×285×675	675×285×675	675×285×675			
	Net/gross weight	kg	16/19.5	16/20	16/20	18/22	18/22			
Panel	Net dim.(W×H×D)	mm	647×50×647	647×50×647	647×50×647	647×50×647	647×50×647			
	Packing dim.(W×H×D)	mm	715×123×715	715×123×715	715×123×715	715×123×715	715×123×715			
	Net/gross weight	kg	2.5/4.5	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	Φ6.35/Φ12.7			
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25	OD Φ25	OD Φ25			
Standard controller								Wireless remote controller		

## Four-way Cassette

Model		FMV-28NQ4		FMV-36NQ4		FMV-45NQ4		FMV-56NQ4		FMV-71NQ4
Power supply						1-phase,220-240V,50Hz(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	65(90)	65(90)	75(90)	75(90)	82(115)			
	Heating	W	65(90)	65(90)	75(90)	75(90)	82(115)			
Airflow rate(H/M/L)		m³/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	42/38/35			
Main body	Net dim.(W×H×D)	mm	904×230×840	904×230×840	904×230×840	904×230×840	904×230×840			
	Packing dim.(W×H×D)	mm	955×260×955	955×260×955	955×260×955	955×260×955	955×260×955			
	Net/gross weight	kg	24/28	24/28	26/30	26/30	26/30			
Panel	Net dim.(W×H×D)	mm	950×54.5×950	950×54.5×950	950×54.5×950	950×54.5×950	950×54.5×950			
	Packing dim.(W×H×D)	mm	1035×90×1035	1035×90×1035	1035×90×1035	1035×90×1035	1035×90×1035			
	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		FMV-80NQ4		FMV-96NQ4		FMV-100NQ4		FMV-112NQ4		FMV-140NQ4
Power supply						1-phase,220-240V,50Hz(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	97(115)	160(160)	160(160)	160(160)	170(180)			
	Heating	W	97(115)	160(160)	160(160)	160(160)	170(180)			
Airflow rate(H/M/L)		m³/h	1236/973/729	1540/1300/1120	1540/1300/1120	1540/1300/1120	1540/1300/1120			
Sound pressure level(H/M/L)		dB(A)	45/42/39	48/45/43	48/45/43	48/45/43	48/45/43			
Main body	Net dim.(W×H×D)	mm	904×230×840	904×300×840	904×300×840	904×300×840	904×300×840			
	Packing dim.(W×H×D)	mm	955×260×9							







## Wall-mounted



Various selections

K panel and S panel.

High efficiency and low sound operation

K type products adopt DC brushless fan motor. The units operate in higher efficiency and lower sound level.

Auto swing louver

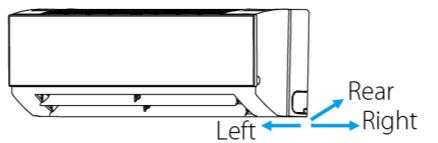
The Auto Swing Louver function ensures that the air direction corresponds to the mode selected.

Convenient installation

Multi-directional refrigerant outlet pipe: left\right\rear, more flexible for installation.

EXV is built-in the indoor unit, compact size.

Adopts new type fixing plate, stable and easy to install.



Precise flow control

A 2000-stage element mechanical expansion valve ensures precise flow control whilst generating little modulation noise.

## Specification

### K panel

Model	FMV-22NGK		FMV-28NGK		FMV-36NGK		FMV-45NGK			
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)			m³/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	FMV-56NGK		FMV-71NGK		FMV-80NGK		FMV-90NGK			
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	82				
Airflow rate (H/M/L)			m³/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	Φ9.53/Φ15.9			
	Drain pipe	mm	OD Φ16.5							
Standard controller			Wireless remote controller							

### S panel

Model	FMV-15NGS		FMV-22NGS		FMV-28NGS		FMV-36NGS		FMV-45NGS		FMV-56NGS	
Power supply			1-phase,220-240V,50/60Hz								1-phase,220-240V,50/60Hz	
Capacity	Cooling	kW	1.5	2.2	2.8	3.6	4.5	5.6				
	Heating	kW	1.7	2.4	3.2	4	5	6.3				
Power input	Cooling	W	28	28	28	28	28	45	45	45	45	
	Heating	W	28	28	28	28	28	45	45	45	45	
Airflow rate(H/M/L)			m³/h	427/389/336	525/480/430	525/480/430	590/520/480	860/755/630	925/860/755			
Sound pressure level(H/M/L)			dB(A)	33/31/28	35/32/29	35/32/29	35/32/29	40/38/34	40/38/34			
Net dimension(WxHxD)			mm	915x290x230	915x290x230	915x290x230	915x290x230	1072x315x230	1072x315x230			
Packing dimension(WxHxD)			mm	1020x390x315	1020x390x315	1020x390x315	1020x390x315	1180x415x315	1180x415x315			
Net/gross weight			kg	12.4/15.9	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	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	OD Φ16.5	OD Φ16.5	OD Φ16.5	OD Φ16.5	
Standard controller			Wireless remote controller									

#### Notes:

1. Nominal cooling capacities are based on the following conditions: return air temperature.: 27°CDB, 19°CWB,outdoor temperature.: 35°CDB, equivalent ref. piping: 7.5m(horizontal).
2. Nominal heating capacities are based on the following conditions: return air temperature.: 20°CDB, outdoor temperature.: 7°CDB, 6°CWB, equivalent ref. Piping: 7.5m(horizontal).
3. Sound level is measured 1m below the air outlet horizontally and vertically.

# Ceiling & Floor

## Specification

Model	FMV-36NCF	FMV-45NCF	FMV-56NCF	FMV-71NCF	FMV-80NCF
Power supply	1-phase,220-240V,50Hz(60Hz)				
Capacity	Cooling	kW	3.6	4.5	5.6
	Heating	kW	4.0	5.0	6.3
Power input	Cooling	W	49(50)	120(148)	122(148)
	Heating	W	49(50)	120(148)	122(148)
Airflow rate(H/M/L)	m³/h	650/570/500	800/600/500	800/600/500	800/600/500
Sound pressure level(H/M/L)	dB(A)	40/38/36	43/41/38	43/41/38	43/41/38
Net dimension(WxHxD)	mm	990×203×660	990×203×660	990×203×660	990×203×660
Packing dimension(WxHxD)	mm	1089×296×744	1089×296×744	1089×296×744	1089×296×744
Net/gross weight	kg	26/32	28/34	28/34	28/34
Piping connections	Liquid/gas pipe	mm	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25	OD Φ25
Standard controller	Wireless remote controller				

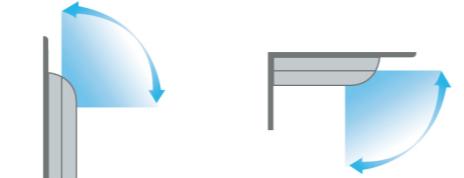
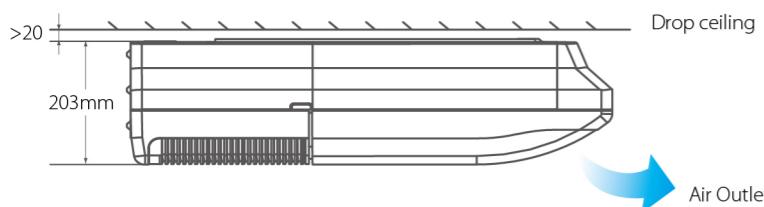


- Auto Restart Function
- Auto Addressing
- Timer
- Auto Defrosting
- Easy-cleaning Panel
- Follow Me
- Anti-cold Air Function
- Auto Swing
- LED Display
- Built-in Filter
- Independent Dehumidification
- Wired Controller

## Convenient Installation

The slim and sleek structure design ensures easy installation.

It can be installed into a corner of the ceiling even if the ceiling is very narrow.



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

## Auto Swing and Wide Angle Air Flow

Two direction auto swing - vertical and horizontal.

The range of horizontal air discharge is widened which secures wider air flow distribution to provide more comfortable air circulation no matter where the unit is set up.

Three air flow speeds: low, medium and high; double air guides.

## More Comfortable

Adopts electrical expansion valve, ensuring precise flow control, lower modulation noise when EXV is operating.

Low noise operations; minimum 36 dB(A).

Smoother airflow and less turbulence due to the multi-blade fan and the air guide design.

Model	FMV-90NCF	FMV-112NCF	FMV-140NCF	FMV-160NCF
Power supply	1-phase,220-240V,50Hz(60Hz)			
Capacity	Cooling	kW	9.0	11.2
	Heating	kW	10.0	12.5
Power input	Cooling	W	130(183)	182(245)
	Heating	W	130(183)	182(245)
Airflow rate(H/M/L)	m³/h	1200/900/700	1980/1860/1730	1980/1860/1730
Sound pressure level(H/M/L)	dB(A)	45/43/40	47/45/42	47/45/42
Net dimension(WxHxD)	mm	1280×203×660	1670×244×680	1670×244×680
Packing dimension(WxHxD)	mm	1379×296×744	1764×329×760	1764×329×760
Net/gross weight	kg	34.5/41	54/59	54/59
Piping connections	Liquid/gas pipe	mm	Φ9.53/Φ15.9	Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25	OD Φ25
Standard controller	Wireless remote controller			

### Notes:

- Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent ref. piping: 7.5m(horizontal).
- Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent ref. piping: 7.5m(horizontal).
- Floor standing: Sound level is measured 1m horizontally and 1m vertically from the air-outlet.  
Ceiling mounted: Sound level is measured 1m horizontally and 1m vertically from the air-outlet.



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