


**Indoor Units**

VRF V4 Plus indoor units


**Ventilation**

Heat recovery ventilator (HRV)


**Control Systems**

Smart control systems

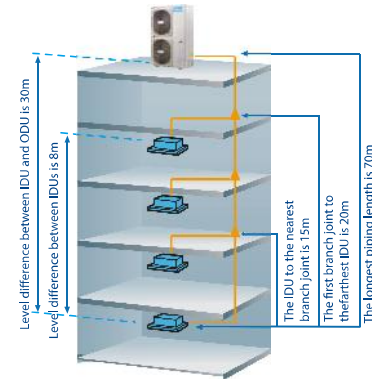


# VRF V4 Plus Mini Series Heat Pump

## Optimized design for small buildings

- » DC inverter compressor
- » DC fan motor
- » Capacity up to 18kW
- » Connectable indoor units quantity up to 9
- » Precise oil control technology
- » Advanced silence technology
- » Intelligent defrosting technology
- » Simple communication wiring
- » Auto addressing
- » Easy maintenance

### 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

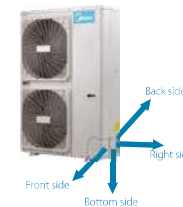
### More Convenient Piping Connector – Branch Box »



Easier and safer installation thanks to a branch box that simplifies piping work greatly.



### Four-Way Piping Connection »



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

## VRF V4 Plus Mini Series - Heat Pump



HP			3	4	4.5	5	6
Model MDV-			V80W/DN1	V105W/DN1	V120W/DN1	V140W/DN1	V160W/DN1(B)
Power supply	V/Ph/Hz		220~240/1/50				
Cooling	Capacity	kW	7.2 (1.5-8.0)	9.0 (2.0-10.0)	12.3	14	15.5
	Power input	kW	1.85	2.30	3.25	3.95	4.52
	EER		3.90	3.92	3.78	3.54	3.43
Heating	Capacity	kW	7.2 (1.6-8.4)	9.0 (2.1-10.5)	13.2	15.4	17
	Power input	kW	1.79	2.27	3.47	4.16	4.78
	COP		4.02	3.97	3.8	3.7	3.56
Connectable indoor unit	Total capacity	45~130% of outdoor unit capacity					
	Max. quantity		4	5	6	6	7
Compressor	Type	Rotary					
	Quantity		1	1	1	1	1
Fan motor	Type	DC Motor					
	Quantity		1	1	2	2	2
Refrigerant	Type	R410A					
	Factory charging	kg	2.8	2.95	3.3	3.9	3.9
Pipe connections	Liquid pipe	mm	Ø9.53	Ø9.53	Ø9.53	Ø9.53	Ø9.53
	Gas pipe	mm	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø19.1
Air flow rate		m <sup>3</sup> /h	5500	5500	6000	6000	6000
Sound pressure level		dB(A)	56	57	57	57	57
Net dimension (WxHxD)		mm	1073x966x396			900x1327x400	
Packing size (WxHxD)		mm	1120x1100x435			1030x1456x435	
Net weight		kg	75.5			95	
Gross weight		kg	85.5			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.

In Mini VRF system, if only one indoor unit is connected, the capacity of indoor unit should be not more than outdoor unit's capacity. If more than one indoor unit are connected, the capacity of each indoor unit should be not more than 8kW for refrigerant uniform distribution.

## VRF V4 Plus Mini Series - Heat Pump



HP			4.5	5	6	6.5
Model MDV-			V120W/DRN1	V140W/DRN1	V160W/DRN1	V180W/DRN1
Power supply	V/Ph/Hz		380~415/3/50			
Cooling	Capacity	kW	12.3	14	15.5	17.5
	Power input	kW	3.25	3.95	4.52	5.3
	EER		3.78	3.54	3.43	3.3
Heating	Capacity	kW	13.2	15.4	17	19
	Power input	kW	3.47	4.16	4.78	5
	COP		3.8	3.7	3.56	3.8
Connectable indoor unit	Total capacity	45~130% of outdoor unit capacity				
	Max. quantity		6	6	7	9
Compressor	Type	Rotary				
	Quantity		1	1	1	1
Fan motor	Type	DC motor				
	Quantity		2	2	2	2
Refrigerant	Type	R410A				
	Factory charging	kg	3.3	3.9	3.9	4.5
Pipe connections	Liquid pipe	mm	Ø9.53	Ø9.53	Ø9.53	Ø9.53
	Gas pipe	mm	Ø15.9	Ø15.9	Ø19.1	Ø19.1
Air flow rate		m <sup>3</sup> /h	6000	6000	6000	6800
Sound pressure level		dB(A)	57	57	57	59
Net dimension (WxHxD)		mm	900x1327x400			
Packing size (WxHxD)		mm	1030x1456x435			
Net weight		kg	95			107
Gross weight		kg	106			118
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.

In Mini VRF system, if only one indoor unit is connected, the capacity of indoor unit should be not more than outdoor unit's capacity. If more than one indoor unit are connected, the capacity of each indoor unit should be not more than 8kW for refrigerant uniform distribution.