



MIDEA VC Pro VRF

8-90HP Cooling Only Series

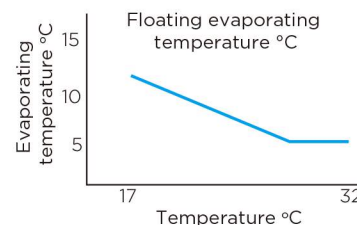


Energy saving

» Energy Management System (EMS)

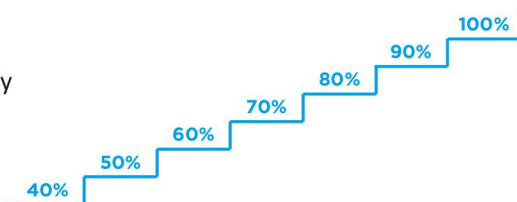
- **Floating refrigerant temperature to balance comfort and efficiency**

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



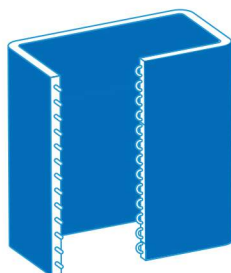
- **Output limitation during electricity supply restrictions**

With the integration of EMS, for projects with temporary electricity supply restrictions, VC Pro VRF can be set to output 40-100% capacity.



» 4-side heat exchanger

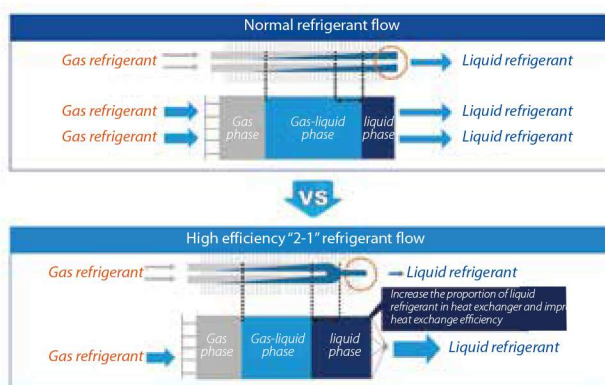
G-type heat exchangers have higher energy efficiency than the U-type.



2-rows G-type heat exchanger

» High efficiency “2-1” refrigerant flow

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



Wide Application Range

» Wide Capacity Range

For single unit, the footprint is small and maximum capacity is up to 30HP. For combined units, maximum three 30HP units can be combined with capacity up to 90HP.

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



18/20/22HP
(with dual fans)

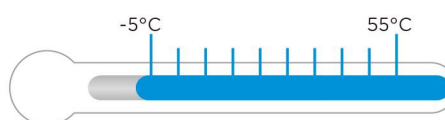


24/26/28/30HP
(with dual fans)



» Wide Operation Rang

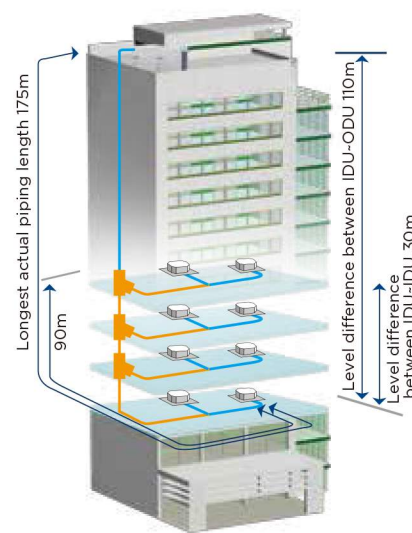
The VC Pro VRF can operate stably in a wide ambient temperature range: from -5°C to 55°C in cooling mode.



» Long Piping Capability

- Total piping length: 1000m
- Longest piping length-actual (equivalent): 175m(200m)
- Longest piping length after first branch: 40/90*m
- Level difference between IDUs and ODU-ODU above (below): 90m (110m)
- Level difference between IDUs: 30m

*The longest length after 1st branch is 40m as standard but can be extended up to 90m under certain conditons. Please contact your local Midea dealer for further information



» Selectable ESP of outdoor unit*

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

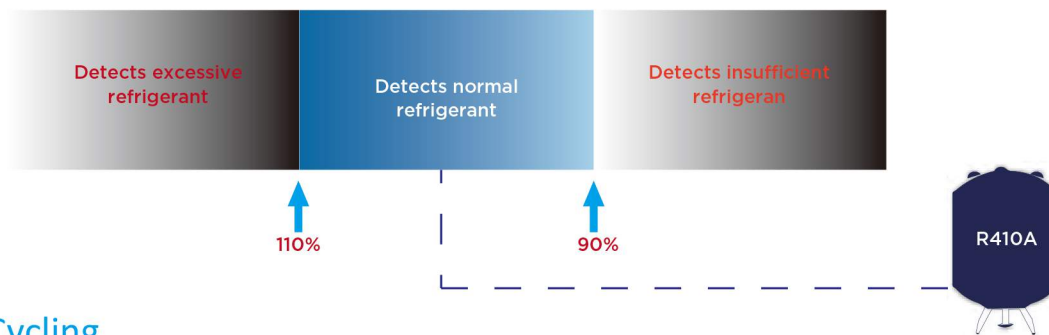
*This function is available as a customization option.



High Reliability

>> Real-time Refrigerant Amount Monitoring

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



>> Duty Cycling

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



1st cycle



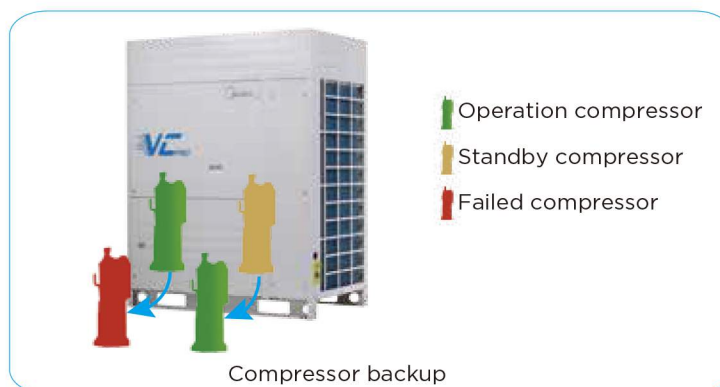
2nd cycle



3rd cycle

>> Backup Operation

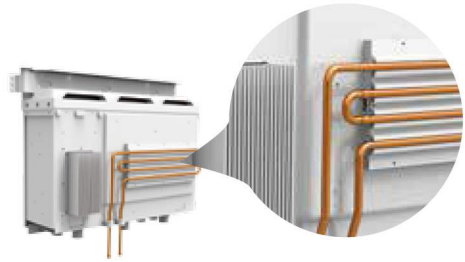
In units with two compressors, if one compressor fails, the other compressor can run on its own for up to 4 days, allowing time for maintenance or repair whilst maintaining comfort.



High Reliability

» Refrigerant cooling PCB

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



» Intelligent Configurations

Intelligent configurations greatly simplify installation, commissioning and servicing.

- Field local configuration achieves quick and easy on-site settings, simplifies installation and commissioning.
- System checking and settings also can be easily achieved via wired controller making the configuration more flexible and convenient.
- A desktop or laptop PC can be used for browser-based access to achieve system configurations through IMMPRO gateway via a LAN connection.



» Automatic Refrigerant Charging

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

*This function is available as a customization option.



» Dust-clean function*

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

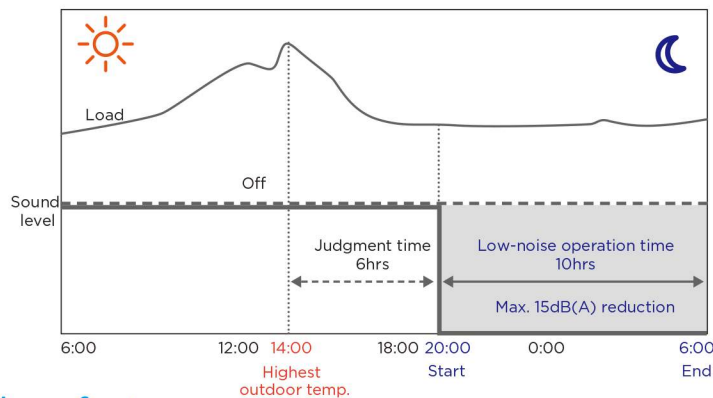
*This function is available as a customization option.



Enhanced Comfort

» Optional silent modes

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



» Silent technology features

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

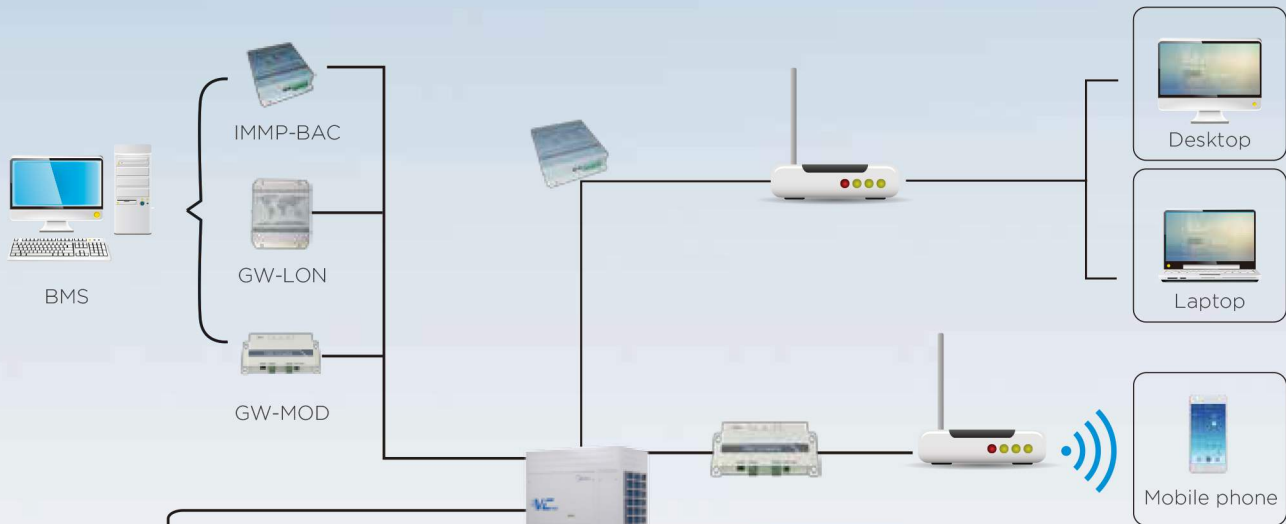


» Precise temperature control

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



Comprehensive Control Solutions



Wired Controllers

Wireless Remote Controllers

Centralized Controllers



Specifications

HP			8	10	12	14	16	18	
Model name			MVC-224WV2WN1	MVC-280WV2WN1	MVC-335WV2WN1	MVC-400WV2WN1	MVC-450WV2WN1	MVC-500WV2WN1	
Power supply			220V 3Ph~50/60Hz						
Cooling ¹	Capacity	kW	22.4	28.0	33.5	40.0	45.0	50.0	
		kBtu/h	76.5	95.6	114.4	136.6	153.7	170.8	
		Power input	kW	5.25	7.10	8.90	10.30	12.00	13.70
		EER	4.27	3.94	3.76	3.88	3.75	3.65	
Connected indoor unit	Total capacity		50-130%						
	Maximum quantity		13	16	20	23	26	29	
Compressor	Type		DC inverter						
	Quantity		1						
	Oil type		FV 50s						
	Start-up method		Soft start						
Fan	Type		DC						
	Quantity		1						
	Motor output		0.56						
	Static pressure		Pa(in.wg)						
	Airflow rate		m ³ /h(CFM)						
	Drive type		10400(6121)						
Refrigerant	Type		Direct R410A						
	Factory charge		kg(lbs)						
Pipe connections ²	Liquid pipe	mm(inch)	Φ12.7(1/2)			Φ15.9(5/8)			
	Gas pipe	mm(inch)	Φ25.4(1)			Φ28.6(1-1/8)			
Sound pressure level ³			57	58	60	60	61	62	
Net dimensions (W×H×D)			mm	960×1615×765			1250×1615×765		
			inch	37-13/16×63-9/16×30-1/8			49-1/4×63-9/16×30-1/8		
Packed dimensions (W×H×D)			mm	1025×1790×830			1305×1790×820		
			inch	40-3/8×70-1/2×32-11/16			51-3/8×70-1/2×32-1/4		
Net weight			kg	193			296		
			lbs	425			653		
Gross weight			kg	209			313		
			lbs	461			690		
Ambient temp.	Cooling	°C(°F)	-5(23) to 55(131)						

HP			20	22	24	26	28	30	
Model name			MVC-560WV2WN1	MVC-615WV2WN1	MVC-670WV2WN1	MVC-730WV2WN1	MVC-785WV2WN1	MVC-850WV2WN1	
Power supply		V/Ph/Hz	220V 3Ph~50/60HZ						
Cooling¹	Capacity	kW	56.0	61.5	67.0	73.0	78.5	85.0	
		kBtu/h	191.3	210.0	228.8	249.3	268.1	290.3	
	Power input	kW	16.50	19.65	20.10	22.20	24.18	27.51	
	EER		3.39	3.13	3.33	3.29	3.25	3.09	
Connected indoor unit	Total capacity		50-130%						
	Maximum quantity		33	36	39	43	46	50	
Compressor	Type		DC inverter						
	Quantity		2		2			2	
	Oil type		FV 50s						
	Start-up method		Soft start						
Fan	Type		DC						
	Quantity		2		2			2	
	Motor output		0.56×2		0.56×2			0.56×2	
	Static pressure		Pa(in.wg)	20(0.08) default;60(0.24) customization option					
	Airflow rate		m³/h(CFM)	12200(7181)	12200(7181)	19600(11536)	20600(12125)		
	Drive type								
Refrigerant	Type		Direct R410A						
	Factory charge		kg(lbs)	13(28.7)	13(28.7)	19(41.9)	19(41.9)		
Pipe connections²	Liquid pipe	mm(inch)	Φ19.1(3/4)		Φ19.1(3/4)	Φ22.2(7/8)	Φ22.2(7/8)	Φ22.2(7/8)	
	Gas pipe	mm(inch)	Φ31.8(1-1/4)		Φ31.8(1-1/4)	Φ31.8(1-1/4)	Φ31.8(1-1/4)	Φ38.1(1-1/2)	
Sound pressure level³		dB(A)	63	63	64	64			
Net dimensions (W×H×D)		mm	1250×1615×765	1250×1615×765	1585×1615×765	1585×1615×765			
		inch	49-1/4×63-9/16×30-1/8	49-1/4×63-9/16×30-1/8	62-3/8×63-9/16×30-1/8	62-3/8×63-9/16×30-1/8			
Packed dimensions (W×H×D)		mm	1305×1790×820	1305×1790×820	1650×1810×840	1650×1810×840			
		inch	51-3/8×70-1/2×32-1/4	51-3/8×70-1/2×32-1/4	64-15/160×71-1/4×33-1/16	64-15/160×71-1/4×33-1/16			
Net weight		kg	296	296	352	352			
		lbs	653	653	776	776			
Gross weight		kg	313	313	376	376			
		lbs	690	690	829	829			
Ambient temp.	Cooling	°C(°F)	-5(23) to 55(131)						

Notes:

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

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