



Commercial Air Conditioners **2017/2018**



VRF 50/60Hz
V5 E Series



Midea CAC After-service Application



iOS Version



Android Version



Midea CAC News Application



iOS Version

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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

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 GROUP
FORTUNE GLOBAL
FORTUNE
500

- 2016 >> Acquired 80% stake in Clivet
- 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

Midea Company
Introduction



Midea CAC
Introduction



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OUTDOOR UNIT LINEUP

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

The V5 E offers a variety of outstanding capabilities. Able to support piping lengths of up to 1000m and height differences of up to 110m, the V5 E 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










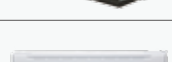





68-88HP





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																									
	Two-way cassette																									
	Four-way cassette																									
	Compact four-way cassette																									
Duct	Low static pressure																									
	Medium static pressure																									
																										
	High static pressure																									
	Fresh air processing unit																									
Wall mounted																										
Ceiling & floor																										
Floor standing																										
Console																										

■ AC Series
■ DC Series



» OUTDOOR UNITS

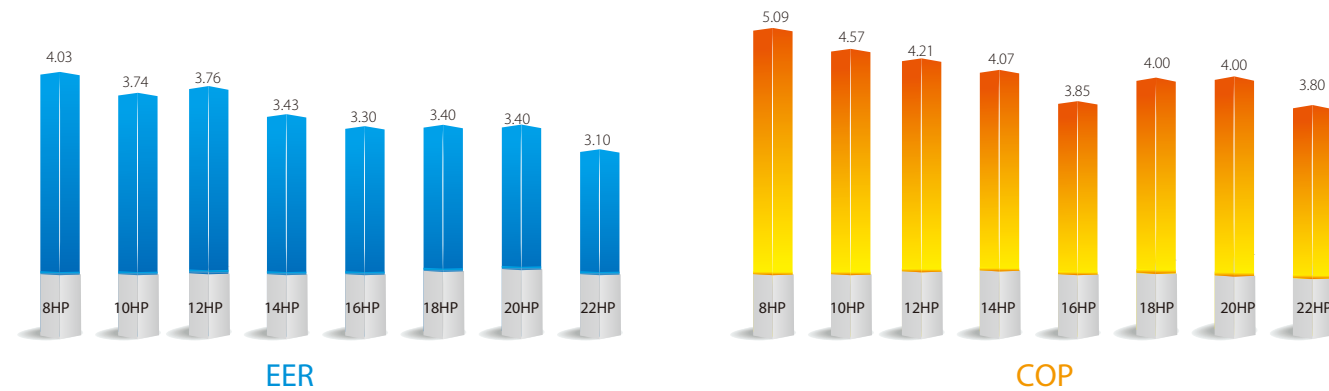
V5 E SERIES VRF

- ❖ 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 E Series top-class energy efficiency in cooling and heating.



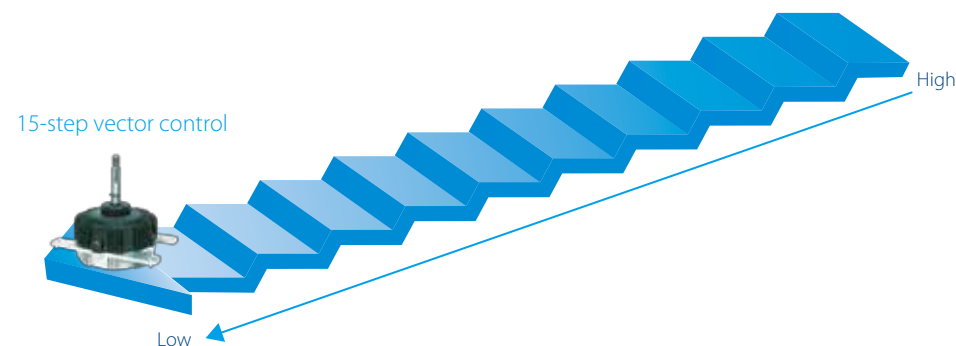
All DC Inverter Compressors >>

At the heart of the V5 E 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.

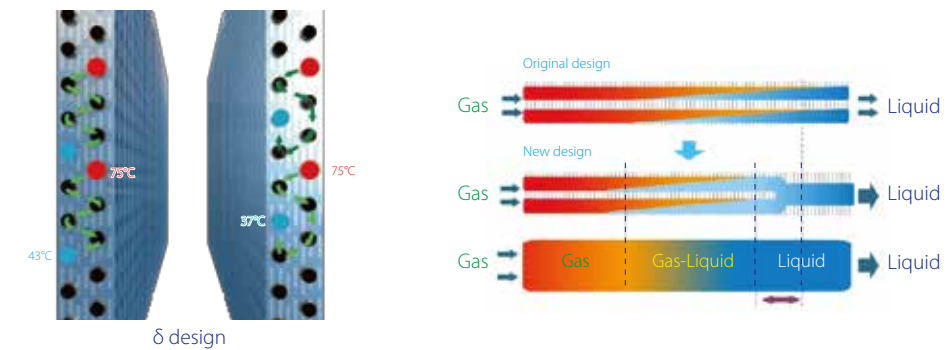


High Efficiency Heat Exchanger >>

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

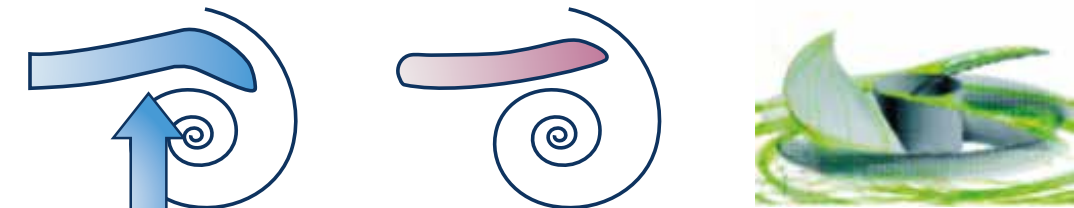
Hydrophilic fins and internally threaded copper pipes optimize heat exchange efficiency.

δ 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.

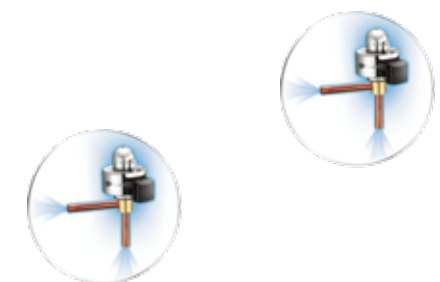


Precise Control >>

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

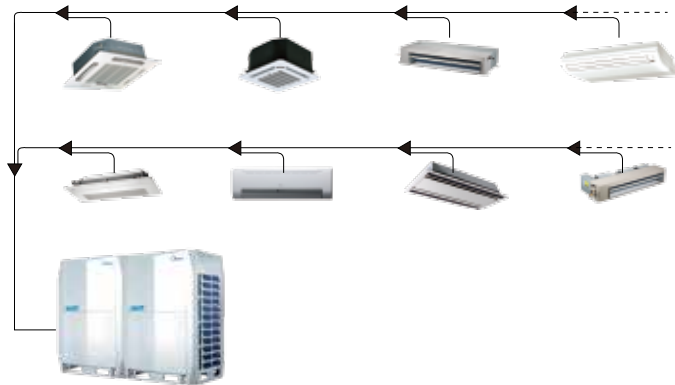
Wide Capacity Range >>

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



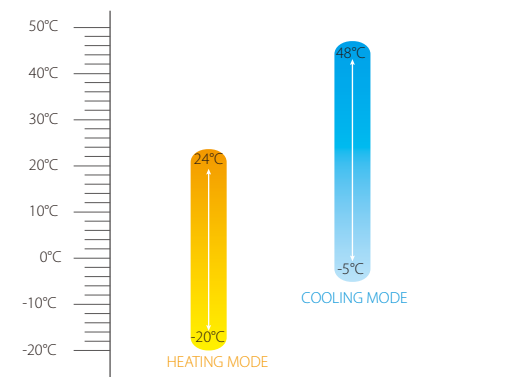
Wide Range of Indoor Units >>

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 >>

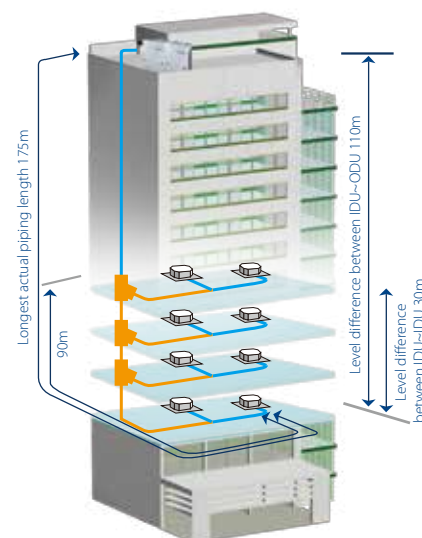
V5E Series operates stably under extreme conditions, ranging from minus 20°C to 48°C.



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.

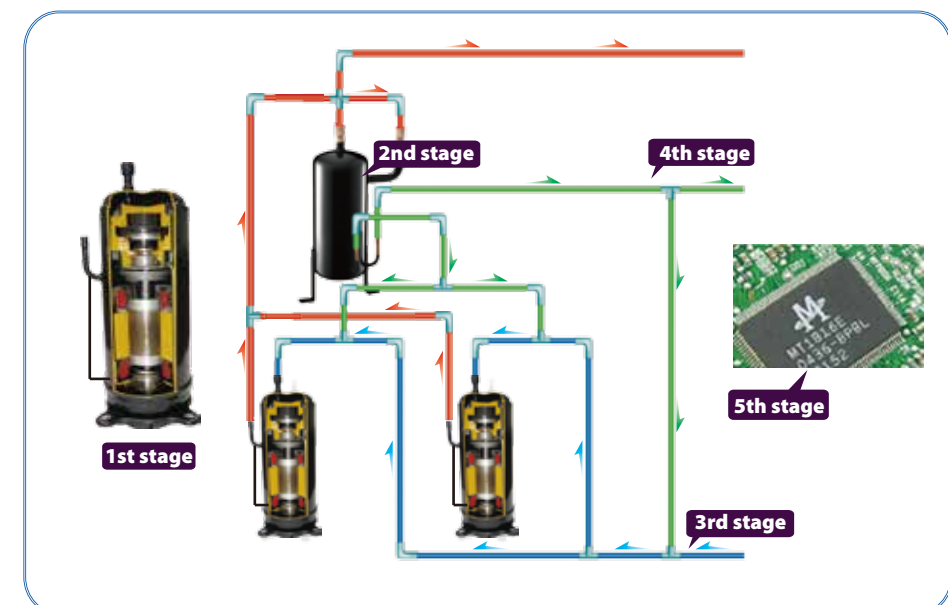
The 1st stage: Compressor internal oil separation.

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

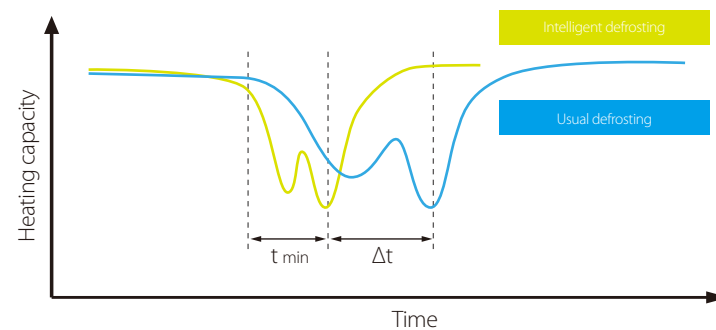
Night Silent Mode >>

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



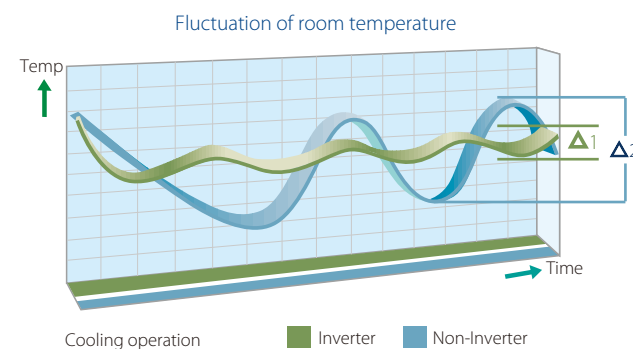
Intelligent Defrosting Technology >>

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.

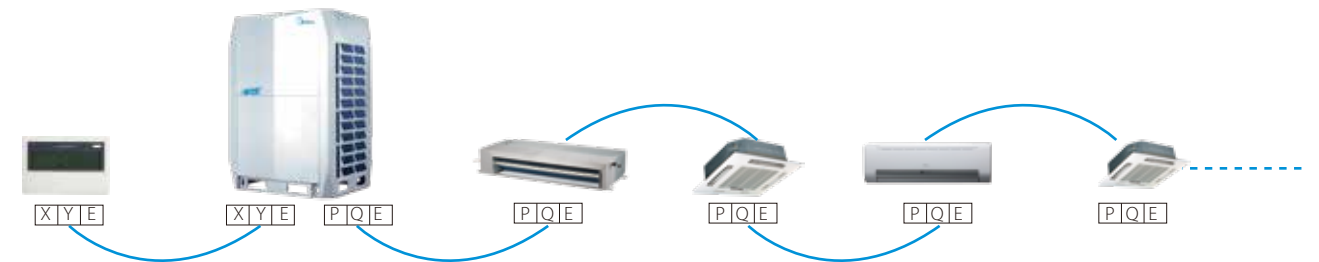


Easy Installation and Service

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 >>

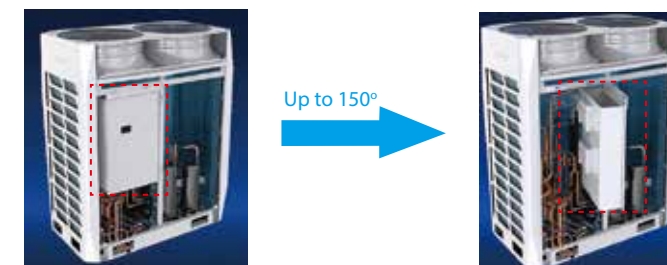
Outdoor unit can distribute addresses to indoor units automatically.

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 >>

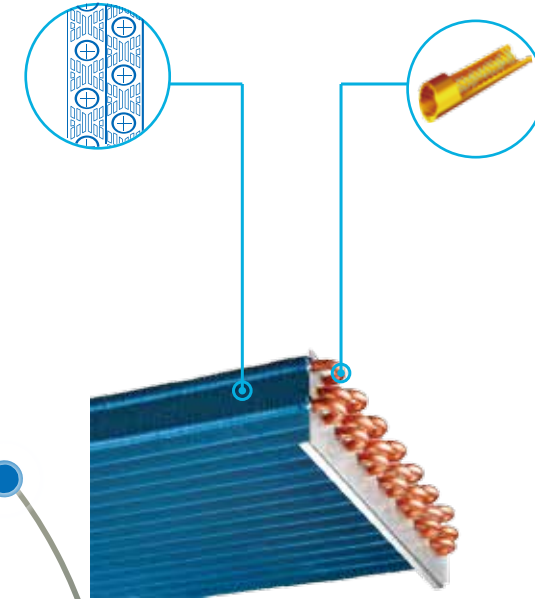
Standard products:
72h of neutral salt mist

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

Capacity Model		HP	8	10	12	14
Model			MV5-E252WV2GN1	MV5-E280WV2GN1	MV5-E335WV2GN1	MV5-E400WV2GN1
Power supply			3-phase, 380-415V,50/60Hz			
Cooling	Capacity	kW	25.2	28.0	33.5	40.0
		kBtu/h	86.0	95.6	114.3	136.5
	Power input	kW	6.25(duct)	7.49(duct)	8.91(duct)	11.66(duct)
Heating	EER		4.03(duct)	3.74(duct)	3.76(duct)	3.43(duct)
	Capacity	kW	27.0	31.5	37.5	40.0
	Power input	kW	92.2	107.5	128.0	136.5
Connected indoor units	Total capacity		5.30(duct)	6.89(duct)	8.91(duct)	9.83(duct)
	Maximum quantity		5.09(duct)	4.57(duct)	4.21(duct)	4.07(duct)
	COP					
Compressors	Type		50-130% of outdoor unit capacity			
	Quantity		13	16	20	23
	Type		DC inverter			
Fan motors	Quantity		1	1	1	2
	Type		DC			
	Quantity		1	1	1	2
Refrigerant	Static pressure	Pa (in.W.G)	0-20(0-0.08) (default)			
		Pa (in.W.G)	20-60(0.08-0.24) (customized)			
	Type		R410A			
Pipe connections	Factory charge	kg(lbs.)	9(19.8)	9(19.8)	11(24.3)	13(28.7)
	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)
Air flow rate	Oil balance pipe	mm(in.)	Φ6.35(Φ1/4)			
	m ³ /h		12000	12000	12000	14000
	Sound power level	dB(A)	79	83	82	88
Net dimensions (WxHxD)	Sound pressure level	dB(A)	59	63	62	66
	mm		990x1635x790			
	in.		39x64-3/8x31-1/8			
Packed dimensions (WxHxD)	mm		1055x1805x855			
	in.		41-1/2x71-1/16x33-5/8			
	mm		1405x1805x855			
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 Model		HP	16	18	20	22
Model			MV5-E450WV2GN1	MV5-E500WV2GN1	MV5-E560WV2GN1	MV5-E615WV2GN1
Power supply			3-phase, 380-415V,50/60Hz			
Cooling	Capacity	kW	45.0	50.0	56.0	61.5
		kBtu/h	153.6	170.6	191.1	209.9
	Power input	kW	13.64(duct)	14.71(duct)/16.67(non-duct)	16.47(duct)/18.67(non-duct)	19.84(duct)/23.21(non-duct)
Heating	EER		3.3(duct)	3.4(duct)/3.0(non-duct)	3.4(duct)/3.0(non-duct)	3.1(duct)/2.65(non-duct)
	Capacity	kW	45.0	50.0	56.0	61.5
	Power input	kW	153.6	170.6	191.1	209.9
Connected indoor units	COP		11.69(duct)	12.50(duct)/14.71(non-duct)	14.00(duct)/16.47(non-duct)	16.18(duct)/19.84(non-duct)
	Total capacity		3.85(duct)	4(duct)/3.4(non-duct)	4(duct)/3.4(non-duct)	3.8(duct)/3.1(non-duct)
	Maximum quantity		26	29	33	36
Compressors	Type		50-130% of outdoor unit capacity			
	Quantity		2	2	2	2
	Type		DC inverter			
Fan motors	Quantity		2	2	2	2
	Type		DC			
	Quantity		2	2	2	2
Refrigerant	Static pressure	Pa (in.W.G)	0-20(0-0.08) (default)			
		Pa (in.W.G)	20-60(0.08-0.24) (customized)			
	Type		R410A			
Pipe connections	Factory charge	kg(lbs.)	13(28.7)	13(28.7)	16(35.3)	16(35.3)
	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)
Air flow rate	Oil balance pipe	mm(in.)	Φ6.35(Φ1/4)			
	m ³ /h		14000	16000	16000	16000
	Sound power level	dB(A)	88	88	88	88
Net dimensions (WxHxD)	Sound pressure level	dB(A)	66	66	66	66
	mm		1340x1635x790			
	in.		52-3/4x64-3/8x31-1/8			
Packed dimensions (WxHxD)	mm		1405x1805x855			
	in.		55-3/8x71-1/16x33-5/8			
	mm		1405x1805x855			
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

Capacity	HP		24	26	28	30	32	34
Model			MV5-E670WV2GN1	MV5-E730WV2GN1	MV5-E780WV2GN1	MV5-E840WV2GN1	MV5-E895WV2GN1	MV5-E950WV2GN1
Combination			12HPx2	10HP+16HP	10HP+18HP	10HP+20HP	10HP+22HP	12HP+22HP
Power supply			3-phase, 380-415V,50/60Hz					
Cooling	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	17.82	21.13	22.20	23.96	27.33	28.75
	EER		3.76	3.45	3.51	3.51	3.27	3.3
Heating	Capacity	kW	75.0	76.5	81.5	87.5	93.0	99.0
		kBtu/h	256.0	261.0	278.1	298.6	317.3	337.8
	Power input	kW	17.82	18.58	19.39	20.89	23.07	25.09
	COP		4.21	4.12	4.20	4.19	4.03	3.95
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(24.3x2)	9+13(19.8+28.7)	9+13(19.8+28.7)	9+16(19.8+35.3)	9+16(19.8+35.3)	11+16(24.3+35.3)
Pipe connections	Liquid pipe	mm(in.)	Φ15.9(Φ5/8)	Φ19.1(Φ3/4)				
	Gas pipe	mm(in.)	Φ28.6(Φ1-1/8)	Φ31.8(Φ1-1/4)				
	Oil balance pipe	mm(in.)	Φ6.35(Φ1/4)					
	Air flow rate	m³/h	24000	26000	28000	28000	28000	28000
Sound power level	dB(A)	85	89	89	89	89	89	
Sound pressure level	dB(A)	65	68	68	68	68	67	
Net dimensions (WxHxD)	mm	990x1635x790+1340x1635x790						
	in.	39x64-3/8x31-1/8+52-3/4x64-3/8x31-1/8						
Packed dimensions (WxHxD)	mm	1055x1805x855+1405x1805x855						
	in.	41-1/2x71-1/16x33-5/8+55-3/8x71-1/16x33-5/8						
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				MV5-E1000WV2GN1	MV5-E1065WV2GN1	MV5-E1115WV2GN1	MV5-E1175WV2GN1	MV5-E1230WV2GN1	MV5-E1285WV2GN1
Combination				18HPx2	16HP+22HP	18HP+22HP	20HP+22HP	22HPx2	12HPx2+22HP
Power supply				3-phase, 380-415V,50/60Hz					
Cooling	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	29.42	33.48	34.55	36.31	39.68	37.66	
	EER		3.40	3.18	3.23	3.24	3.10	3.41	
Heating	Capacity	kW	100.0	106.5	111.5	117.5	123.0	136.5	
		kBtu/h	341.2	363.4	380.4	400.9	419.7	491.4	
	Power input	kW	25.00	27.87	28.68	30.18	32.36	34.00	
	COP		4.00	3.82	3.89	3.89	3.80	4.01	
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(28.7x2)	13+16(28.7+35.3)	13+16(28.7+35.3)	16x2(35.3x2)	16x2(35.3x2)	11x2+16(24.3x2+35.3)	
Pipe connections	Liquid pipe	mm(in.)	Φ19.1(Φ3/4)						
	Gas pipe	mm(in.)	Φ38.1(Φ1-1/2)						
	Oil balance pipe	mm(in.)	Φ6.35(Φ1/4)						
Air flow rate	m ³ /h		32000	30000	32000	32000	32000	40000	
Sound power level	dB(A)		91	91	91	91	91	90	
Sound pressure level	dB(A)		69	69	69	69	69	69	
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			Cooling:-5 to 48(23 to 118.4); Heating:-20 to 24(-4 to 75.2)						

Specifications

380-415V 50(60)Hz



Capacity			HP	48	50	52	54	56
Model				MV5-E1345WV2GN1	MV5-E1395WV2GN1	MV5-E1455WV2GN1	MV5-E1510WV2GN1	MV5-E1565WV2GN1
Combination				10HP+16HP+22HP	10HP+18HP+22HP	10HP+20HP+22HP	10HP+22HP×2	12HP+22HP×2
Power supply				3-phase, 380-415V,50/60Hz				
Cooling	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		40.97	42.04	43.80	47.17	48.59
	EER			3.28	3.32	3.32	3.20	3.22
Heating	Capacity	kW		138.0	143.0	149.0	154.5	160.5
		kBtu/h		470.9	487.9	508.4	527.2	547.6
	Power input	kW		34.76	35.57	37.07	39.25	41.27
	COP			3.97	4.02	4.02	3.94	3.89
Connected indoor units	Total capacity		50-130% of outdoor unit capacity					
	Maximum quantity		64					
Compressors	Type		DC inverter					
	Quantity		5					
Fan motors	Type		DC					
	Quantity		5					
Refrigerant	Type		R410A					
	Factory charge	kg(lbs.)	9+13+16(19.8+28.7+35.3)	9+13+16(19.8+28.7+35.3)	9+16×2(19.8+35.3×2)	9+16×2(19.8+35.3×2)	11+16×2(24.3+35.3×2)	
Pipe connections	Liquid pipe	mm(in.)	Φ19.1(Φ3/4)			Φ22.2(Φ7/8)		
	Gas pipe	mm(in.)	Φ38.1(Φ1-1/2)			Φ41.3(Φ1-5/8)		
	Oil balance pipe	mm(in.)	Φ6.35(Φ1/4)					
Air flow rate			m ³ /h	42000	44000	44000	44000	44000
Sound power level			dB(A)	92	92	92	92	92
Sound pressure level			dB(A)	70	70	70	70	70
Net dimensions (W×H×D)			mm	(990×1635×790)+(1340×1635×790)×2				
			in.	(39×64-3/8×31-1/8)+(52-3/4×64-3/8×31-1/8)×2				
Packed dimensions (W×H×D)			mm	(1055×1805×855)+(1405×1805×855)×2				
			in.	(41-1/2×71-1/16×33-5/8)+(55-3/8×71-1/16×33-5/8)×2				
Net weight			kg(lbs.)	219+297+340(483+655+750)	219+305+340(483+673+750)	219+340×2(483+750×2)	219+340×2(483+750×2)	237+340×2(523+750×2)
Gross weight			kg(lbs.)	234+315+358(516+695+790)	234+323+358(516+712+790)	234+358×2(516+790×2)	234+358×2(516+790×2)	252+358×2(556+790×2)
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				MV5-E1615WV2GN1	MV5-E1680WV2GN1	MV5-E1730WV2GN1	MV5-E1790WV2GN1	MV5-E1845WV2GN1	MV5-E1900WV2GN1
Combination				18HPx2+22HP	16HP+22HPx2	18HP+22HPx2	20HP+22HPx2	22HPx3	12HPx2+22HPx2
Power supply				3-phase, 380-415V,50/60Hz					
Cooling	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	49.26	53.32	54.39	56.15	59.52	57.50	
	EER		3.28	3.15	3.18	3.19	3.1	3.3	
Heating	Capacity	kW	161.5	168.0	173.0	179.0	184.5	198.0	
		kBtu/h	551.0	573.2	590.3	610.7	629.5	675.6	
	Power input	kW	41.18	44.05	44.86	46.36	48.54	50.18	
	COP		3.92	3.81	3.86	3.86	3.80	3.95	
Connected indoor units	Total capacity		50-130% of outdoor unit capacity						
	Maximum quantity		64						
Compressors	Type		DC inverter						
	Quantity		6						
Fan motors	Type		DC						
	Quantity		6						
Refrigerant	Type		R410A						
	Factory charge	kg(lbs.)	13x2+16(28.7x2+35.3)	13+16x2(28.7+35.3x2)	13+16x2(28.7+35.3x2)	16x3(35.3x3)	16x3(35.3x3)	11x2+16x2(24.3x2+35.3x2)	
Pipe connections	Liquid pipe	mm(in.)	Φ22.2(Φ7/8)						Φ25.4(Φ1)
	Gas pipe	mm(in.)	Φ41.3(Φ1-5/8)						Φ44.5(Φ1-3/4)
	Oil balance pipe	mm(in.)	Φ6.35(Φ1/4)						
Air flow rate	m³/h		48000	46000	48000	48000	48000	56000	
Sound power level	dB(A)		93	93	93	93	93	92	
Sound pressure level	dB(A)		71	71	71	71	71	70	
Net dimensions (WxHxD)	mm		(1340x1635x790)×3						(990x1635x790)×2+(1340x1635x790)×2
	in.		(52-3/4x64-3/8x31-1/8)×3						(39x64-3/8x31-1/8)×2+(52-3/4x64-3/8x31-1/8)×2
Packed dimensions (WxHxD)	mm		(1405x1805x855)×3						(1055x1805x855)×2+(1405x1805x855)×2
	in.		(55-3/8x71-1/16x33-5/8)×3						(41-1/2x71-1/16x33-5/8)×2+(55-3/8x71-1/16x33-5/8)×2
Net weight	kg(lbs.)		305x2+340(673x2+750)	297+340x2(655+750x2)	305+340x2(673+750x2)	340x3(750x3)	340x3(750x3)	237x2+340x2(483x2+750x2)	
Gross weight	kg(lbs.)		323x2+358(712x2+790)	315+358x2(695+790x2)	323+358x2(712+790x2)	358x3(790x3)	358x3(790x3)	252x2+358x2(556x2+790x2)	
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 E Series Engineering Data 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



Capacity			HP	70	72	74	76	78
Model				MV5-E1960WV2GN1	MV5-E2010WV2GN1	MV5-E2070WV2GN1	MV5-E2125WV2GN1	MV5-E2180WV2GN1
Combination				10HP+16HP+22HP×2	10HP+18HP+22HP×2	10HP+20HP+22HP×2	10HP+22HP×3	12HP+22HP×3
Power supply				3-phase, 380-415V,50/60Hz				
Cooling	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	60.81	61.88	63.64	67.01	68.43	
	EER		3.22	3.25	3.25	3.17	3.19	
Heating	Capacity	kW	199.5	204.5	210.5	216.0	222.0	
		kBtu/h	680.7	697.8	718.2	737.0	757.5	
	Power input	kW	50.94	51.75	53.25	55.43	57.45	
	COP		3.92	3.95	3.95	3.90	3.86	
Connected indoor units	Total capacity		50-130% of outdoor unit capacity					
	Maximum quantity		64					
Compressors	Type		DC inverter					
	Quantity		7					
Fan motors	Type		DC					
	Quantity		7					
Refrigerant	Type		R410A					
	Factory charge	kg(lbs.)	9+13+16×2(19.8+28.7+35.3×2)	9+13+16×2(19.8+28.7+35.3×2)	9+16×3(19.8+35.3×3)	9+16×3(19.8+35.3×3)	11+16×3(24.3+35.3×3)	
Pipe connections	Liquid pipe	mm(in.)	Φ25.4(Φ1)					
	Gas pipe	mm(in.)	Φ44.5(Φ1-3/4)					
	Oil balance pipe	mm(in.)	Φ6.35(Φ1/4)					
Air flow rate			m ³ /h	58000	60000	60000	60000	60000
Sound power level			dB(A)	93	93	93	93	93
Sound pressure level			dB(A)	71	71	71	71	71
Net dimensions (W×H×D)			mm	(990×1635×790)+(1340×1635×790)×3				
			in.	(39×64-3/8×31-1/8)+(52-3/4×64-3/8×31-1/8)×3				
Packed dimensions (W×H×D)			mm	(1055×1805×855)+(1405×1805×855)×3				
			in.	(41-1/2×71-1/16×33-5/8)+(55-3/8×71-1/16×33-5/8)×3				
Net weight			kg(lbs.)	219+297+340×2(483+655+750×2)	219+305+340×2(483+673+750×2)	219+340×3(483+750×3)	219+340×3(483+750×3)	237+340×3(523+750×3)
Gross weight			kg(lbs.)	234+315+358×2(516+695+790×2)	234+323+358×2(516+712+790×2)	234+358×3(516+790×3)	234+358×3(516+790×3)	252+358×3(556+790×3)
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				MV5-E2230WV2GN1	MV5-E2295WV2GN1	MV5-E2345WV2GN1	MV5-E2405WV2GN1	MV5-E2460WV2GN1
Combination				18HPx2+22HPx2	16HP+22HPx3	18HP+22HPx3	20HP+22HPx3	22HPx4
Power supply				3-phase, 380-415V,50/60Hz				
Cooling	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	69.10	73.16	74.23	75.99	79.36	
	EER		3.23	3.14	3.16	3.16	3.10	
Heating	Capacity	kW	223.0	229.5	234.5	240.5	246.0	
		kBtu/h	760.9	783.1	800.1	820.6	839.4	
	Power input	kW	57.36	60.23	61.04	62.54	64.72	
	COP		3.89	3.81	3.84	3.85	3.80	
Connected indoor units	Total capacity		50-130% of outdoor unit capacity					
	Maximum quantity		64					
Compressors	Type		DC inverter					
	Quantity		8					
Fan motors	Type		DC					
	Quantity		8					
Refrigerant	Type		R410A					
	Factory charge	kg(lbs.)	13x2+16x2(28.7x2+35.3x2)	13+16x3(28.7+35.3x3)	13+16x3(28.7+35.3x3)	16x4(35.3x4)	16x4(35.3x4)	
Pipe connections	Liquid pipe	mm(in.)	Φ25.4(Φ1)					
	Gas pipe	mm(in.)	Φ44.5(Φ1-3/4)					
	Oil balance pipe	mm(in.)	Φ6.35(Φ1/4)					
Air flow rate	m³/h		64000	62000	64000	64000	64000	
Sound power level	dB(A)		94	94	94	94	94	
Sound pressure level	dB(A)		72	72	72	72	72	
Net dimensions (WxHxD)	mm		(1340x1635x790)x4					
	in.		(52-3/4x64-3/8x31-1/8)x4					
Packed dimensions (WxHxD)	mm		(1405x1805x855)x4					
	in.		(55-3/8x71-1/16x33-5/8)x4					
Net weight	kg(lbs.)		305x2+340x2(673x2+750x2)	297+340x3(655+750x3)	305+340x3(673+750x3)	340x4(750x4)	340x4(750x4)	
Gross weight	kg(lbs.)		323x2+358x2(712x2+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)					