

VIVAX VMV5

DC INVERTER



Advanced technology



High efficiency



Super comfort



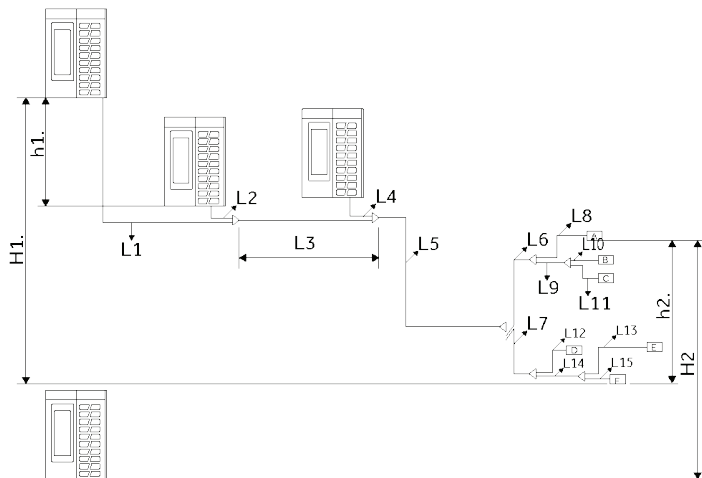
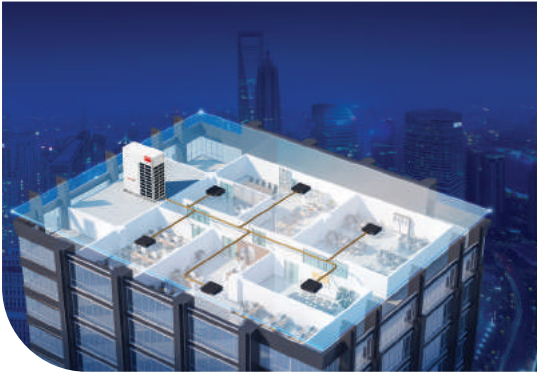
Easy installation

Advanced technology

Flexible long piping design

- 1000 m maximum total piping length
- 220 m maximum actual piping length
- 110 m / 90 m maximum height difference between ODU and IDU (ODU higher / IDU higher)
- 30 m maximum height difference between IDU and IDU

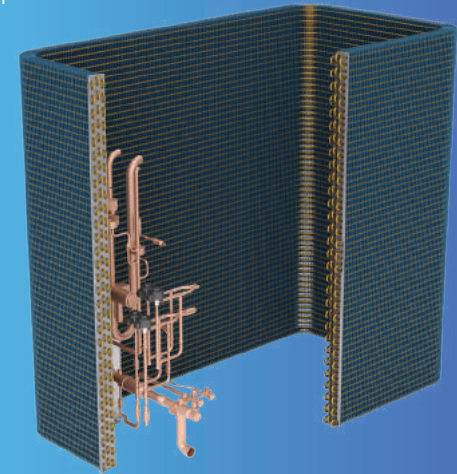
* For the total piping length between 300 m and 1000 m, and height difference greater than 50 m please contact your supplier



	Max. length	Pipe in left figure	
Single way total pipe length (=total liquid pipe length)	1000 m	L1 + L2 + L3 + L4 + L5 + L6 + L7 + L8 + L9 + L10 + L11 + L12 + L13 + L14 + L15	
Single way max. pipe length (max. length between outdoor & indoor) actual length	220 m	L1 + L3 + L5 + L7 + L14 + L13	
Main pipe actual length (length between first gather pipe & first branch pipe)	130 m	L5	
Pipe length after first branch pipe (length between first branch & farthest indoor)	90 m	L7 + L13 + L14	
The distance between the nearest indoor unit and the farthest indoor	40 m	L13 + L14 - L12	
Pipe length among outdoor units (length between first gather pipe & farthest outdoor unit)	10 m	L1 + L3	
Height difference between indoors	18 m	h2	
Height difference between outdoors	5 m	h1	
Height difference between indoor & outdoor	Indoor below outdoor (between highest outdoor & lowest indoor)	50 m	H1
	Indoor above outdoor (between lowest outdoor & highest indoor)	40 m	H2

Optimized condenser coil design

The condenser coil is split in half and refrigerant flow through each part is independently controlled by the separate electronic expansion valve. In this way refrigerant flow and heat exchange area are always optimized to match the indoor units load demand, thus increasing the heat exchange efficiency and improving the system performance.



High efficiency

Increased efficiency with full DC inverter compressor

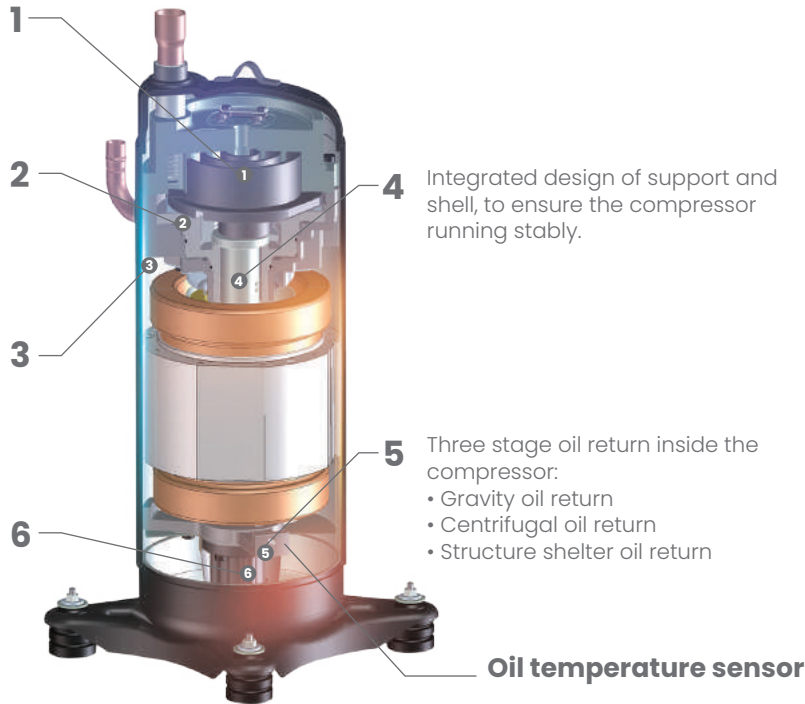
Exhaust temperature sensor

Soft scroll plate design, compared with the common scroll plate, it reduce the leakage loss and mechanical loss, more efficiency.

The soft structure and overpressure protection of unloading valve, both of them can effectively reduce stress loss. The compressor is more stable and also efficiency.

We adopted High pressure chamber compressor, and low oil rate structure design, to ensure the reliable oil supply of the compressor, and lubricate all parts effectively.

Adopt new type oil cup design, reduce the disturbance of high speed rotation to oil level, also reduce the oil discharge, improve lubrication efficiency, reduce frictional loss.



4 Integrated design of support and shell, to ensure the compressor running stably.

5 Three stage oil return inside the compressor:
 • Gravity oil return
 • Centrifugal oil return
 • Structure shelter oil return

Oil temperature sensor

Matches up inverter with stepless compressor, the durability and stability of the compressor are guaranteed, fault can be reduced.

Each compressor is adopted oil temperature sensor and the discharge temperature sensor, detecting the discharge temperature and oil temperature of compressor, cooperated with the compressor frequency and the EEV control, to ensure exhaust heat and oil temperature superheat kept within the optimal range. Ensure that the oil dilution is maintained at a safe level at all times.

DC inverter stepless fan motor

The outdoor fan motor has stepless inverter regulation technology and is able to operate in the 0-91 Hz frequency range which increases efficiency. stepless frequency.



Temperature approaching technology

The main problem of an ordinary inverter VRF system lies in that its compressor starts and stops frequently, stopping when the room temperature reaches the setting temperature and restarting when the same becomes higher than the setting temperature. Though the inverter technology has improved such a problem greatly, the energy consumption caused by system restart is still a problem that cannot be ignored. VMV 5 series units adopts the temperature approaching technology, which enables the VRF system to maintain a low-frequency operating state all the time when the room temperature is close to the setting temperature but doesn't reach the setting temperature, thus avoiding the energy waste caused by frequent on / off.

New four-way heat exchanger

Common three-way heat exchanger

30%
HEAT TRANSFER EFFICIENCY INCREASED BY

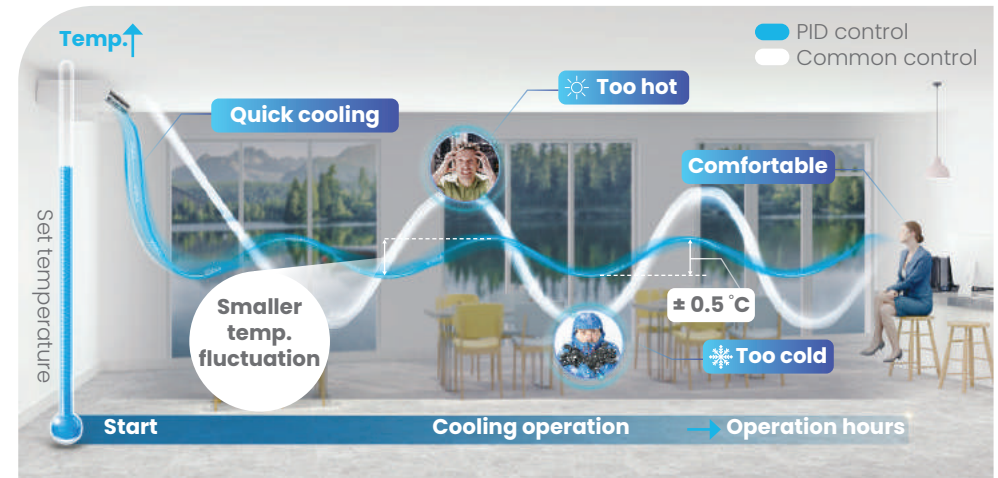
VIVAX new four-way heat exchanger

High comfort



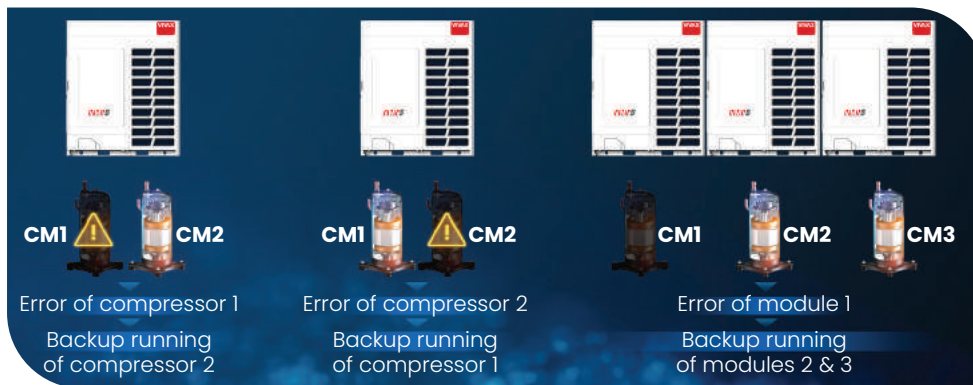
Wide operation temperature range

The operation in heating and cooling are improved and temperature limits are -23 °C in heating and 50 °C in cooling.



Precise temperature control

The VMV 5 units are equipped with double pressure sensors and double electronic expansion valves which enable the automatic refrigerant volume adjustment. With this technology indoor temperature could be controlled by 0.5 °C steps improving the comfort.



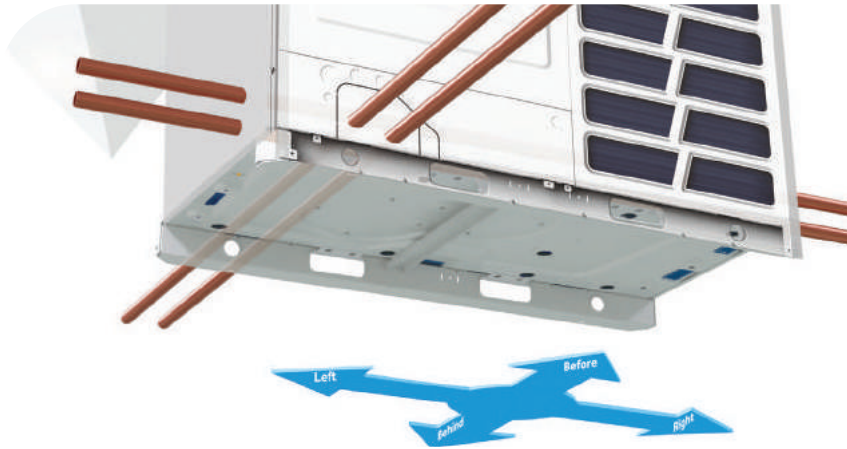
Intelligent backup operation technology

In the case of a compressor malfunction another compressor (single outdoor unit with two compressors) or outdoor unit (multi module outdoor system) will enter in the backup operation. Units will continue to operate for 8 hours allowing the time for repair while providing the indoor comfort.

Easy Installation

Four-way refrigerant piping connection

Refrigerant pipes can be connected from four different directions which makes the piping installation simpler while saving time and material.



110 Pa external static pressure

External static pressure of outdoor unit air outlet can be set up to 110 Pa which allows multiple installation options.



Installation of duct

The outdoor unit is hidden inside the building without affecting the overall image of the building

Auto addressing indoor units

The outdoor unit can automatically address the indoor units through the module on the PCB. It is more convenient and time saving as there is no need to manually set the addresses on each indoor units separately.



Automatic oil balancing

In the multi module outdoor system the oil level in every module is balanced automatically. In such system there is no need for oil balancing pipes which simplifies the system design and improves reliability.



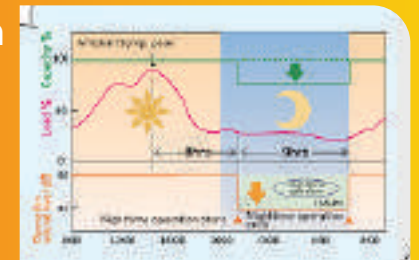
Automatic snow and dust removal

The outdoor unit has the function of preventing snow accumulation on top of the unit. The dust can be blown away from the outdoor heat exchanger by reversing the operation of the fan.

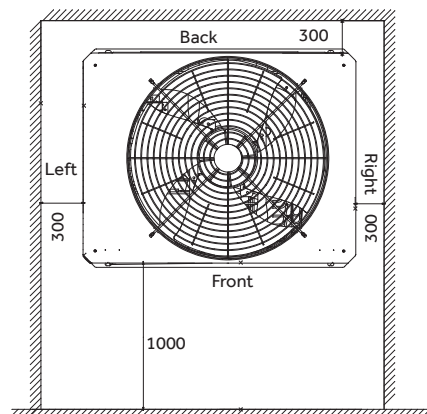
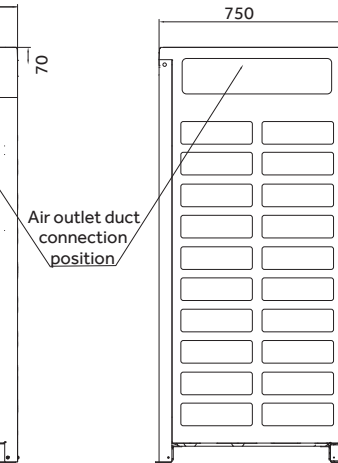
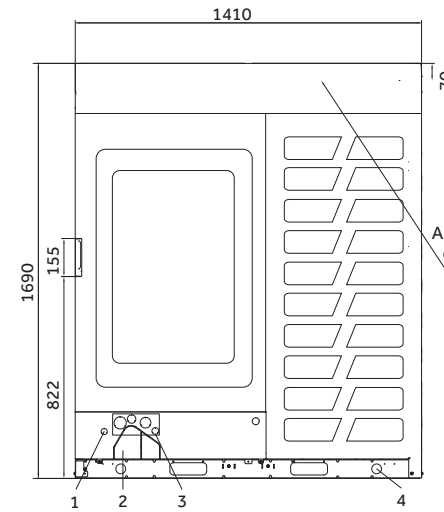
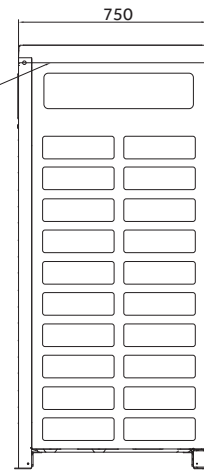
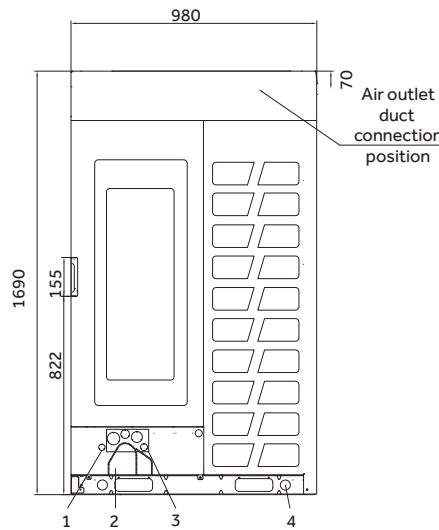
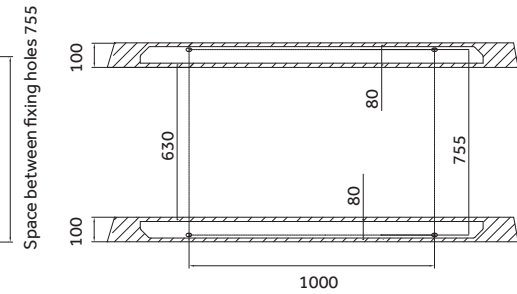
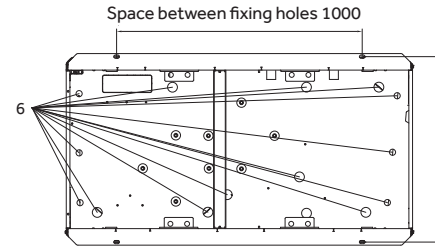
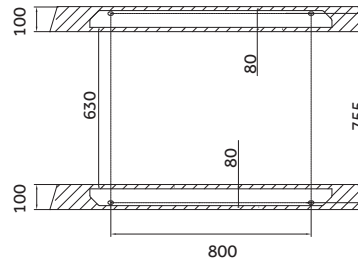
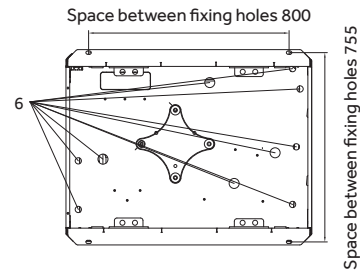


Night time low noise operation mode

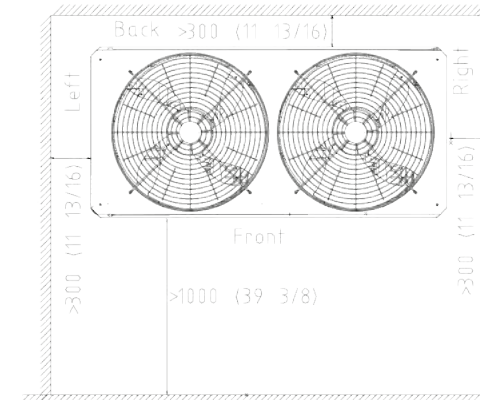
It is possible to set the low noise operation mode which reduces the sound level by 10 dB(A). This function is useful when units are installed in residential areas, as well as in other noise-sensitive places.



Dimensions



No.	Name	Remark
1	Signal line hole Ø25	Using the rubber plug in the unit's attachment for protection
2	Pipe outlet for 2-pipe system	
3	Power supply hole	According to the wire diameter size to choose the appropriate line hole, and using the line sheath in the unit's attachment for protection
4	Hoisting hole	
5	Power supply of signal line hole	
6	Drain hole	



No.	Name	Remark
1	Signal line hole Ø25	Using the rubber plug in the unit's attachment for protection
2	Pipe outlet for 2-pipe system	
3	Pipe outlet for 3-pipe system	
4	Power supply hole	According to the wire diameter size to choose the appropriate line hole, and using the line sheath in the unit's attachment for protection
5	Hoisting hole	
6	Power supply of signal line hole	
7	Refrigerant pipe outlet	
8	Drain hole	

Model		VMV-252ARETA3	VMV-280ARETA3	VMV-335ARETA3	VMV-400ARETA3	VMV-450ARETA3	
Combination model		-	-	-	-	-	
		-	-	-	-	-	
		-	-	-	-	-	
		-	-	-	-	-	
Capacity	Capacity range (HP)	8	10	12	14	16	
	Cooling (kW)	25.2	28.0	33.5	40.0	45.0	
	Heating (kW)	25.2	28.0	33.5	40.0	45.0	
	Heating - Max. (kW)	27.0	31.5	37.5	45.0	50.0	
Electrical parameters	Power supply (Ph / V / Hz)	3 / 380 ~ 415 / 50 / 60					
	Cooling	Rated power input (kW)	6.24	7.37	9.31	11.94	13.24
		Max power input (kW)	12.00	12.90	13.80	16.40	19.20
		Rated current (A)	10.53	12.44	15.71	20.16	22.34
		Max current (A)	20.26	21.78	23.30	27.69	32.41
	Heating	Rated power input (kW)	5.73	6.51	7.94	10.00	11.25
		Max power input (kW)	10.90	12.20	12.50	15.10	18.40
		Rated current (A)	9.67	10.99	13.41	16.88	18.99
		Max current (A)	18.40	20.60	21.10	25.49	31.06
	SEER	7.25	7.09	6.69	6.60	6.36	
	SCOP	4.50	4.40	4.40	4.20	4.00	
	η _{s,c} (%)	287	281	265	261	251	
	η _{s,c} (%)	177	173	173	165	157	
Performance	Air flow (m³ / h)	11000	11000	12000	13500	13500	
	Sound pressure level (dB(A))	56	56	59	59	60	

3 / 380 ~ 415 / 50 / 60



Total pipe length 1000 m, height drop 110 m



Auto addressing indoor units



Space saving



Better cooling capacity



VMV-252ARETA3
VMV-280ARETA3
VMV-335ARETA3
VMV-400ARETA3
VMV-450ARETA3



VMV-504ARETA3
VMV-560ARETA3
VMV-615ARETA3
VMV-680ARETA3
VMV-735ARETA3

Model		VMV-252ARETA3	VMV-280ARETA3	VMV-335ARETA3	VMV-400ARETA3	VMV-450ARETA3
Installation	External dimensions - W/D/H (mm)	980 / 750 / 1690				
	Shipping dimensions - W/D/H (mm)	1070 / 850 / 1858				
	Net / Shipping weight (kg)	224 / 250			244 / 270	
	Compressor type	DC INV. SCROLL				
	Compressor quantity	1INV				
	Refrigerant type	R410A				
	Refrigerant charge (kg)	8.5	8.5	8.5	10	10
	Refrigerant liquid pipe (mm)	9.52	9.52	12.7	12.7	12.7
	Refrigerant gas pipe (mm)	19.05	22.22	25.4	25.4	28.58
	Max.total pipe lenth (m)	1000				
	Max. pipe length (Equivalent / Actual)	260 / 220				
	Max drop between I.U. & O.U. (O.U. down / up) *1 (m)	110 / 90				
	Standard drop between I.U. & O.U. (O.U. up / down) *2 (m)	50 / 40				
	Max drop between I.U. *3 (m)	30				
	Standard drop between I.U. *4 (m)	18				
External static pressure (Pa)	110					
Connection ratio	Connectable indoor unit ratio (%)	50 ~ 130				
	Maximum number of indoor units	13	16	20	24	27
Working temp.	Cooling (°C)	-5 ~ 50				
	Heating (°C)	-23 ~ 21				

Max drop between I.U. & O.U *1 - If the height difference between the outdoor and the indoor units is from 50 to 110 m, contact your local distributor / dealer for individual design and production.

Standard drop between I.U. & O.U *2 - Standard design and production in the factory.

Max drop between I.U. *3 - If the height difference between the indoor units is from 18 to 30 m, contact your local distributor/dealer for individual design and production.

Standard drop between I.U. *4 - Standard design and production in the factory.

* All the specifications are tested under nominal condition(in cooling, indoor temp. is 27 °C DB / 19 °C WB; Outdoor temp. 35 °C DB / 24 WB; in heating, indoor temp. is 20 °C DB, in heating, outdoor temp. is 7 °C DB / 6 °C WB).

Model		VMV-504ARETA3	VMV-560ARETA3	VMV-615ARETA3	VMV-680ARETA3	VMV-735ARETA3	VMV-800ARETA3	VMV-850ARETA3	VMV-900ARETA3	
Combination model		-	-	-	-	-	VMV-400ARETA3	VMV-400ARETA3	VMV-450ARETA3	
		-	-	-	-	-	VMV-400ARETA3	VMV-450ARETA3	VMV-450ARETA3	
		-	-	-	-	-	-	-	-	
		-	-	-	-	-	-	-	-	
Capacity	Capacity range (HP)	18	20	22	24	26	28	30	32	
	Cooling (kW)	50.4	56.0	61.5	68.0	73.5	80.0	85.0	90.0	
	Heating (kW)	50.4	56.0	61.5	68.0	73.5	80.0	85.0	90.0	
	Heating - Max. (kW)	56.5	61.5	69.0	73.0	82.5	90.0	95.0	100.0	
Electrical parameters	Power supply (Ph / V / Hz)	3 / 380 ~ 415 / 50 / 60								
	Cooling	Rated power input (kW)	15.70	16.62	18.30	21.94	24.75	23.88	25.18	26.47
		Max power input (kW)	21.40	25.10	28.50	29.10	33.00	32.80	35.60	38.40
		Rated current (A)	26.51	28.05	30.90	37.03	41.78	40.32	42.50	44.69
		Max current (A)	36.13	42.37	48.11	49.13	55.80	55.37	60.10	64.83
	Heating	Rated power input (kW)	13.19	14.66	16.62	19.43	22.27	20.00	21.25	22.50
		Max power input (kW)	17.70	22.70	25.50	26.50	30.40	30.20	33.50	36.80
		Rated current (A)	22.27	24.75	28.06	32.80	37.60	33.76	35.87	37.98
		Max current (A)	29.88	38.32	43.05	44.74	51.32	50.98	56.55	62.13
	SEER	6.78	6.75	6.54	5.97	5.68	6.60	6.47	6.36	
	SCOP	4.23	4.29	4.30	4.25	3.80	4.17	4.08	4.01	
	η _{s,c} (%)	268	267	259	236	224	261	256	252	
	η _{s,h} (%)	166	169	169	167	149	164	160	157	
Performance	Air flow (m ³ / h)	17000	17000	18000	18000	19000	27000	27000	27000	
	Sound pressure level (dB(A))	61	61	61	62	62	62	62.5	63	

3 / 380 ~ 415 / 50 / 60



Total pipe length 1000 m, height drop 110 m



Auto addressing indoor units



Space saving



Better cooling capacity



VMV-252ARETA3
VMV-280ARETA3
VMV-335ARETA3
VMV-400ARETA3
VMV-450ARETA3



VMV-504ARETA3
VMV-560ARETA3
VMV-615ARETA3
VMV-680ARETA3
VMV-735ARETA3

Model		VMV-504ARETA3	VMV-560ARETA3	VMV-615ARETA3	VMV-680ARETA3	VMV-735ARETA3	VMV-800ARETA3	VMV-850ARETA3	VMV-900ARETA3	
Installation	External dimensions - W/D/H (mm)	1410 / 750 / 1690				980 / 750 / 1690 + 980 / 750 / 1690				
	Shipping dimensions - W/D/H (mm)	1515 / 850 / 1858				1070 / 850 / 1858 + 1070 / 850 / 1858				
	Net / Shipping weight (kg)	287 / 317	370 / 400				244 / 270 + 244 / 270	244 / 270 + 244 / 270		
	Compressor type	DC INV. SCROLL								
	Compressor quantity	1INV	2INV							
	Refrigerant type	R410A								
	Refrigerant charge (kg)	10	10	10	10	10	20	20	20	
	Refrigerant liquid pipe (mm)	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	
	Refrigerant gas pipe (mm)	28.58	28.58	28.58	28.58	28.58	28.58	31.8	31.8	
	Max.total pipe lenth (m)	1000								
	Max. pipe length (Equivalent / Actual)	260 / 220								
	Max drop between I.U. & O.U. (O.U. down / up) *1 (m)	110 / 90								
	Standard drop between I.U. & O.U. (O.U. up / down) *2 (m)	50 / 40								
	Max drop between I.U. *3 (m)	30								
	Standard drop between I.U. *4 (m)	18								
External static pressure (Pa)	110									
Connection ratio	Connectable indoor unit ratio (%)	50 ~ 130								
	Maximum number of indoor units	30	33	36	40	43	47	50	53	
Working temp.	Cooling (°C)	-5 ~ 50								
	Heating (°C)	-23 ~ 21								

Max drop between I.U. & O.U *1 - If the height difference between the outdoor and the indoor units is from 50 to 110 m, contact your local distributor / dealer for individual design and production.

Standard drop between I.U. & O.U *2 - Standard design and production in the factory.

Max drop between I.U. *3 - If the height difference between the indoor units is from 18 to 30 m, contact your local distributor/dealer for individual design and production.

Standard drop between I.U. *4 - Standard design and production in the factory.

* All the specifications are tested under nominal condition (in cooling, indoor temp. is 27 °C DB / 19 °C WB; Outdoor temp. 35 °C DB / 24 WB; in heating, indoor temp. is 20 °C DB, in heating, outdoor temp. is 7 °C DB / 6 °C WB).

Model		VMV-954ARETA3	VMV-1008ARETA3	VMV-1064ARETA3	VMV-1120ARETA3	VMV-1175ARETA3	VMV-1230ARETA3	VMV-1295ARETA3	
Combination model		VMV-450ARETA3	VMV-504ARETA3	VMV-504ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-615ARETA3	VMV-615ARETA3	
		VMV-504ARETA3	VMV-504ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-680ARETA3	
		-	-	-	-	-	-	-	
		-	-	-	-	-	-	-	
Capacity	Capacity range (HP)	34	36	38	40	42	44	46	
	Cooling (kW)	95.4	100.8	106.4	112.0	117.5	123.0	129.5	
	Heating (kW)	95.4	100.8	106.4	112.0	117.5	123.0	129.5	
	Heating - Max. (kW)	106.5	113.0	118.0	123.0	130.5	138.0	142.0	
Electrical parameters	Power supply (Ph / V / Hz)	3 / 380 ~ 415 / 50 / 60							
	Cooling	Rated power input (kW)	28.94	31.40	32.32	33.23	34.92	36.61	40.24
		Max power input (kW)	40.60	42.80	46.50	50.20	53.60	57.00	57.60
		Rated current (A)	48.85	53.01	54.56	56.11	58.95	61.80	67.93
		Max current (A)	68.54	72.26	78.50	84.75	90.49	96.23	97.24
	Heating	Rated power input (kW)	24.44	26.39	27.85	29.32	31.28	33.24	36.05
		Max power input (kW)	36.10	35.40	40.40	45.40	48.20	51.00	52.00
		Rated current (A)	41.27	44.55	47.02	49.50	52.81	56.12	60.86
		Max current (A)	60.94	59.76	68.20	76.64	81.37	86.10	87.79
	SEER	6.57	6.78	6.76	6.75	6.64	6.54	6.22	
	SCOP	4.13	4.23	4.26	4.29	4.29	4.30	4.27	
	$\eta_{s,c}$ (%)	260	268	267	267	262	259	246	
	$\eta_{s,c}$ (%)	162	166	167	168	169	169	168	
	Performance	Air flow (m ³ / h)	30500	34000	34000	34000	35000	36000	36000
Sound pressure level (dB(A))		63.5	64	64	64	64	64	64.5	

3 / 380 ~ 415 / 50 / 60



Total pipe length 1000 m, height drop 110 m



Auto addressing indoor units



Space saving



Better cooling capacity



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VMV-450ARETA3



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VMV-560ARETA3
VMV-615ARETA3
VMV-680ARETA3
VMV-735ARETA3

Model		VMV-954ARETA3	VMV-1008ARETA3	VMV-1064ARETA3	VMV-1120ARETA3	VMV-1175ARETA3	VMV-1230ARETA3	VMV-1295ARETA3	
Installation	External dimensions - W/D/H (mm)	980 / 750 / 1690 + 1410 / 750 / 1690	1410 / 750 / 1690 + 1410 / 750 / 1690						
	Shipping dimensions - W/D/H (mm)	1070 / 850 / 1858 + 1515 / 850 / 1858	1515 / 850 / 1858 + 1515 / 850 / 1858						
	Net / Shipping weight (kg)	244 / 270 + 287 / 317	287 / 317 + 287 / 317		370 / 400 + 370 / 400				
	Compressor type	DC INV. SCROLL							
	Compressor quantity	2INV	2INV	3INV	4INV	4INV	4INV	4INV	
	Refrigerant type	R410A							
	Refrigerant charge (kg)	20	20	20	20	20	20	20	
	Refrigerant liquid pipe (mm)	19.05	19.05	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe (mm)	31.8	38.1	38.1	38.1	38.1	38.1	38.1	
	Max.total pipe lenth (m)	1000							
	Max. pipe length (Equivalent / Actual)	260 / 220							
	Max drop between I.U. & O.U. (O.U. down / up) *1 (m)	110 / 90							
	Standard drop between I.U. & O.U. (O.U. up / down) *2 (m)	50 / 40							
	Max drop between I.U. *3 (m)	30							
	Standard drop between I.U. *4 (m)	18							
External static pressure (Pa)	110								
Connection ratio	Connectable indoor unit ratio (%)	50 ~ 130							
	Maximum number of indoor units	56	59	63	64	64	64	64	
Working temp.	Cooling (°C)	-5 ~ 50							
	Heating (°C)	-23 ~ 21							

Max drop between I.U. & O.U *1 - If the height difference between the outdoor and the indoor units is from 50 to 110 m, contact your local distributor / dealer for individual design and production.

Standard drop between I.U. & O.U *2 - Standard design and production in the factory.

Max drop between I.U. *3 - If the height difference between the indoor units is from 18 to 30 m, contact your local distributor/dealer for individual design and production.

Standard drop between I.U. *4 - Standard design and production in the factory.

* All the specifications are tested under nominal condition(in cooling, indoor temp. is 27 °C DB / 19 °C WB; Outdoor temp. 35 °C DB / 24 WB; in heating, indoor temp. is 20 °C DB, in heating, outdoor temp. is 7 °C DB / 6 °C WB).

Model		VMV-1360ARETA3	VMV-1415ARETA3	VMV-1470ARETA3	VMV-1512ARETA3	VMV-1568ARETA3	VMV-1624ARETA3	VMV-1680ARETA3	
	Combination model	VMV-680ARETA3	VMV-680ARETA3	VMV-735ARETA3	VMV-504ARETA3	VMV-504ARETA3	VMV-504ARETA3	VMV-560ARETA3	
		VMV-680ARETA3	VMV-735ARETA3	VMV-735ARETA3	VMV-504ARETA3	VMV-504ARETA3	VMV-560ARETA3	VMV-560ARETA3	
		-	-	-	VMV-504ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-560ARETA3	
		-	-	-	-	-	-	-	
Capacity	Capacity range (HP)	48	50	52	54	56	58	60	
	Cooling (kW)	136.0	141.5	147.0	151.2	156.8	162.4	168.0	
	Heating (kW)	136.0	141.5	147.0	151.2	156.8	162.4	168.0	
	Heating - Max. (kW)	146.0	155.5	165.0	169.5	174.5	179.5	184.5	
Electrical parameters	Power supply (Ph / V / Hz)		3 / 380 ~ 415 / 50 / 60						
	Cooling	Rated power input (kW)	43.87	46.68	49.49	47.10	48.02	48.94	49.85
		Max power input (kW)	58.20	62.10	66.00	64.20	67.90	71.60	75.30
		Rated current (A)	74.06	78.81	83.56	79.52	81.07	82.61	84.16
		Max current (A)	98.25	104.93	111.60	108.38	114.63	120.88	127.12
	Heating	Rated power input (kW)	38.86	41.70	44.55	39.58	41.05	42.51	43.98
		Max power input (kW)	53.00	56.90	60.80	53.10	58.10	63.10	68.10
		Rated current (A)	65.60	70.40	75.20	66.82	69.30	71.77	74.25
		Max current (A)	89.48	96.06	102.64	89.64	98.08	106.53	114.97
	SEER		5.97	5.81	5.68	6.78	6.76	6.75	6.75
	SCOP		4.25	4.00	3.80	4.23	4.25	4.27	4.29
	$\eta_{s,c}$ (%)		236	229	224	268	268	267	267
	$\eta_{s,c}$ (%)		167	157	149	166	167	168	168
	Performance	Air flow (m ³ / h)	36000	37000	38000	51000	51000	51000	51000
Sound pressure level (dB(A))		65	65	65	65.8	65.8	65.8	65.8	

3 / 380 ~ 415 / 50 / 60



Total pipe length 1000 m, height drop 110 m



Auto addressing indoor units



Space saving



Better cooling capacity



VMV-252ARETA3
VMV-280ARETA3
VMV-335ARETA3
VMV-400ARETA3
VMV-450ARETA3



VMV-504ARETA3
VMV-560ARETA3
VMV-615ARETA3
VMV-680ARETA3
VMV-735ARETA3

Model		VMV-1360ARETA3	VMV-1415ARETA3	VMV-1470ARETA3	VMV-1512ARETA3	VMV-1568ARETA3	VMV-1624ARETA3	VMV-1680ARETA3
Installation	External dimensions - W/D/H (mm)	1410 / 750 / 1690 + 1410 / 750 / 1690			1410 / 750 / 1690 + 1410 / 750 / 1690 + 1410 / 750 / 1690			
	Shipping dimensions - W/D/H (mm)	1515 / 850 / 1858 + 1515 / 850 / 1858			1515 / 850 / 1858 + 1515 / 850 / 1858 + 1515 / 850 / 1858			
	Net / Shipping weight (kg)	370 / 400 + 370 / 400			287 / 317 + 287 / 317 + 287 / 317	287 / 317 + 287 / 317 + 370 / 400	287 / 317 + 370 / 400 + 370 / 400	370 / 400 + 370 / 400
	Compressor type	DC INV. SCROLL						
	Compressor quantity	4INV	4INV	4INV	3INV	4INV	5INV	6INV
	Refrigerant type	R410A						
	Refrigerant charge (kg)	20	20	20	30	30	30	30
	Refrigerant liquid pipe (mm)	19.05	19.05	19.05	19.05	19.05	19.05	19.05
	Refrigerant gas pipe (mm)	38.1	38.1	38.1	38.1	38.1	41.3	41.3
	Max.total pipe lenth (m)	1000						
	Max. pipe length (Equivalent / Actual)	260 / 220						
	Max drop between I.U. & O.U. (O.U. down / up) *1 (m)	110 / 90						
	Standard drop between I.U. & O.U. (O.U. up / down) *2 (m)	50 / 40						
	Max drop between I.U. *3 (m)	30						
	Standard drop between I.U. *4 (m)	18						
External static pressure (Pa)	110							
Connection ratio	Connectable indoor unit ratio (%)	50 ~ 130						
	Maximum number of indoor units	64	64	64	64	64	64	64
Working temp.	Cooling (°C)	-5 ~ 50						
	Heating (°C)	-23 ~ 21						

Max drop between I.U. & O.U. *1 - If the height difference between the outdoor and the indoor units is from 50 to 110 m, contact your local distributor / dealer for individual design and production.

Standard drop between I.U. & O.U. *2 - Standard design and production in the factory.

Max drop between I.U. *3 - If the height difference between the indoor units is from 18 to 30 m, contact your local distributor/dealer for individual design and production.

Standard drop between I.U. *4 - Standard design and production in the factory.

* All the specifications are tested under nominal condition (in cooling, indoor temp. is 27 °C DB / 19 °C WB; Outdoor temp. 35 °C DB / 24 WB; in heating, indoor temp. is 20 °C DB, in heating, outdoor temp. is 7 °C DB / 6 °C WB).

Model		VMV-1735ARETA3	VMV-1790ARETA3	VMV-1845ARETA3	VMV-1910ARETA3	VMV-1975ARETA3	VMV-2040ARETA3	VMV-2095ARETA3	
	Combination model	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-680ARETA3	VMV-735ARETA3	
		VMV-560ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3
		VMV-560ARETA3	VMV-560ARETA3	VMV-615ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3
		-	-	-	-	-	-	-	-
Capacity	Capacity range (HP)	62	64	66	68	70	72	74	
	Cooling (kW)	173.5	179.0	184.5	191.0	197.5	204.0	209.5	
	Heating (kW)	173.5	179.0	184.5	191.0	197.5	204.0	209.5	
	Heating - Max. (kW)	192.0	199.5	207.0	211.0	215.0	219.0	228.5	
Electrical parameters	Power supply (Ph / V / Hz)	3 / 380 ~ 415 / 50 / 60							
	Cooling	Rated power input (kW)	51.54	53.22	54.91	58.54	62.17	65.81	68.62
		Max power input (kW)	78.70	82.10	85.50	86.10	86.70	87.30	91.20
		Rated current (A)	87.01	89.85	92.70	98.83	104.96	111.09	115.84
		Max current (A)	132.86	138.60	144.34	145.35	146.37	147.38	154.05
	Heating	Rated power input (kW)	45.94	47.90	49.86	52.67	55.48	58.29	61.13
		Max power input (kW)	70.90	73.70	76.50	77.50	78.50	79.50	83.40
		Rated current (A)	77.56	80.87	84.18	88.92	93.66	98.40	103.20
		Max current (A)	119.69	124.42	129.15	130.84	132.52	134.21	140.80
	SEER	6.67	6.60	6.54	6.32	6.13	5.97	5.86	
	SCOP	4.29	4.29	4.30	4.28	4.27	4.25	4.08	
	η _{s,c} (%)	264	261	259	250	242	236	231	
	η _{s,c} (%)	168	169	169	168	168	167	160	
Performance	Air flow (m ³ / h)	52000	53000	54000	54000	54000	54000	55000	
	Sound pressure level (dB(A))	65.8	65.8	65.8	66	66.5	66.8	66.8	

3 / 380 ~ 415 / 50 / 60



Total pipe length 1000 m, height drop 110 m



Auto addressing indoor units



Space saving



Better cooling capacity



VMV-252ARETA3
VMV-280ARETA3
VMV-335ARETA3
VMV-400ARETA3
VMV-450ARETA3



VMV-504ARETA3
VMV-560ARETA3
VMV-615ARETA3
VMV-680ARETA3
VMV-735ARETA3

Model		VMV-1735ARETA3	VMV-1790ARETA3	VMV-1845ARETA3	VMV-1910ARETA3	VMV-1975ARETA3	VMV-2040ARETA3	VMV-2095ARETA3
Installation	External dimensions - W/D/H (mm)	1410 / 750 / 1690 + 1410 / 750 / 1690 + 1410 / 750 / 1690						
	Shipping dimensions - W/D/H (mm)	1515 / 850 / 1858 + 1515 / 850 / 1858 + 1515 / 850 / 1858						
	Net / Shipping weight (kg)	370 / 400 + 370 / 400 + 370 / 400						
	Compressor type	DC INV. SCROLL						
	Compressor quantity	6INV	6INV	6INV	6INV	6INV	6INV	6INV
	Refrigerant type	R410A						
	Refrigerant charge (kg)	30	30	30	30	30	30	30
	Refrigerant liquid pipe (mm)	19.05	19.05	19.05	22.2	22.2	22.2	22.2
	Refrigerant gas pipe (mm)	41.3	41.3	41.3	44.5	44.5	44.5	44.5
	Max.total pipe length (m)	1000						
	Max. pipe length (Equivalent / Actual)	260 / 220						
	Max drop between I.U. & O.U. (O.U. down / up) *1 (m)	110 / 90						
	Standard drop between I.U. & O.U. (O.U. up / down) *2 (m)	50 / 40						
	Max drop between I.U. *3 (m)	30						
	Standard drop between I.U. *4 (m)	18						
External static pressure (Pa)	110							
Connection ratio	Connectable indoor unit ratio (%)	50 ~ 130						
	Maximum number of indoor units	64	64	64	64	64	64	64
Working temp.	Cooling (°C)	-5 ~ 50						
	Heating (°C)	-23 ~ 21						

Max drop between I.U. & O.U *1 - If the height difference between the outdoor and the indoor units is from 50 to 110 m, contact your local distributor / dealer for individual design and production.

Standard drop between I.U. & O.U *2 - Standard design and production in the factory.

Max drop between I.U. *3 - If the height difference between the indoor units is from 18 to 30 m, contact your local distributor/dealer for individual design and production.

Standard drop between I.U. *4 - Standard design and production in the factory.

* All the specifications are tested under nominal condition (in cooling, indoor temp. is 27 °C DB / 19 °C WB; Outdoor temp. 35 °C DB / 24 WB; in heating, indoor temp. is 20 °C DB, in heating, outdoor temp. is 7 °C DB / 6 °C WB).

Model		VMV-2150ARETA3	VMV-2205ARETA3	VMV-2240ARETA3	VMV-2295ARETA3	VMV-2350ARETA3	VMV-2405ARETA3	VMV-2460ARETA3	VMV-2525ARETA3	
Combination model		VMV-735ARETA3	VMV-735ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-615ARETA3	VMV-680ARETA3	
		VMV-735ARETA3	VMV-735ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	
		VMV-680ARETA3	VMV-735ARETA3	VMV-560ARETA3	VMV-560ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	
		-	-	VMV-560ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	VMV-615ARETA3	
Capacity	Capacity range (HP)	76	78	80	82	84	86	88	90	
	Cooling (kW)	215.0	220.5	224.0	229.5	235.0	240.5	246.0	252.5	
	Heating (kW)	215.0	220.5	224.0	229.5	235.0	240.5	246.0	252.5	
	Heating - Max. (kW)	238.0	247.5	246.0	253.5	261.0	268.5	276.0	280.0	
Electrical parameters	Power supply (Ph / V / Hz)	3/380 - 415/50/60								
	Cooling	Rated power input (kW)	71.43	74.24	66.47	68.16	69.84	71.53	73.21	76.85
		Max power input (kW)	95.10	99.00	100.40	103.80	107.20	110.60	114.00	114.60
		Rated current (A)	120.59	125.34	112.21	115.06	117.91	120.75	123.60	129.73
		Max current (A)	160.73	167.40	169.50	175.24	180.98	186.72	192.46	193.47
	Heating	Rated power input (kW)	63.97	66.82	58.64	60.60	62.56	64.52	66.49	69.29
		Max power input (kW)	87.30	91.20	90.80	93.60	96.40	99.20	102.00	103.00
		Rated current (A)	108.00	112.80	98.99	102.31	105.62	108.93	112.24	116.98
		Max current (A)	147.38	153.96	153.29	158.02	162.74	167.47	172.20	173.89
	SEER	5.76	5.68	6.75	6.69	6.64	6.59	6.54	6.37	
	SCOP	3.93	3.80	4.29	4.29	4.29	4.29	4.30	4.29	
	$\eta_{s,c}$ (%)	228	224	267	265	262	260	259	252	
	$\eta_{s,c}$ (%)	154	149	168	168	169	169	169	169	
	Performance	Air flow (m ³ / h)	56000	57000	68000	69000	70000	71000	72000	72000
Sound pressure level (dB(A))		66.8	66.8	67	67	67	67	67	67.5	

3 / 380 ~ 415 / 50 / 60



Total pipe length 1000 m, height drop 110 m



Auto addressing indoor units



Space saving



Better cooling capacity



VMV-252ARETA3
VMV-280ARETA3
VMV-335ARETA3
VMV-400ARETA3
VMV-450ARETA3



VMV-504ARETA3
VMV-560ARETA3
VMV-615ARETA3
VMV-680ARETA3
VMV-735ARETA3

Model		VMV-2150ARETA3	VMV-2205ARETA3	VMV-2240ARETA3	VMV-2295ARETA3	VMV-2350ARETA3	VMV-2405ARETA3	VMV-2460ARETA3	VMV-2525ARETA3	
Installation	External dimensions - W/D/H (mm)	1410 / 750 / 1690 + 1410 / 750 / 1690 + 1410 / 750 / 1690			1410 / 750 / 1690 + 1410 / 750 / 1690 + 1410 / 750 / 1690 + 1410 / 750 / 1690					
	Shipping dimensions - W/D/H (mm)	1515 / 850 / 1858 + 1515 / 850 / 1858 + 1515 / 850 / 1858			1515 / 850 / 1858 + 1515 / 850 / 1858 + 1515 / 850 / 1858 + 1515 / 850 / 1858					
	Net / Shipping weight (kg)	370 / 400 + 370 / 400 + 370 / 400			370 / 400 + 370 / 400 + 370 / 400 + 370 / 400					
	Compressor type	DC INV. SCROLL								
	Compressor quantity	6INV	6INV	8INV	8INV	8INV	8INV	8INV	8INV	8INV
	Refrigerant type	R410A								
	Refrigerant charge (kg)	30	30	40	40	40	40	40	40	40
	Refrigerant liquid pipe (mm)	22.2	22.2	22.2	22.2	22.2	22.2	25.4	25.4	25.4
	Refrigerant gas pipe (mm)	44.5	44.5	44.5	44.5	44.5	44.5	50.8	50.8	50.8
	Max.total pipe lenth (m)	1000								
	Max. pipe length (Equivalent / Actual)	260 / 220								
	Max drop between I.U. & O.U. (O.U. down / up) *1 (m)	110 / 90								
	Standard drop between I.U. & O.U. (O.U. up / down) *2 (m)	50 / 40								
	Max drop between I.U. *3 (m)	30								
Standard drop between I.U. *4 (m)	18									
External static pressure (Pa)	110									
Connection ratio	Connectable indoor unit ratio (%)	50 ~ 130								
	Maximum number of indoor units	64	64	64	64	64	64	64	64	64
Working temp.	Cooling (°C)	-5 ~ 50								
	Heating (°C)	-23 ~ 21								

Max drop between I.U. & O.U *1 - If the height difference between the outdoor and the indoor units is from 50 to 110 m, contact your local distributor / dealer for individual design and production.

Standard drop between I.U. & O.U *2 - Standard design and production in the factory.

Max drop between I.U. *3 - If the height difference between the indoor units is from 18 to 30 m, contact your local distributor/dealer for individual design and production.

Standard drop between I.U. *4 - Standard design and production in the factory.

* All the specifications are tested under nominal condition (in cooling, indoor temp. is 27 °C DB / 19 °C WB; Outdoor temp. 35 °C DB / 24 WB; in heating, indoor temp. is 20 °C DB, in heating, outdoor temp. is 7 °C DB / 6 °C WB).

Model		VMV-2590ARETA3	AV941MVEVA	VMV-2655ARETA3	VMV-2720ARETA3	VMV-2775ARETA3	VMV-2830ARETA3	VMV-2885ARETA3	
Combination model	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-735ARETA3	VMV-735ARETA3	VMV-735ARETA3	VMV-735ARETA3	
	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-735ARETA3	VMV-735ARETA3	VMV-735ARETA3	
	VMV-615ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-735ARETA3	VMV-735ARETA3	
	VMV-615ARETA3	VMV-615ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-680ARETA3	VMV-735ARETA3	
Capacity	Capacity range (HP)	92	94	96	98	100	102	104	
	Cooling (kW)	259.0	265.5	272.0	277.5	283.0	288.5	294.0	
	Heating (kW)	259.0	265.5	272.0	277.5	283.0	288.5	294.0	
	Heating - Max. (kW)	284.0	288.0	292.0	301.5	311.0	320.5	330.0	
Electrical parameters	Power supply (Ph / V / Hz)	3/380 ~ 415/50/60							
	Cooling	Rated power input (kW)	80.48	84.11	87.74	90.55	93.37	96.18	98.99
		Max power input (kW)	115.20	115.80	116.40	120.30	124.20	128.10	132.00
		Rated current (A)	135.86	142.00	148.13	152.87	157.62	162.37	167.12
		Max current (A)	194.48	195.49	196.51	203.18	209.85	216.53	223.20
	Heating	Rated power input (kW)	72.10	74.91	77.71	80.56	83.40	86.25	89.09
		Max power input (kW)	104.00	105.00	106.00	109.90	113.80	117.70	121.60
		Rated current (A)	121.72	126.46	131.20	136.00	140.80	145.60	150.40
		Max current (A)	175.57	177.26	178.95	185.53	192.12	198.70	205.29
	SEER	6.22	6.09	5.97	5.89	5.81	5.74	5.68	
	SCOP	4.27	4.26	4.25	4.12	4.00	3.90	3.80	
	η _{s,c} (%)	246	241	236	232	229	227	224	
	η _{s,c} (%)	168	167	167	162	157	153	149	
Performance	Air flow (m³ / h)	72000	72000	72000	73000	74000	75000	76000	
	Sound pressure level (dB(A))	67.5	68	68	68	68	68	68	

3 / 380 ~ 415 / 50 / 60



Total pipe length 1000 m, height drop 110 m



Auto addressing indoor units



Space saving



Better cooling capacity



VMV-252ARETA3
VMV-280ARETA3
VMV-335ARETA3
VMV-400ARETA3
VMV-450ARETA3



VMV-504ARETA3
VMV-560ARETA3
VMV-615ARETA3
VMV-680ARETA3
VMV-735ARETA3

Model		VMV-2590ARETA3	AV94IMVEVA	VMV-2655ARETA3	VMV-2720ARETA3	VMV-2775ARETA3	VMV-2830ARETA3	VMV-2885ARETA3
Installation	External dimensions - W/D/H (mm)	1410 / 750 / 1690 + 1410 / 750 / 1690 + 1410 / 750 / 1690 + 1410 / 750 / 1690						
	Shipping dimensions - W/D/H (mm)	1515 / 850 / 1858 + 1515 / 850 / 1858 + 1515 / 850 / 1858 + 1515 / 850 / 1858						
	Net / Shipping weight (kg)	370 / 400 + 370 / 400 + 370 / 400 + 370 / 400						
	Compressor type	DC INV. SCROLL						
	Compressor quantity	8INV	8INV	8INV	8INV	8INV	8INV	8INV
	Refrigerant type	R410A						
	Refrigerant charge (kg)	40	40	40	40	40	40	40
	Refrigerant liquid pipe (mm)	25.4	25.4	25.4	25.4	25.4	25.4	25.4
	Refrigerant gas pipe (mm)	50.8	50.8	50.8	54.1	54.1	54.1	54.1
	Max.total pipe lenth (m)	1000						
	Max. pipe length (Equivalent / Actual)	260 / 220						
	Max drop between I.U. & O.U. (O.U. down / up) *1 (m)	110 / 90						
	Standard drop between I.U. & O.U. (O.U. up / down) *2 (m)	50 / 40						
	Max drop between I.U. *3 (m)	30						
Standard drop between I.U. *4 (m)	18							
External static pressure (Pa)	110							
Connection ratio	Connectable indoor unit ratio (%)	50 ~ 130						
	Maximum number of indoor units	64	64	64	64	64	64	64
Working temp.	Cooling (°C)	-5 ~ 50						
	Heating (°C)	-23 ~ 21						

Max drop between I.U. & O.U. *1 - If the height difference between the outdoor and the indoor units is from 50 to 110 m, contact your local distributor / dealer for individual design and production.

Standard drop between I.U. & O.U. *2 - Standard design and production in the factory.

Max drop between I.U. *3 - If the height difference between the indoor units is from 18 to 30 m, contact your local distributor/dealer for individual design and production.

Standard drop between I.U. *4 - Standard design and production in the factory.

* All the specifications are tested under nominal condition (in cooling, indoor temp. is 27 °C DB / 19 °C WB; Outdoor temp. 35 °C DB / 24 WB; in heating, indoor temp. is 20 °C DB, in heating, outdoor temp. is 7 °C DB / 6 °C WB).