

Engineering Data

V8 Series VRF



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|---------------------|---------------------|
| MV8-252WV2RN1E(PRO) | MV8-560WV2RN1E(PRO) |
| MV8-280WV2RN1E(PRO) | MV8-615WV2RN1E(PRO) |
| MV8-335WV2RN1E(PRO) | MV8-670WV2RN1E(PRO) |
| MV8-400WV2RN1E(PRO) | MV8-730WV2RN1E(PRO) |
| MV8-450WV2RN1E(PRO) | MV8-785WV2RN1E(PRO) |
| MV8-500WV2RN1E(PRO) | MV8-850WV2RN1E(PRO) |
| | MV8-900WV2RN1E(PRO) |

1 Specifications

8-14HP

Table 2-1.1: 8-14HP specifications

HP			8	10	12	14
Model			MV8-252WV2RN1E(PRO)	MV8-280WV2RN1E(PRO)	MV8-335WV2RN1E(PRO)	MV8-400WV2RN1E(PRO)
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	25.2	28.0	33.5	40.0
		kBtu/h	85.9	95.5	114.2	136.4
	Power input	kW	7.8	8.8	11.6	14.0
	EER		3.21	3.20	2.88	2.85
Heating2(Rated)	Capacity	kW	25.2	28.0	33.5	40.0
		kBtu/h	85.9	95.5	114.2	136.4
	Power input	kW	6.4	7.4	9.5	11.3
	COP		3.91	3.77	3.53	3.53
Heating2(Max)	Capacity	kW	27.0	31.5	37.5	45.0
		kBtu/h	92.1	107.4	127.9	153.5
	Power input	kW	7.1	8.7	11.4	13.4
	COP		3.83	3.62	3.30	3.35
SEER			7.33	7.25	7.19	7.28
η _{s,c}		%	290.27	287.00	284.46	288.06
SCOP			4.33	4.27	4.29	4.37
η _{s,h}		%	170.05	167.72	168.50	171.80
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		13	16	19	23
Compressor	Type		DC inverter			
	Quantity		1			
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		1			
	Motor output	kW	0.56	0.56	0.56	0.92
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m ³ /h	12600	12600	13500	15600
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	7	7	7	8.4
Pipe connections ³	Liquid pipe	mm	Φ12.7	Φ12.7	Φ12.7	Φ15.9
	Gas pipe	mm	Φ25.4	Φ25.4	Φ25.4	Φ28.6
Sound pressure level ⁴		dB(A)	58	58	61	65
Sound power level ⁴		dB(A)	83	84	85	86
Net dimensions (W×H×D)		mm	940×1760×825			
Packed dimensions (W×H×D)		mm	1010×1945×890			
Net weight		kg	195	195	195	215
Gross weight		kg	213	213	213	232
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Diameters given are those of the unit's stop valve.
- 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.

16-22HP

Table 2-1.2: 16-22HP specifications

HP			16	18	20	22
Model			MV8-450WV2RN1E(PRO)	MV8-500WV2RN1E(PRO)	MV8-560WV2RN1E(PRO)	MV8-615WV2RN1E(PRO)
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	45.0	50.0	56.0	61.5
		kBtu/h	153.5	170.5	191.0	209.7
	Power input	kW	18.4	18.1	22.1	25.8
	EER			2.45	2.76	2.54
Heating2(Rated)	Capacity	kW	45.0	50.0	56.0	61.5
		kBtu/h	153.5	170.5	191.0	209.7
	Power input	kW	12.7	13.6	15.7	17.4
	COP			3.53	3.68	3.56
Heating2(Max)	Capacity	kW	50.0	56.0	63.0	69.0
		kBtu/h	170.5	191.0	214.8	235.3
	Power input	kW	15.9	15.8	18.1	21.6
	COP			3.15	3.54	3.49
SEER			6.83	7.03	6.63	6.63
η _{s,c}		%	270.14	278.16	262.22	262.32
SCOP			4.27	4.25	4.20	4.35
η _{s,h}		%	167.72	167.00	165.00	171.00
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		26	29	33	36
Compressor	Type		DC inverter			
	Quantity		1	2		
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		1	2		
	Motor output	kW	0.92	0.56×2	0.56×2	0.56×2
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m ³ /h	15600	22000	22000	21500
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	8.4	9.3	9.3	11.96
Pipe connections ³	Liquid pipe	mm	Φ15.9	Φ15.9	Φ15.9	Φ15.9
	Gas pipe	mm	Φ28.6	Φ28.6	Φ28.6	Φ28.6
Sound pressure level ⁴	dB(A)	65	65	66	66	
Sound power level ⁴	dB(A)	86	88	89	89	
Net dimensions (W×H×D)	mm	940×1760×825	1340×1760×825			
Packed dimensions (W×H×D)	mm	1010×1945×890	1410×1945×890			
Net weight	kg	215	295	295	315	
Gross weight	kg	232	315	315	335	
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Diameters given are those of the unit's stop valve.
- 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.

24-30HP

Table 2-1.3: 24-30HP specifications

HP			24	26	28	30
Model			MV8-670WV2RN1E(PRO)	MV8-730WV2RN1E(PRO)	MV8-785WV2RN1E(PRO)	MV8-850WV2RN1E(PRO)
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	67.0	73.0	78.5	85.0
		kBtu/h	228.5	248.9	267.7	289.9
	Power input	kW	31.4	35.4	32.4	37.8
	EER			2.14	2.06	2.42
Heating2(Rated)	Capacity	kW	67.0	73.0	78.5	85.0
		kBtu/h	228.5	248.9	267.7	289.9
	Power input	kW	19.1	22.1	23.1	25.1
	COP			3.50	3.30	3.40
Heating2(Max)	Capacity	kW	75.0	81.5	87.5	95.0
		kBtu/h	255.8	277.9	298.4	324.0
	Power input	kW	21.7	25.2	28.7	28.4
	COP			3.45	3.24	3.05
SEER			6.14	5.69	6.02	5.93
ηs,c		%	242.42	224.66	237.85	234.08
SCOP			4.28	4.27	4.28	4.20
ηs,h		%	168.20	167.80	168.20	165.00
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		39	43	46	50
Compressor	Type		DC inverter			
	Quantity		2			
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		2			
	Motor output	kW	0.56×2	0.92×2	0.92×2	0.92×2
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m3/h	21500	29000	28000	28000
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	11.96	11.96	11.96	11.96
Pipe connections3	Liquid pipe	mm	Φ15.9	Φ22.2	Φ22.2	Φ22.2
	Gas pipe	mm	Φ28.6	Φ31.8	Φ34.9	Φ34.9
Sound pressure level4		dB(A)	67	68	68	68
Sound power level4		dB(A)	92	93	93	93
Net dimensions (W×H×D)		mm	1340×1760×825	1880×1760×825		
Packed dimensions (W×H×D)		mm	1410×1945×890	1935×1945×890		
Net weight		kg	315	366	396	396
Gross weight		kg	335	396	426	426
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Diameters given are those of the unit's stop valve.
- 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.

32-38HP

Table 2-1.4: 32-38HP specifications

HP			32	34	36	38
Model			MV8-900WV2RN1E(PRO)	MV8-960WV2RN1E(PRO)	MV8-1010WV2RN1E(PRO)	MV8-1070WV2RN1E(PRO)
Combination type			-	14HP+20HP	16HP+20HP	14HP+24HP
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	90.0	96.0	101.0	107.0
		kBtu/h	306.9	327.4	344.4	364.9
	Power input	kW	43.9	36.1	40.4	45.4
	EER			2.05	2.66	2.50
Heating2(Rated)	Capacity	kW	90.0	96.0	101.0	107.0
		kBtu/h	306.9	327.4	344.4	364.9
	Power input	kW	27.8	27.1	28.5	30.5
	COP			3.24	3.54	3.54
Heating2(Max)	Capacity	kW	100.0	108.0	113.0	120.0
		kBtu/h	341.0	368.3	385.3	409.2
	Power input	kW	31.4	31.5	33.9	35.2
	COP			3.19	3.43	3.33
SEER			5.78	6.89	6.72	6.52
ηs,c	%		228.09	272.41	265.69	257.70
SCOP			4.20	4.27	4.23	4.31
ηs,h	%		165.00	167.77	166.20	169.53
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		53	56	59	62
Compressor	Type		DC inverter			
	Quantity		2	3		
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		2	3		
	Motor output	kW	0.92×2	0.56×2+0.92	0.56×2+0.92	0.56×2+0.92
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m ³ /h	28000	37600	37600	37100
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	11.96	8.4+9.3	8.4+9.3	8.4+11.96
Pipe connections ³	Liquid pipe	mm	Φ22.2	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ34.9	Φ31.8	Φ38.1	Φ38.1
Sound pressure level ⁴		dB(A)	68	69	69	69
Sound power level ⁴		dB(A)	93	93	91	93
Net dimensions (W×H×D)		mm	1880×1760×825	(940×1760×825)+(1340×1760×825)		
Packed dimensions (W×H×D)		mm	1935×1945×890	(1010×1945×890)+(1410×1945×890)		
Net weight		kg	396	215+295	215+295	215+315
Gross weight		kg	426	232+315	232+315	232+335
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

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40-46HP

Table 2-1.5: 40-46HP specifications

HP			40	42	44	46
Model			MV8-1120WV2RN1E(PRO)	MV8-1170WV2RN1E(PRO)	MV8-1230WV2RN1E(PRO)	MV8-1285WV2RN1E(PRO)
Combination type			16HP+24HP	18HP+24HP	22HP+22HP	22HP+24HP
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	112.0	117.0	123.0	128.5
		kBtu/h	381.9	399.0	419.4	438.2
	Power input	kW	49.7	49.5	51.7	57.2
	EER			2.25	2.36	2.38
Heating2(Rated)	Capacity	kW	112.0	117.0	123.0	128.5
		kBtu/h	381.9	399.0	419.4	438.2
	Power input	kW	31.9	32.7	34.7	36.5
	COP			3.51	3.58	3.54
Heating2(Max)	Capacity	kW	125.0	131.0	138.0	144.0
		kBtu/h	426.3	446.7	470.6	491.0
	Power input	kW	37.6	37.6	43.1	43.3
	COP			3.32	3.48	3.20
SEER			6.40	6.49	6.63	6.36
ηs,c		%	252.85	256.51	262.32	251.56
SCOP			4.28	4.27	4.35	4.31
ηs,h		%	168.01	167.69	171.00	169.53
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		64			
Compressor	Type		DC inverter			
	Quantity		3	4	4	4
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		3	4	4	4
	Motor output	kW	0.56×2+0.92	0.56×4	0.56×4	0.56×4
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m3/h	37100	43500	43000	43000
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	8.4+11.96	9.3+11.96	11.96×2	11.96×2
Pipe connections ³	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ38.1	Φ38.1	Φ38.1	Φ38.1
Sound pressure level ⁴		dB(A)	69	69	69	70
Sound power level ⁴		dB(A)	93	94	92	94
Net dimensions (W×H×D)		mm	(940×1760×825)+(1340×1760×825)	(1340×1760×825)×2		
Packed dimensions (W×H×D)		mm	(1010×1945×890)+(1410×1945×890)	(1410×1945×890)×2		
Net weight		kg	215+315	295+315	315×2	315×2
Gross weight		kg	232+335	315+335	335×2	335×2
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

48-54HP

Table 2-1.6: 48-54HP specifications

HP			48	50	52	54
Model			MV8-1340WV2RN1E(PRO)	MV8-1400WV2RN1E(PRO)	MV8-1460WV2RN1E(PRO)	MV8-1515WV2RN1E(PRO)
Combination type			24HP+24HP	18HP+32HP	20HP+32HP	22HP+32HP
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	134.0	140.0	146.0	151.5
		kBtu/h	456.9	477.4	497.9	516.6
	Power input	kW	62.7	62.0	66.0	69.7
	EER			2.14	2.26	2.21
Heating2(Rated)	Capacity	kW	134.0	140.0	146.0	151.5
		kBtu/h	456.9	477.4	497.9	516.6
	Power input	kW	38.3	41.4	43.5	45.2
	COP			3.50	3.38	3.36
Heating2(Max)	Capacity	kW	150.0	156.0	163.0	169.0
		kBtu/h	511.5	532.0	555.8	576.3
	Power input	kW	43.5	47.2	49.5	53.0
	COP			3.45	3.31	3.29
SEER			6.14	6.17	6.08	6.10
ηs,c		%	242.42	243.79	240.09	240.86
SCOP			4.28	4.22	4.20	4.26
ηs,h		%	168.20	165.71	165.00	167.39
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		64			
Compressor	Type		DC inverter			
	Quantity		4			
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		4			
	Motor output	kW	0.56×4	0.56×2+0.92×2	0.56×2+0.92×2	0.56×2+0.92×2
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m3/h	43000	50000	50000	49500
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	11.96×2	9.3+11.96	9.3+11.96	11.96×2
Pipe connections ³	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ38.1	Φ38.1	Φ38.1	Φ38.1
Sound pressure level ⁴		dB(A)	70	70	70	70
Sound power level ⁴		dB(A)	95	94	95	95
Net dimensions (W×H×D)		mm	(1340×1760×825)×2	(1340×1760×825)+(1880×1760×825)		
Packed dimensions (W×H×D)		mm	(1410×1945×890)×2	(1410×1945×890)+(1935×1945×890)		
Net weight		kg	315×2	295+396	295+396	315+396
Gross weight		kg	335×2	315+426	315+426	335+426
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

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56-62HP

Table 2-1.7: 56-62HP specifications

HP			56	58	60	62
Model			MV8-1570WV2RN1E(PRO)	MV8-1630WV2RN1E(PRO)	MV8-1685WV2RN1E(PRO)	MV8-1750WV2RN1E(PRO)
Combination type			24HP+32HP	26HP+32HP	28HP+32HP	30HP+32HP
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	157.0	163.0	168.5	175.0
		kBtu/h	535.4	555.8	574.6	596.8
	Power input	kW	75.3	79.3	76.3	81.7
	EER		2.08	2.06	2.21	2.14
Heating2(Rated)	Capacity	kW	157.0	163.0	168.5	175.0
		kBtu/h	535.4	555.8	574.6	596.8
	Power input	kW	46.9	49.9	50.9	52.9
	COP		3.35	3.27	3.31	3.31
Heating2(Max)	Capacity	kW	175.0	181.5	187.5	195.0
		kBtu/h	596.8	618.9	639.4	665.0
	Power input	kW	53.1	56.6	60.1	59.8
	COP		3.30	3.21	3.12	3.26
SEER			5.92	5.74	5.89	5.85
ηs,c		%	234.00	226.54	232.54	230.96
SCOP			4.23	4.23	4.24	4.20
ηs,h		%	166.35	166.24	166.48	165.00
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		64			
Compressor	Type		DC inverter			
	Quantity		4			
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		4			
	Motor output	kW	0.56×2+0.92×2	0.92×4	0.92×4	0.92×4
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m3/h	49500	57000	56000	56000
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	11.96×2	11.96×2	11.96×2	11.96×2
Pipe connections ³	Liquid pipe	mm	Φ19.1	Φ19.1	Φ19.1	Φ19.1
	Gas pipe	mm	Φ41.3	Φ41.3	Φ41.3	Φ41.3
Sound pressure level ⁴		dB(A)	71	71	71	71
Sound power level ⁴		dB(A)	96	96	96	96
Net dimensions (W×H×D)		mm	(1340×1760×825)+(1880×1760×825)	(1880×1760×825)×2		
Packed dimensions (W×H×D)		mm	(1410×1945×890)+(1935×1945×890)	(1935×1945×890)×2		
Net weight		kg	315+396	366+396	396×2	396×2
Gross weight		kg	335+426	396+426	426×2	426×2
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

64-70HP

Table 2-1.8: 64-70HP specifications

HP			64	66	68	70
Model			MV8-1800WV2RN1E(PRO)	MV8-1860WV2RN1E(PRO)	MV8-1910WV2RN1E(PRO)	MV8-1970WV2RN1E(PRO)
Combination type			32HP+32HP	14HP+20HP+32HP	16HP+20HP+32HP	14HP+24HP+32HP
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	180.0	186.0	191.0	197.0
		kBtu/h	613.8	634.3	651.3	671.8
	Power input	kW	87.8	80.0	84.3	89.3
	EER			2.05	2.33	2.27
Heating2(Rated)	Capacity	kW	180.0	186.0	191.0	197.0
		kBtu/h	613.8	634.3	651.3	671.8
	Power input	kW	55.6	54.8	56.3	58.3
	COP			3.24	3.39	3.39
Heating2(Max)	Capacity	kW	200.0	208.0	213.0	220.0
		kBtu/h	682.0	709.3	726.3	750.2
	Power input	kW	62.8	62.9	65.3	66.6
	COP			3.18	3.31	3.26
SEER			5.78	6.30	6.24	6.16
η _{s,c}		%	228.09	249.02	246.56	243.28
SCOP			4.20	4.24	4.22	4.26
η _{s,h}		%	165.00	166.42	165.63	167.43
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		64			
Compressor	Type		DC inverter			
	Quantity		4	5	5	5
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		4	5	5	5
	Motor output	kW	0.92×4	0.56×2+0.92×3	0.56×2+0.92×3	0.56×2+0.92×3
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m ³ /h	56000	65600	65600	65100
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	11.96×2	8.4+9.3+11.96	8.4+9.3+11.96	8.4+11.96×2
Pipe connections ³	Liquid pipe	mm	Φ19.1	Φ19.1	Φ22.2	Φ22.2
	Gas pipe	mm	Φ41.3	Φ41.3	Φ44.5	Φ44.5
Sound pressure level ⁴		dB(A)	71	71	72	72
Sound power level ⁴		dB(A)	96	95	95	96
Net dimensions (W×H×D)		mm	(1880×1760×825)×2	(940×1760×825)+(1340×1760×825)+(1880×1760×825)		
Packed dimensions (W×H×D)		mm	(1935×1945×890)×2	(1010×1945×890)+(1410×1945×890)+(1935×1945×890)		
Net weight		kg	396×2	215+295+396	215+295+396	215+315+396
Gross weight		kg	426×2	232+315+426	232+315+426	232+335+426
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

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72-74HP

Table 2-1.9: 72-74HP specifications

HP			72	74
Model			MV8-2020WV2RN1E(PRO)	MV8-2070WV2RN1E(PRO)
Combination type			16HP+24HP+32HP	18HP+24HP+32HP
Power supply			380-415V, 3N~, 50Hz	
Cooling1	Capacity	kW	202.0	207.0
		kBtu/h	688.8	705.9
	Power input	kW	93.6	93.4
	EER		2.16	2.22
Heating2(Rated)	Capacity	kW	202.0	207.0
		kBtu/h	688.8	705.9
	Power input	kW	59.7	60.5
	COP		3.38	3.42
Heating2(Max)	Capacity	kW	225.0	231.0
		kBtu/h	767.3	787.7
	Power input	kW	69.0	69.0
	COP		3.26	3.35
SEER			6.10	6.16
ηs,c		%	241.19	243.34
SCOP			4.24	4.24
ηs,h		%	166.65	166.51
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	
	Maximum quantity		64	
Compressor	Type		DC inverter	
	Quantity		5	6
	Oil type		FVC68D	
	Start-up method		Soft start	
Fan	Type		Propeller	
	Motor type		DC	
	Quantity		5	6
	Motor output	kW	0.56×2+0.92×3	0.56×4+0.92×2
	Static pressure	Pa	0-20 (default); 20-120 (customized)	
	Airflow rate	m3/h	65100	71500
	Drive type		Direct	
Refrigerant	Type		R410A	
	Factory charge	kg	8.4+11.96×2	9.3+11.96×2
Pipe connections3	Liquid pipe	mm	Φ22.2	Φ22.2
	Gas pipe	mm	Φ44.5	Φ44.5
Sound pressure level4		dB(A)	72	72
Sound power level4		dB(A)	96	96
Net dimensions (W×H×D)		mm	(940×1760×825)+(1340×1760×825)+(1880×1760×825)	(1340×1760×825)×2+(1880×1760×825)
Packed dimensions (W×H×D)		mm	(1010×1945×890)+(1410×1945×890)+(1935×1945×890)	(1410×1945×890)×2+(1935×1945×890)
Net weight		kg	215+315+396	295+315+396
Gross weight		kg	232+335+426	315+335+426
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

76-80HP

Table 2-1.10: 76-80HP specifications

HP			76	78	80
Model			MV8-2130WV2RN1E(PRO)	MV8-2185WV2RN1E(PRO)	MV8-2240WV2RN1E(PRO)
Combination type			22HP+22HP+32HP	22HP+24HP+32HP	24HP+24HP+32HP
Power supply			380-415V, 3N~, 50Hz		
Cooling1	Capacity	kW	213.0	218.5	224.0
		kBtu/h	726.3	745.1	763.8
	Power input	kW	95.6	101.1	106.6
	EER			2.23	2.16
Heating2(Rated)	Capacity	kW	213.0	218.5	224.0
		kBtu/h	726.3	745.1	763.8
	Power input	kW	62.5	64.3	66.1
	COP			3.41	3.40
Heating2(Max)	Capacity	kW	238.0	244.0	250.0
		kBtu/h	811.6	832.0	852.5
	Power input	kW	74.5	74.7	74.9
	COP			3.19	3.27
SEER			6.24	6.11	5.99
η _{s,c}		%	246.69	241.34	236.45
SCOP			4.29	4.27	4.25
η _{s,h}		%	168.41	167.63	166.90
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressor	Type		DC inverter		
	Quantity		6	6	6
	Oil type		FVC68D		
	Start-up method		Soft start		
Fan	Type		Propeller		
	Motor type		DC		
	Quantity		6	6	6
	Motor output	kW	0.56×4+0.92×2	0.56×4+0.92×2	0.56×4+0.92×2
	Static pressure	Pa	0-20 (default); 20-120 (customized)		
	Airflow rate	m ³ /h	71000	71000	71000
	Drive type		Direct		
Refrigerant	Type		R410A		
	Factory charge	kg	11.96×3	11.96×3	11.96×3
Pipe connections ³	Liquid pipe	mm	Φ22.2	Φ22.2	Φ22.2
	Gas pipe	mm	Φ44.5	Φ44.5	Φ44.5
Sound pressure level ⁴		dB(A)	72	72	72
Sound power level ⁴		dB(A)	96	96	97
Net dimensions (W×H×D)		mm	(1340×1760×825)×2+(1880×1760×825)		
Packed dimensions (W×H×D)		mm	(1410×1945×890)×2+(1935×1945×890)		
Net weight		kg	315×2+396	315×2+396	315×2+396
Gross weight		kg	335×2+426	335×2+426	335×2+426
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

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82-88HP

Table 2-1.11: 82-88HP specifications

HP			82	84	86	88
Model			MV8-2300WV2RN1E(PRO)	MV8-2360WV2RN1E(PRO)	MV8-2415WV2RN1E(PRO)	MV8-2470WV2RN1E(PRO)
Combination type			18HP+32HP+32HP	20HP+32HP+32HP	22HP+32HP+32HP	24HP+32HP+32HP
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	230.0	236.0	241.5	247.0
		kBtu/h	784.3	804.8	823.5	842.3
	Power input	kW	105.9	109.9	113.6	119.2
	EER		2.17	2.15	2.13	2.07
Heating2(Rated)	Capacity	kW	230.0	236.0	241.5	247.0
		kBtu/h	784.3	804.8	823.5	842.3
	Power input	kW	69.1	71.3	72.9	74.7
	COP		3.33	3.31	3.31	3.31
Heating2(Max)	Capacity	kW	256.0	263.0	269.0	275.0
		kBtu/h	873.0	896.8	917.3	937.8
	Power input	kW	78.6	80.9	84.4	84.5
	COP		3.26	3.25	3.19	3.25
SEER			6.01	5.96	5.97	5.87
η _{s,c}		%	237.40	235.37	235.94	231.81
SCOP			4.21	4.20	4.24	4.22
η _{s,h}		%	165.43	165.00	166.49	165.86
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		64			
Compressor	Type		DC inverter			
	Quantity		6	6	6	6
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		6	6	6	6
	Motor output	kW	0.56×2+0.92×4	0.56×2+0.92×4	0.56×2+0.92×4	0.56×2+0.92×4
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m ³ /h	78000	78000	77500	77500
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	9.3+11.96×2	9.3+11.96×2	11.96×3	11.96×3
Pipe connections ³	Liquid pipe	mm	Φ22.2	Φ25.4	Φ25.4	Φ25.4
	Gas pipe	mm	Φ44.5	Φ50.8	Φ50.8	Φ50.8
Sound pressure level ⁴		dB(A)	72	72	72	72
Sound power level ⁴		dB(A)	97	97	97	98
Net dimensions (W×H×D)		mm	(1340×1760×825)+(1880×1760×825)×2			
Packed dimensions (W×H×D)		mm	(1410×1945×890)+(1935×1945×890)×2			
Net weight		kg	295+396×2	295+396×2	315+396×2	315+396×2
Gross weight		kg	315+426×2	315+426×2	335+426×2	335+426×2
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

90-96HP

Table 2-1.12: 90-96HP specifications

HP			90	92	94	96
Model			MV8-2530WV2RN1E(PRO)	MV8-2585WV2RN1E(PRO)	MV8-2650WV2RN1E(PRO)	MV8-2700WV2RN1E(PRO)
Combination type			26HP+32HP+32HP	28HP+32HP+32HP	30HP+32HP+32HP	32HP+32HP+32HP
Power supply			380-415V, 3N~, 50Hz			
Cooling1	Capacity	kW	253.0	258.5	265.0	270.0
		kBtu/h	862.7	881.5	903.7	920.7
	Power input	kW	123.2	120.2	125.6	131.7
	EER		2.05	2.15	2.11	2.05
Heating2(Rated)	Capacity	kW	253.0	258.5	265.0	270.0
		kBtu/h	862.7	881.5	903.7	920.7
	Power input	kW	77.7	78.6	80.6	83.3
	COP		3.26	3.29	3.29	3.24
Heating2(Max)	Capacity	kW	281.5	287.5	295.0	300.0
		kBtu/h	959.9	980.4	1006.0	1023.0
	Power input	kW	88.0	91.5	91.2	94.2
	COP		3.20	3.14	3.23	3.18
SEER		5.75	5.85	5.82	5.78	
η _{s,c}	%	227.09	230.97	229.98	228.09	
SCOP		4.22	4.22	4.20	4.20	
η _{s,h}	%	165.80	165.96	165.00	165.00	
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		64			
Compressor	Type		DC inverter			
	Quantity		6	6	6	6
	Oil type		FVC68D			
	Start-up method		Soft start			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		6	6	6	6
	Motor output	kW	0.92×6	0.92×6	0.92×6	0.92×6
	Static pressure	Pa	0-20 (default); 20-120 (customized)			
	Airflow rate	m ³ /h	85000	84000	84000	84000
	Drive type		Direct			
Refrigerant	Type		R410A			
	Factory charge	kg	11.96×3	11.96×3	11.96×3	11.96×3
Pipe connections ³	Liquid pipe	mm	Φ25.4	Φ25.4	Φ25.4	Φ25.4
	Gas pipe	mm	Φ50.8	Φ50.8	Φ50.8	Φ50.8
Sound pressure level ⁴	dB(A)	73	73	73	73	
Sound power level ⁴	dB(A)	98	98	98	98	
Net dimensions (W×H×D)	mm	(1880×1760×825)×3				
Packed dimensions (W×H×D)	mm	(1935×1945×890)×3				
Net weight	kg	366+396×2	396×3	396×3	396×3	
Gross weight	kg	396+426×2	426×3	426×3	426×3	
Ambient temp. operation range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	-15 to 55
	Heating	°C	-30 to 30	-30 to 30	-30 to 30	-30 to 30

Notes:

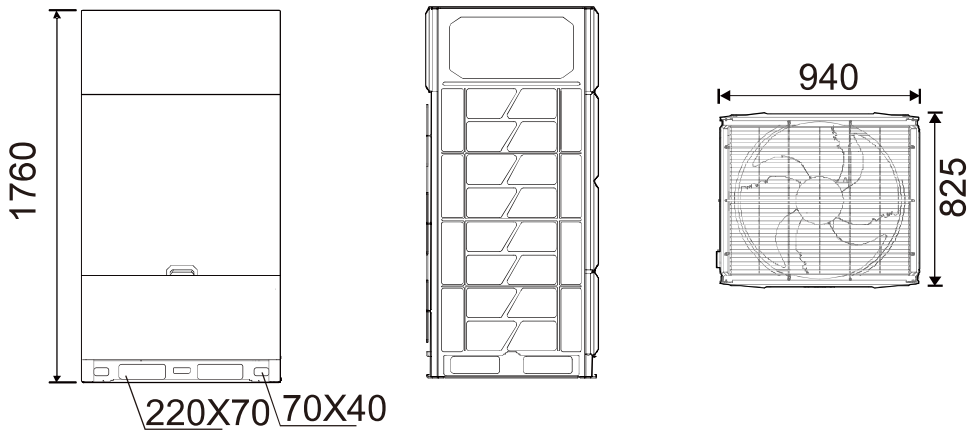
- Indoor air temperature 27°C DB, 19°C WB; outdoor air temperature 35°C DB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- Indoor air temperature 20°C DB; outdoor air temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 5m with zero level difference; connect to Four-Way Cassette indoor unit.
- 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. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- 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.

2 Dimensions

2.1 Single Units

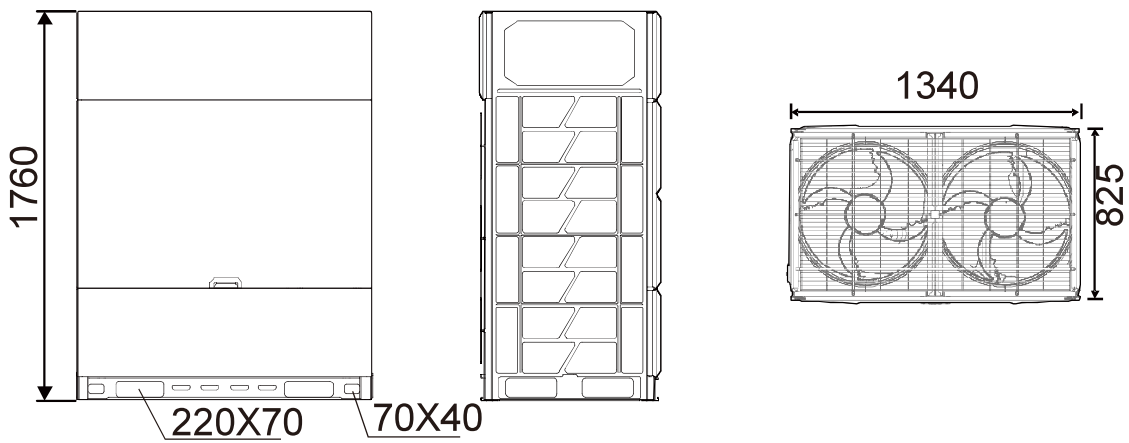
8/10/12/14/16 HP

Figure 2-2.1: 8/10/12/14/16 HP dimensions (unit: mm)



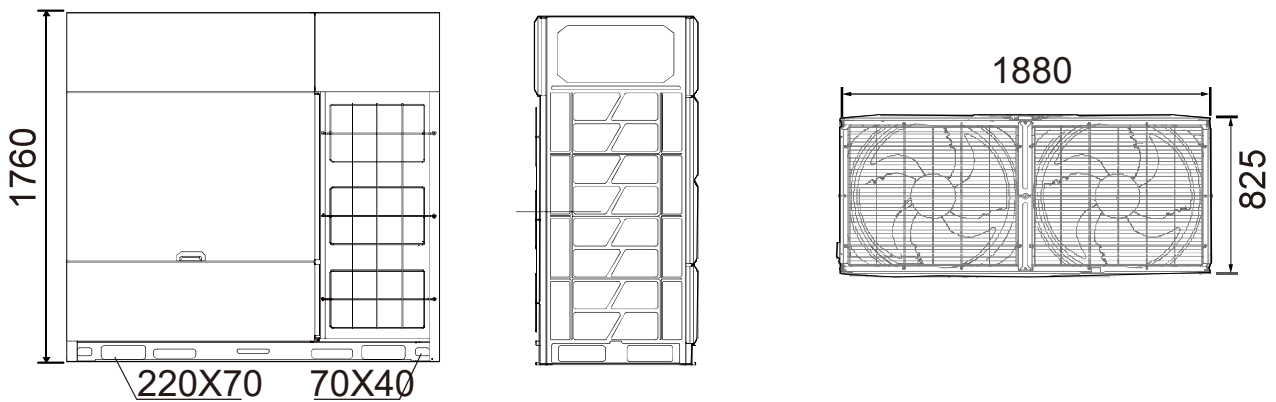
18/20/22/24HP

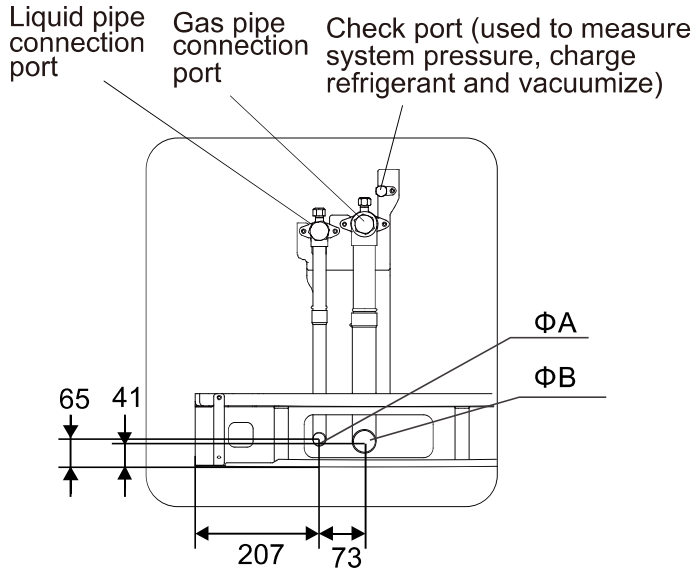
Figure 2-2.2: 18/20/22/24HP dimensions (unit: mm)



26/28/30/32HP

Figure 2-2.3: 26/28/30/32HP dimensions (unit: mm)



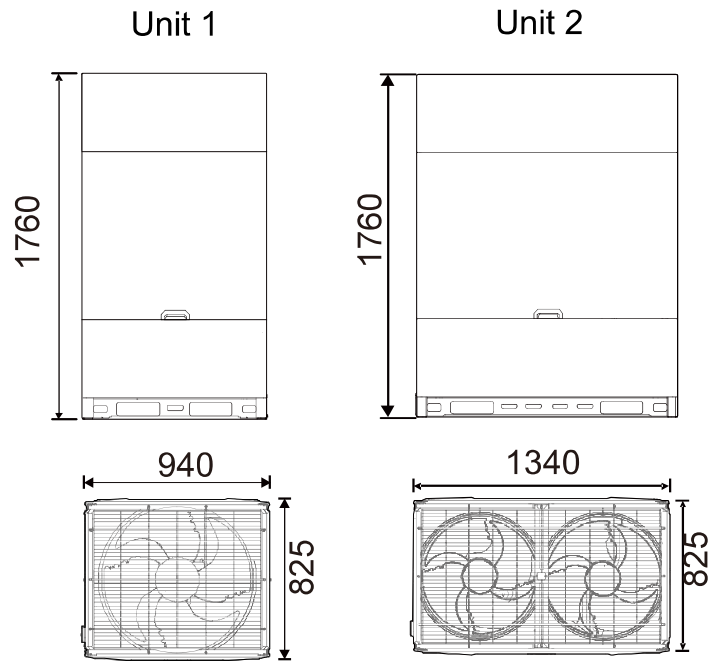
Detail R
Figure 2-2.4: Detail R (unit: mm)

Table 2-2.1: Connection piping diameter (unit: mm)

Size	ΦA(Liquid)	ΦB(Gas)
8HP	Φ12.7	Φ25.4
10HP	Φ12.7	Φ25.4
12HP	Φ12.7	Φ25.4
14HP	Φ15.9	Φ28.6
16HP	Φ15.9	Φ28.6
18HP	Φ19.1	Φ31.8
20HP	Φ19.1	Φ31.8
22HP	Φ19.1	Φ31.8
24HP	Φ19.1	Φ31.8
26HP	Φ22.2	Φ31.8
28HP	Φ22.2	Φ38.1
30HP	Φ22.2	Φ38.1
32HP	Φ22.2	Φ38.1

2.2 Combinations of Units

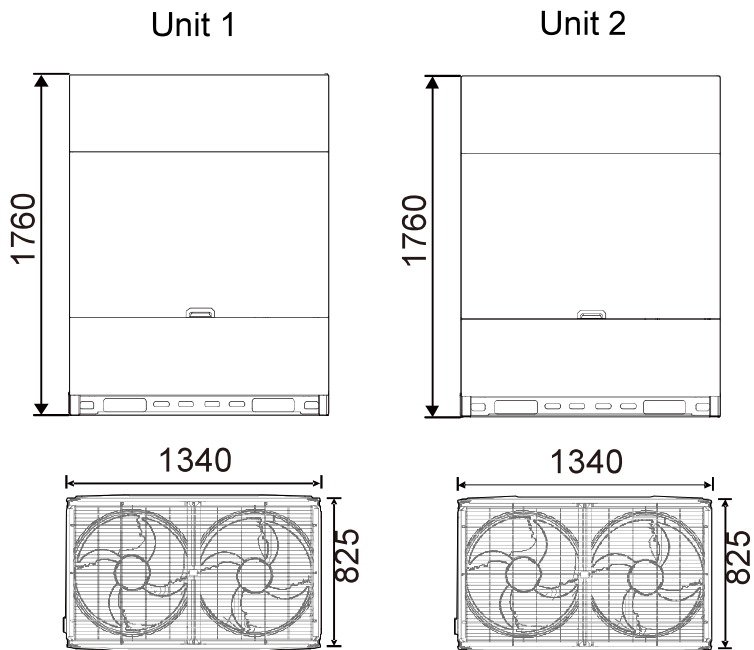
34/36/38/40HP

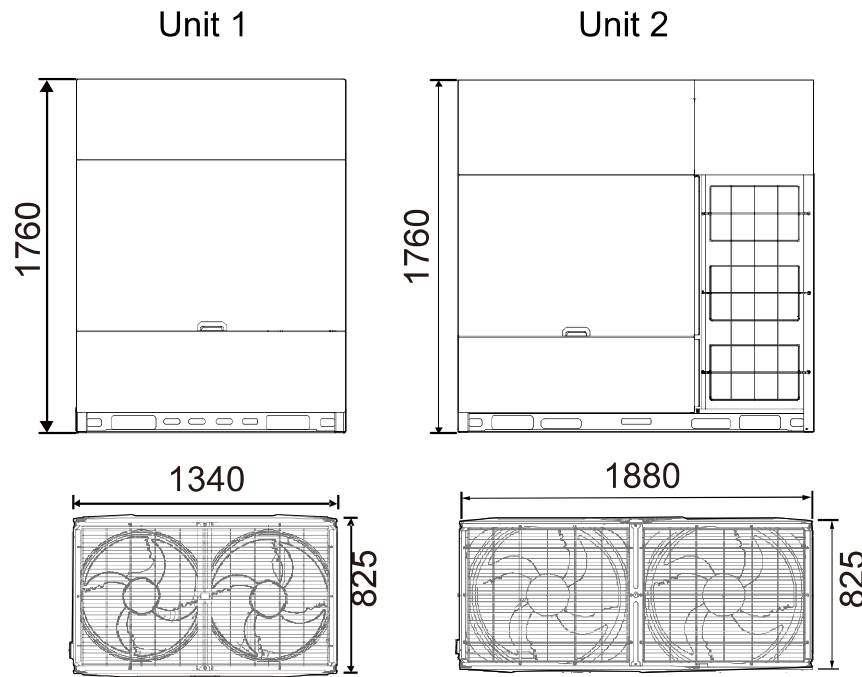
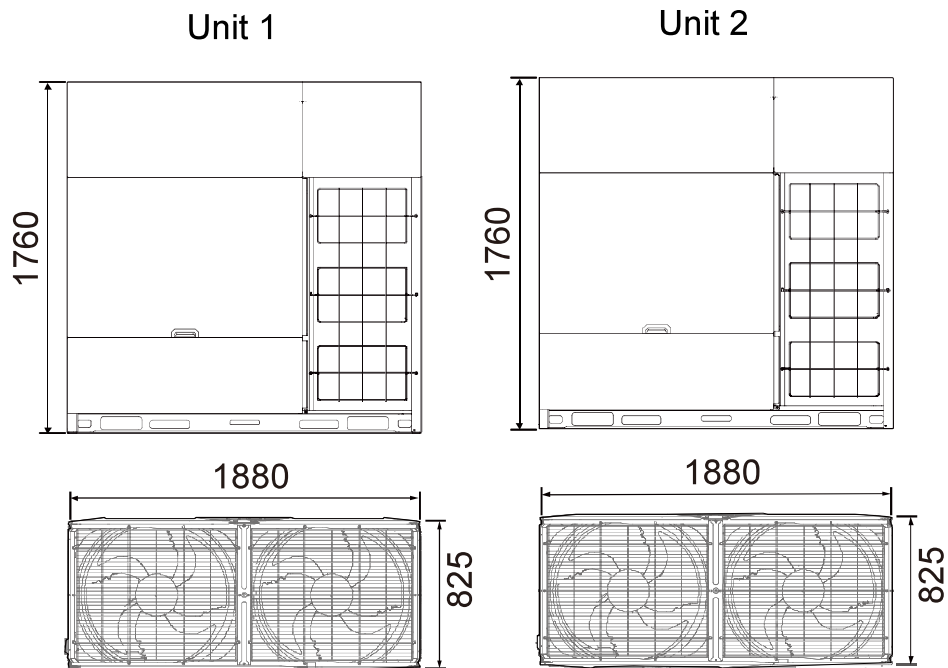
Figure 2-2.5: 34/36/38/40HP dimensions (unit: mm)



42/44/46/48HP

Figure 2-2.6: 42/44/46/48HP dimensions (unit: mm)



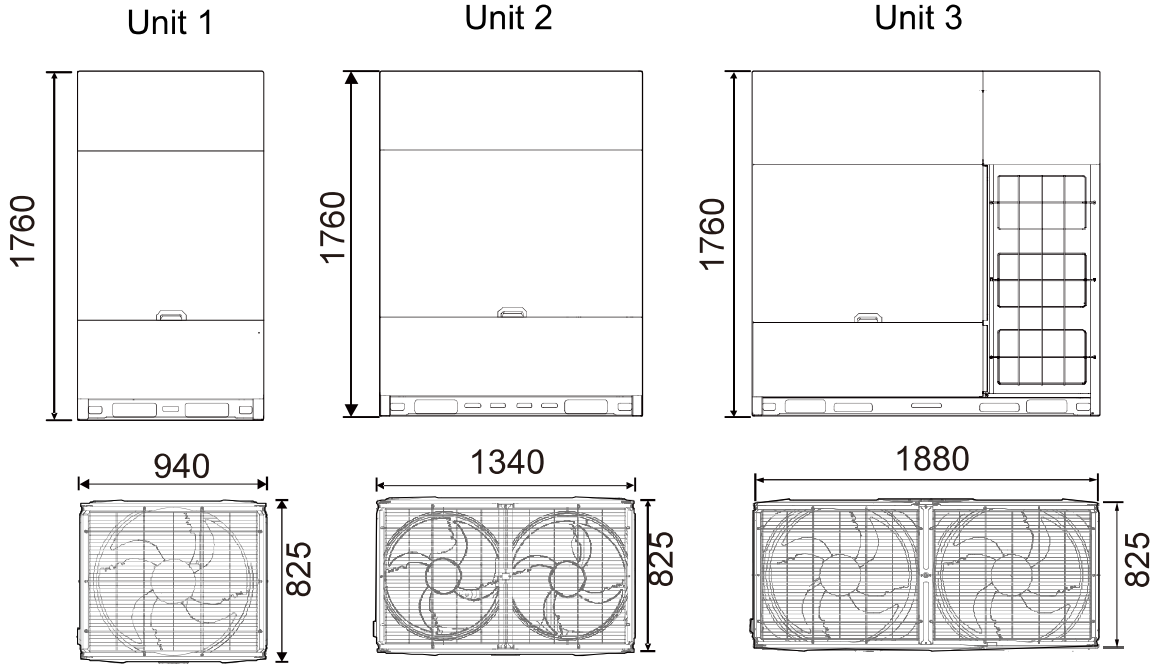
50/52/54/56HP
Figure 2-2.7: 50/52/54/56HP dimensions (unit: mm)

58/60/62/64HP
Figure 2-2.8: 58/60/62/64HP dimensions (unit: mm)


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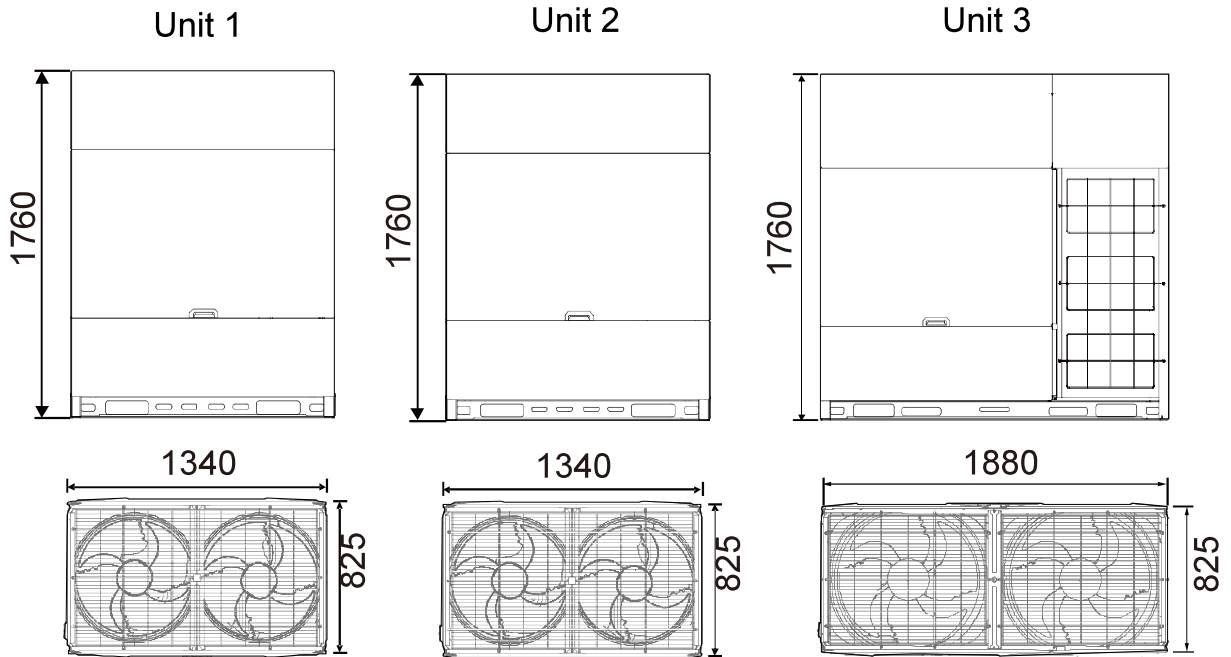
66/68/70/72HP

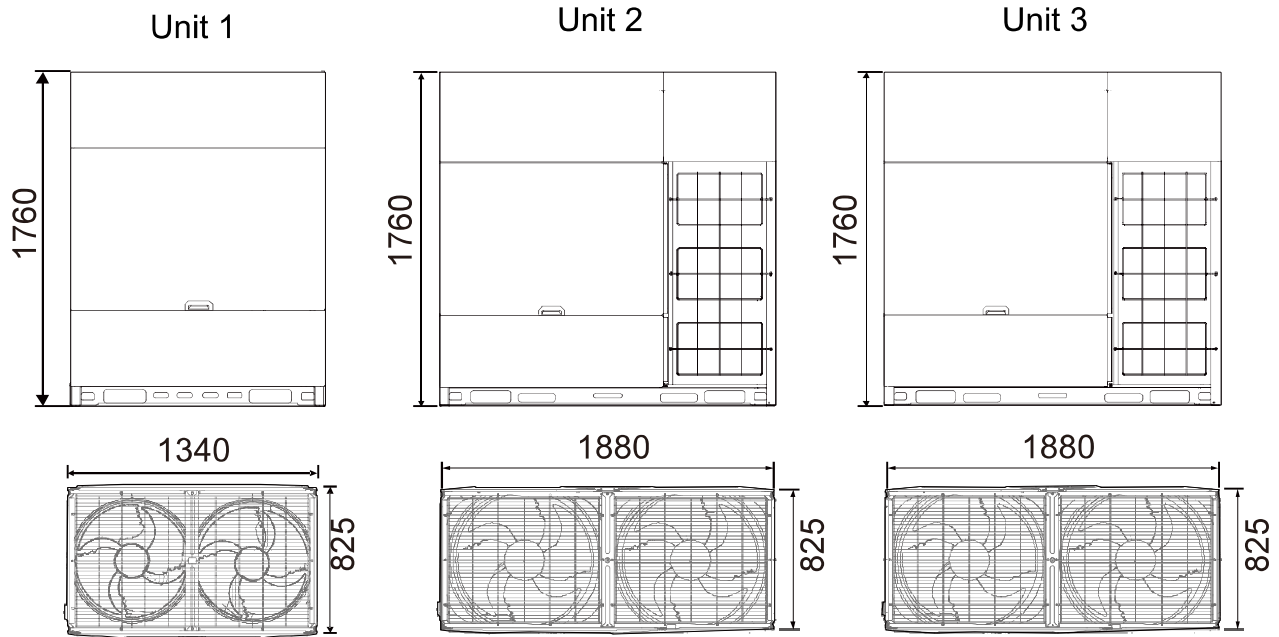
Figure 2-2.9: 66/68/70/72HP dimensions (unit: mm)



74/76/78/80HP

Figure 2-2.10: 74/76/78/80HP dimensions (unit: mm)



82/84/86/88HP
Figure 2-2.11: 82/84/86/88HP dimensions (unit: mm)

90/92/94/96HP
Figure 2-2.12: 90/92/94/96HP dimensions (unit: mm)
