

VARIABLE REFRIGERANT FLOW (VRF) AHU 22kW – 255kW





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AHU (INDOOR UNIT)



Hygienically designed AHU suitable for hospital, cleanroom, F&B

CASING

- Composite design of frame enhanced mechanical strength and thermal isolation.
- Enclosed double-skin panels with polyurethane foam accordance to EN ISO 14509.
- Pre-painted GI skin for both interior and exterior.

01



02

FILTER

- Provide various filter media with EN ISO 779 standard.



UV LIGHT

- Can be installed to prevent fungi and bacterial.

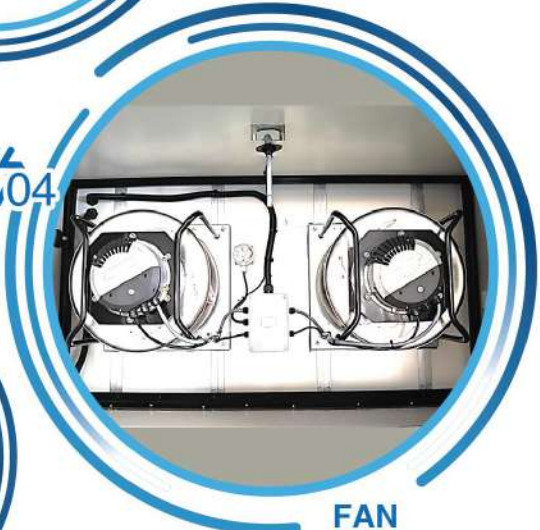
03



COIL

- Various coils selection certified under AHRI 410 standard.
- Provide anti-corrosion with hydrophilic fins coil with DIN 50 021 standard.
- Tint coating and heresite coating can be apply on aluminium or copper fins.
- Compliance to ISO 12944-5.

04



FAN

- EC fan that come with external rotor motor that meet IE 4 efficiency standard.

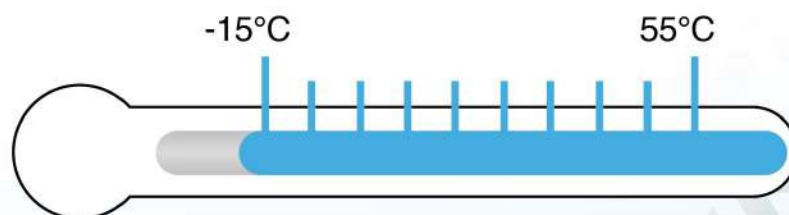
WIDE CAPACITY RANGE

The capacity of single unit is from 8HP to 90HP with up to 3 units combined.



WIDE OPERATION RANGE

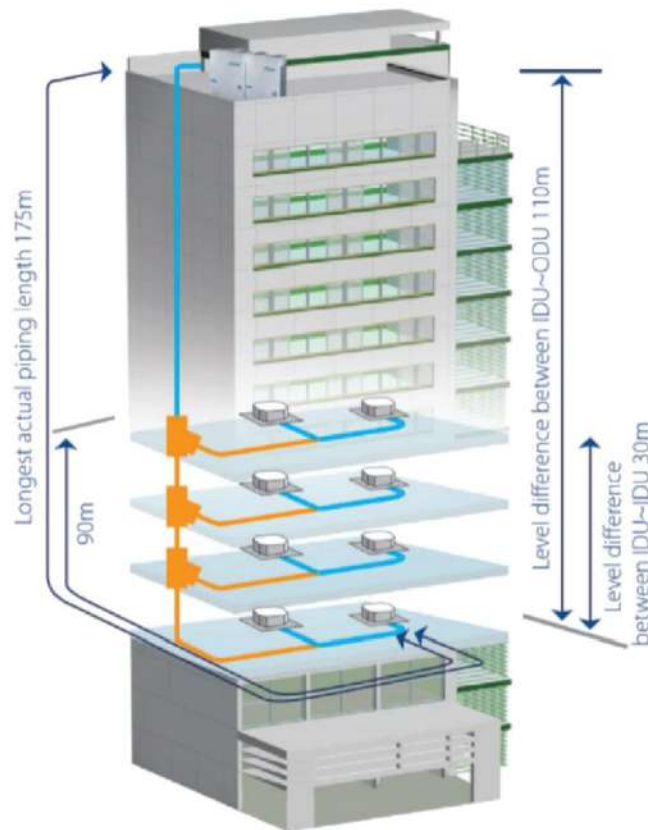
The VRF can operate stably in a wide ambient temperature range: from -15°C to 55°C in cooling mode.



LONG PIPING CAPABILITY

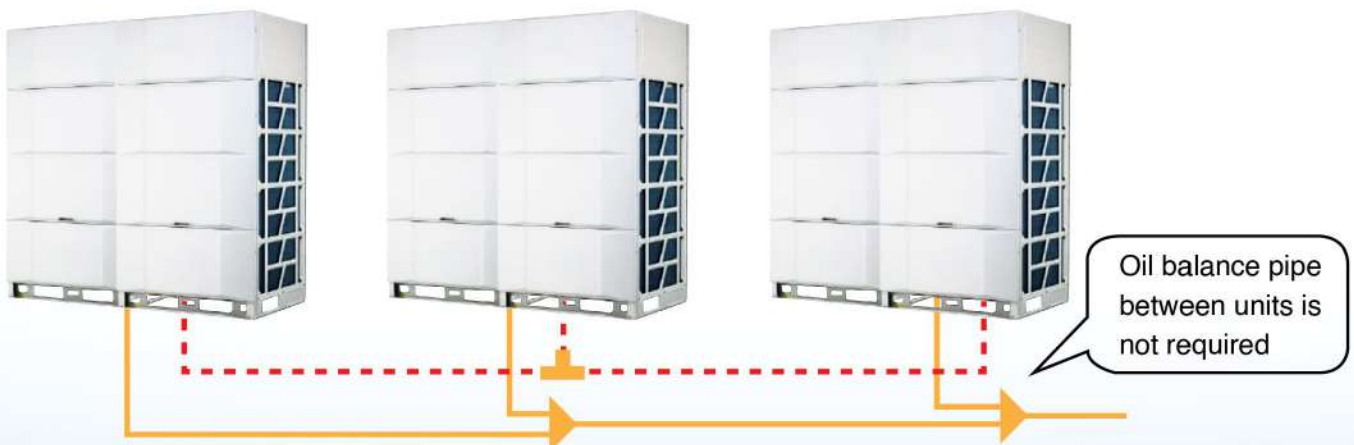
- Total piping length: 1000m
- Longest piping length - actual (equivalent): 175m(200m)
- Longest piping length after first branch: 40/90*m
- Level difference between IDUs and ODU-ODU above (below): 90m (110m)
- Level difference between IDUs: 30m

* The longest length after 1st branch is 40m as standard but can be extended up to 90m under certain conditions.



OIL BALANCE PIPE NOT REQUIRED

With the new oil management system, there is no need of oil balance pipe.



VRF AHU OVERVIEW



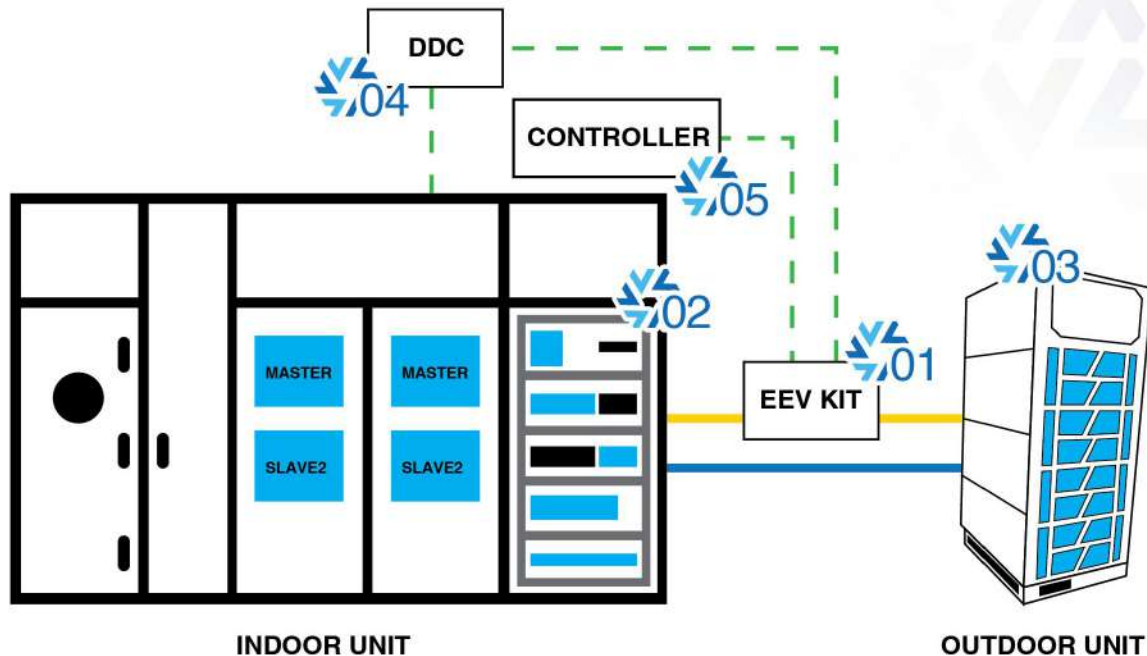
EEV KIT

- Fully integrated design with an EEV kit compartment.



CONTROL PANEL

- SCADA ready system and HMI screen for advanced monitoring and control with a user-friendly real-time data interface



SUPPORT BOTH STANDARD AHU AND HRV



CONTROLLER

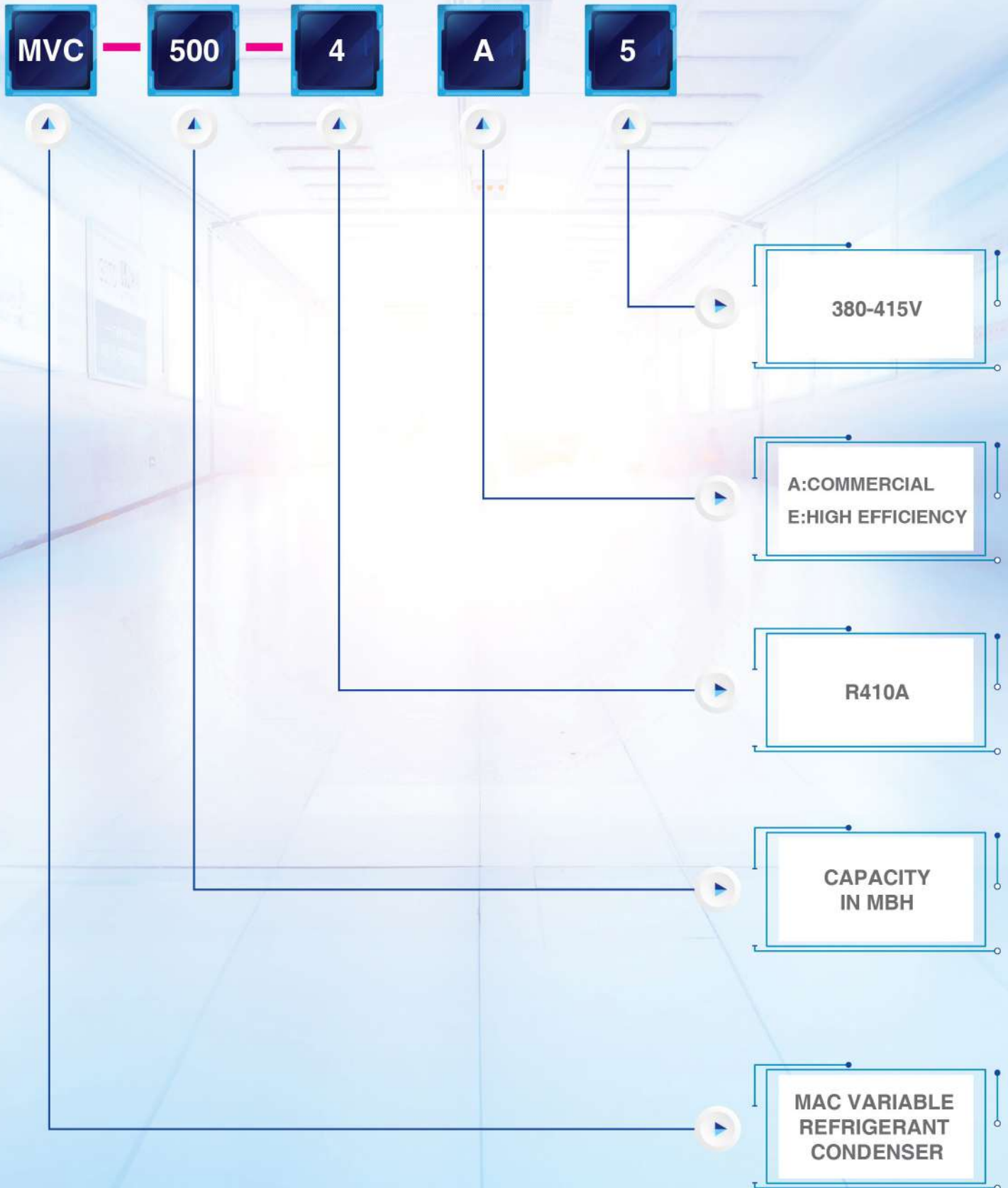


DDC



OUTDOOR UNIT

VRF MODEL SERIES NAME



GENERAL DATA - AIR-COOLED CONDENSING UNIT (R410A)

HP			8	10	12
Model Name			MVC-80-4A5	MVC-100-4A5	MVC-120-4A5
Power Supply		V/N/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling ¹	Capacity	kW	22.4	28	33.5
		kBtu/h	76.4	95.5	114.2
	Power Input	kW	4.8	6.8	8.8
		EER	4.65	4.14	3.81
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		13	16	19
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		1	1	1
Fan	Type		DC	DC	DC
	Quantity		1	1	1
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
		m³/h	12600	12600	13500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge		7.4	7.4	7.4
Pipe connections ¹	Liquid pipe		ø12.7	ø12.7	ø12.7
	Gas pipe		ø25.4	ø25.4	ø25.4
Sound Pressure Level ¹		dB(A)	57	58	60
Net Dimensions (WxHxD)		mm	940x1760x825	940x1760x825	940x1760x825
Packed Dimensions (WxHxD)		mm	1010x1945x890	1010x1945x890	1010x1945x890
Net Weight		kg	185	185	185
Gross Weight		kg	200	200	200
Ambient Temp. Operation Range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

HP			14	16	18
Model Name			MVC-140-4A5	MVC-160-4A5	MVC-180-4A5
Power Supply		V/N/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling ¹	Capacity	kW	40	45	50
		kBtu/h	136.4	153.5	170.5
	Power Input	kW	9.7	12.3	13.4
		EER	4.12	3.67	3.74
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		23	26	29
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		1	1	1
Fan	Type		DC	DC	DC
	Quantity		1	1	1
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
		m³/h	15600	15600	16500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge		8.4	8.4	10
Pipe connections ¹	Liquid pipe		ø15.9	ø15.9	ø15.9
	Gas pipe		ø28.6	ø28.6	ø28.6
Sound Pressure Level ¹		dB(A)	60	61	62
Net Dimensions (WxHxD)		mm	940x1760x825	940x1760x825	940x1760x825
Packed Dimensions (WxHxD)		mm	1010x1945x890	1010x1945x890	1010x1945x890
Net Weight		kg	200	200	212
Gross Weight		kg	215	215	232
Ambient Temp. Operation Range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

Note:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those of the unit's stop valves.
- 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.

GENERAL DATA - AIR-COOLED CONDENSING UNIT (R410A)

HP			20	22	24
Model Name			MVC-200-4A5	MVC-220-4A5	MVC-240-4A5
Power Supply	V/N/Hz		380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling ¹	Capacity	kW	56	61.5	67
		kBtu/h	191	209.7	228.5
	Power Input	kW	17.4	17.3	19
		EER	3.21	3.55	3.52
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		33	36	39
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		1	1	1
Fan	Type		DC	DC	DC
	Quantity		1	1	1
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
		m³/h	16500	21500	21500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge		10	12.8	12.8
Pipe connections ¹	Liquid pipe		ø15.9	ø19.1	ø19.1
	Gas pipe		ø28.6	ø31.8	ø31.8
Sound Pressure Level ¹	dB(A)		63	63	64
Net Dimensions (WxHxD)	mm		940x1760x825	1340x1760x825	1340x1760x825
Packed Dimensions (WxHxD)	mm		1010x1945x890	1410x1945x890	1410x1945x890
Net Weight	kg		225	260	260
Gross Weight	kg		245	285	285
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

HP			26	28	30
Model Name			MVC-260-4A5	MVC-280-4A5	MVC-300-4A5
Power Supply	V/N/Hz		380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling ¹	Capacity	kW	73	78.5	85
		kBtu/h	248.9	267.7	289.9
	Power Input	kW	19.4	22.3	26.4
		EER	3.76	3.52	3.22
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		43	46	50
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		2	2	2
Fan	Type		DC	DC	DC
	Quantity		2	2	2
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
		m³/h	22000	22000	22000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge		15.4	15.4	15.4
Pipe connections ¹	Liquid pipe		ø22.2	ø22.2	ø22.2
	Gas pipe		ø31.8	ø31.8	ø31.8
Sound Pressure Level ¹	dB(A)		64	64	64
Net Dimensions (WxHxD)	mm		1340x1760x825	1340x1760x825	1340x1760x825
Packed Dimensions (WxHxD)	mm		1410x1945x890	1410x1945x890	1410x1945x890
Net Weight	kg		325	325	325
Gross Weight	kg		350	350	350
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

Note:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those of the unit's stop valves.
- 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.

GENERAL DATA - AIR-COOLED CONDENSING UNIT (R410A)

HP			32	34	36
Model Name			MVC-320-4A5	MVC-340-4A5	MVC-360-4A5
Combination			16HP+16HP	14HP+20HP	16HP+20HP
Power Supply	V/N/Hz		380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling'	Capacity	kW	90	96	101
		kBtu/h	307	327.4	344.5
	Power Input	kW	24.6	27.1	29.7
	EER		3.66	3.54	3.4
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		53	56	59
Compressor			Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Type		DC inverter	DC inverter	DC inverter
Fan	Quantity		2	2	2
	Type		DC	DC	DC
	Quantity		2	2	2
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m³/h	31200	32100	32100
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.4x2	8.4+10	8.4+10
Pipe connections'	Liquid pipe	mm	ø19.1	ø19.1	ø19.1
	Gas pipe	mm	ø31.8	ø31.8	ø38.1
Sound Pressure Level'	dB(A)		64	65	65
Net Dimensions (WxHxD)	mm		(940x1760x825)x2	(940x1760x825)x2	(940x1760x825)x2
Packed Dimensions (WxHxD)	mm		(1010x1945x890)x2	(1010x1945x890)x2	(1010x1945x890)x2
Net Weight	kg		200x2	200+225	200+225
Gross Weight	kg		215x2	215+245	215+245
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

HP			38	40	42
Model Name			MVC-380-4A5	MVC-400-4A5	MVC-420-4A5
Combination			18HP+20HP	16HP+24HP	18HP+24HP
Power Supply	V/N/Hz		380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling'	Capacity	kW	106	112	117
		kBtu/h	361.5	382	399
	Power Input	kW	30.8	31.3	32.4
	EER		3.44	3.58	3.61
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		62	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		2	2	2
Fan	Type		DC	DC	DC
	Quantity		2	3	3
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m³/h	33000	37100	38000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10x2	8.4+12.8	10+12.8
Pipe connections'	Liquid pipe	mm	ø19.1	ø19.1	ø19.1
	Gas pipe	mm	ø38.1	ø38.1	ø38.1
Sound Pressure Level'	dB(A)		66	66	66
Net Dimensions (WxHxD)	mm		(940x1760x825)x2	(940x1760x825) + (1340x1760x825)	(940x1760x825) + (1340x1760x825)
Packed Dimensions (WxHxD)	mm		(1010x1945x890)x2	(1010x1945x890) + (1410x1945x890)	(1010x1945x890) + (1410x1945x890)
Net Weight	kg		212+225	200+260	212+260
Gross Weight	kg		232+245	215+285	232+285
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

Note:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those 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 the Engineering Data Book 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.

GENERAL DATA - AIR-COOLED CONDENSING UNIT (R410A)

HP			44	46	48
Model Name			MVC-440-4A5	MVC-460-4A5	MVC-480-4A5
Combination			20HP+24HP	16HP+30HP	18HP+30HP
Power Supply			380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling ¹	Capacity	kW	123	130	135
		kBtu/h	419.5	443.4	460.4
	Power Input	kW	36.4	38.7	39.8
	EER		3.38	3.36	3.39
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		64	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		2	3	3
Fan	Type		DC	DC	DC
	Quantity		3	3	3
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m³/h	38000	37600	38500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10+12.8	8.4+15.4	10+15.4
Pipe connections ¹	Liquid pipe	mm	ø19.1	ø19.1	ø19.1
	Gas pipe	mm	ø38.1	ø38.1	ø38.1
Sound Pressure Level ¹	dB(A)		67	66	66
Net Dimensions (WxHxD)	mm		(940x1760x825) + (1340x1760x825)	(940x1760x825) + (1340x1760x825)	(940x1760x825) + (1340x1760x825)
Packed Dimensions (WxHxD)	mm		(1010x1945x890) + (1410x1945x890)	(1010x1945x890) + (1410x1945x890)	(1010x1945x890) + (1410x1945x890)
Net Weight	kg		225+260	200+325	212+325
Gross Weight	kg		245+285	215+350	232+350
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

HP			50	52	54
Model Name			MVC-500-4A5	MVC-520-4A5	MVC-540-4A5
Combination			20HP+30HP	22HP+30HP	24HP+30HP
Power Supply			380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling ¹	Capacity	kW	141	146.5	152
		kBtu/h	480.9	499.6	518.4
	Power Input	kW	43.8	43.7	45.4
	EER		3.22	3.35	3.35
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		64	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		3	3	3
Fan	Type		DC	DC	DC
	Quantity		3	4	4
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m³/h	38500	43500	43500
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10+15.4	12.8+15.4	12.8+15.4
Pipe connections ¹	Liquid pipe	mm	ø19.1	ø19.1	ø19.1
	Gas pipe	mm	ø38.1	ø38.1	ø38.1
Sound Pressure Level ¹	dB(A)		67	67	67
Net Dimensions (WxHxD)	mm		(940x1760x825) + (1340x1760x825)	(1340x1760x825)x2	(1340x1760x825)x2
Packed Dimensions (WxHxD)	mm		(1010x1945x890) + (1410x1945x890)	(1410x1945x890)x2	(1410x1945x890)x2
Net Weight	kg		225+325	260+325	260+325
Gross Weight	kg		245+350	285+350	285+350
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

Note:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those 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 the Engineering Data Book 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.

GENERAL DATA - AIR-COOLED CONDENSING UNIT (R410A)

HP			56	58	60
Model Name			MVC-560-4A5	MVC-580-4A5	MVC-600-4A5
Combination			26HP+30HP	28HP+30HP	30HP+30HP
Power Supply	V/N/Hz		380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling*	Capacity	kW	158	163.5	170
		kBtu/h	538.8	557.6	579.8
	Power Input	kW	45.8	48.7	52.8
	EER		3.45	3.36	3.22
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		64	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		4	4	4
Fan	Type		DC	DC	DC
	Quantity		4	4	4
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m³/h	44000	44000	44000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	15.4x2	15.4x2	15.4x2
Pipe connections*	Liquid pipe	mm	ø19.1	ø19.1	ø19.1
	Gas pipe	mm	ø41.3	ø41.3	ø41.3
Sound Pressure Level*	dB(A)		67	67	67
Net Dimensions (WxHxD)	mm		(1340x1760x825)x2	(1340x1760x825)x2	(1340x1760x825)x2
Packed Dimensions (WxHxD)	mm		(1410x1945x890)x2	(1410x1945x890)x2	(1410x1945x890)x2
Net Weight	kg		325x2	325x2	325x2
Gross Weight	kg		350x2	350x2	350x2
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

HP			62	64	66
Model Name			MVC-620-4A5	MVC-640-4A5	MVC-660-4A5
Combination			16HP+16HP+30HP	14HP+20HP+30HP	16HP+20HP+30HP
Power Supply	V/N/Hz		380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling'	Capacity	kW	175	181	186
		kBtu/h	596.9	617.3	634.4
	Power Input	kW	51	53.5	56.1
	EER		3.43	3.38	3.32
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		64	64	64
Compressor			Scroll DC	Scroll DC	Scroll DC
	Type		inverter	inverter	inverter
	Quantity		4	4	4
Fan	Type		DC	DC	DC
	Quantity		4	4	4
	Static Pressure	Pa	0-20 (default)	0-20 (default)	0-20 (default)
			20-120 (customized)	20-120 (customized)	20-120 (customized)
			Airflow rate	m³/h	53200
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	8.4x2+15.4	8.4+10+15.4	8.4+10+15.4
Pipe connections'	Liquid pipe	mm	ø19.1	ø19.1	ø19.1
	Gas pipe	mm	ø41.3	ø41.3	ø41.3
Sound Pressure Level'	dB(A)		67	67	68
Net Dimensions (WxHxD)	mm		(940x1760x825)x2 + (1340x1760x825)	(940x1760x825)x2 + (1340x1760x825)	(940x1760x825)x2 + (1340x1760x825)
Packed Dimensions (WxHxD)	mm		(1010x1945x890)x2 + (1410x1945x890)	(1010x1945x890)x2 + (1410x1945x890)	(1010x1945x890)x2 + (1410x1945x890)
Net Weight	kg		200x2+325	200+225+325	200+225+325
Gross Weight	kg		215x2+350	215+245+350	215+245+350
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

Note:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those 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 the Engineering Data Book 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.

GENERAL DATA - AIR-COOLED CONDENSING UNIT (R410A)

HP			68	70	72
Model Name			MVC-680-4A5	MVC-700-4A5	MVC-720-4A5
Combination			18HP+20HP+30HP	16HP+24HP+30HP	18HP+24HP+30HP
Power Supply			380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling'	Capacity	kW	191	197	202
		kBtu/h	651.4	671.9	688.9
	Power Input	kW	57.2	57.7	58.8
	EER		3.34	3.41	3.44
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
	Maximum Quantity		64	64	64
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Quantity		4	4	4
Fan	Type		DC	DC	DC
	Quantity		4	5	5
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow rate	m³/h	55000	59100	60000
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10x2+15.4	8.4+12.8+15.4	10+12.8+15.4
Pipe connections'	Liquid pipe	mm	ø22.2	ø22.2	ø22.2
	Gas pipe	mm	ø44.5	ø44.5	ø44.5
Sound Pressure Level'	dB(A)		68	68	68
Net Dimensions (WxHxD)	mm		(940x1760x825)x2 + (1340x1760x825)	(940x1760x825) + (1340x1760x825)x2	(940x1760x825) + (1340x1760x825)x2
Packed Dimensions (WxHxD)	mm		(1010x1945x890)x2 + (1410x1945x890)	(1010x1945x890) + (1410x1945x890)x2	(1010x1945x890) + (1410x1945x890)x2
Net Weight	kg		212+225+325	200+260+325	212+260+325
Gross Weight	kg		232+245+350	215+285+350	232+285+350
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55

HP			74	76	78
Model Name			MVC-740-4A5	MVC-760-4A5	MVC-780-4A5
Combination			20HP+24HP+30HP	16HP+30HP+30HP	18HP+30HP+30HP
Power Supply		V/N/Hz	380-415/3/50(60)	380-415/3/50(60)	380-415/3/50(60)
Cooling'	Capacity	kW	208	215	220
		kBtu/h	709.4	733.3	750.3
	Power Input	kW	62.8	65.1	66.2
	EER		3.31	3.3	3.32
Connected Indoor Unit		Total Capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity
		Maximum Quantity	64	64	64
Compressor			Scroll DC inverter	Scroll DC inverter	Scroll DC inverter
	Type		inverter	inverter	inverter
Fan	Quantity		4	5	5
	Type		DC	DC	DC
	Quantity		5	5	5
	Static Pressure	Pa	0-20 (default)	0-20 (default)	0-20 (default)
			20-120 (customized)	20-120 (customized)	20-120 (customized)
Airflow rate	m³/h	60000	59600	60500	
Refrigerant	Type		R410A	R410A	R410A
	Factory charge	kg	10+12.8+15.4	8.4+15.4x2	10+15.4x2
Pipe connections'	Liquid pipe	mm	ø22.2	ø22.2	ø22.2
	Gas pipe	mm	ø44.5	ø44.5	ø44.5
Sound Pressure Level'		dB(A)	69	68	68
Net Dimensions (WxHxD)			(940x1760x825)	(940x1760x825)	(940x1760x825)
		mm	+ (1340x1760x825)x2	+ (1340x1760x825)x2	+ (1340x1760x825)x2
Packed Dimensions (WxHxD)			(1010x1945x890)	(1010x1945x890)	(1010x1945x890)
		mm	+ (1410x1945x890)x2	+ (1410x1945x890)x2	+ (1410x1945x890)x2
Net Weight		kg	225+260+325	200+325x2	212+325x2
Gross Weight		kg	245+285+350	215+350x2	232+350x2
Ambient Temp. Operation Range (Cooling)		°C	-15 to 55	-15 to 55	-15 to 55

Note:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those 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 the Engineering Data Book 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.

GENERAL DATA - AIR-COOLED CONDENSING UNIT (R410A)

HP	80		82		84	
Model Name	MVC-800-4A5		MVC-820-4A5		MVC-840-4A5	
Combination		20HP+30HP+30HP	22HP+30HP+30HP		24HP+30HP+30HP	
Power Supply	V/N/Hz		380-415/3/50(60)		380-415/3/50(60)	
Cooling'	Capacity	kW	226	231.5	237	
		kBtu/h	770.8	789.5	808.3	
	Power Input	kW	70.2	70.1	71.8	
	EER		3.22	3.3	3.3	
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	
	Maximum Quantity		64	64	64	
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter	
	Quantity		5	5	5	
Fan	Type		DC	DC	DC	
	Quantity		5	6	6	
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	
	Airflow rate	m³/h	60500	65500	65500	
Refrigerant	Type		R410A	R410A	R410A	
	Factory charge	kg	10+15.4x2	12.8+15.4x2	12.8+15.4x2	
Pipe connections'	Liquid pipe	mm	ø22.2	ø22.2	ø25.4	
	Gas pipe	mm	ø44.5	ø44.5	ø50.8	
Sound Pressure Level'	dB(A)		69	69	69	
Net Dimensions (WxHxD)	mm		(940x1760x825) + (1340x1760x825)x2	(1340x1760x825)x3	(1340x1760x825)x3	
Packed Dimensions (WxHxD)	mm		(1010x1945x890) + (1410x1945x890)x2	(1410x1945x890)x3	(1410x1945x890)x3	
Net Weight	kg		225+325x2	260+325x2	260+325x2	
Gross Weight	kg		245+350x2	285+350x2	285+350x2	
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55	

HP	86		88		90	
Model Name	MVC-860-4A5		MVC-880-4A5		MVC-900-4A5	
Combination		26HP+30HP+30HP	28HP+30HP+30HP		30HP+30HP+30HP	
Power Supply	V/N/Hz		380-415/3/50(60)		380-415/3/50(60)	
Cooling'	Capacity	kW	243	248.5	255	
		kBtu/h	828.7	847.5	869.7	
	Power Input	kW	72.2	75.1	79.2	
	EER		3.37	3.31	3.22	
Connected Indoor Unit	Total Capacity		50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	50-130% of outdoor unit capacity	
	Maximum Quantity		64	64	64	
Compressor	Type		Scroll DC inverter	Scroll DC inverter	Scroll DC inverter	
	Quantity		6	6	6	
Fan	Type		DC	DC	DC	
	Quantity		6	6	6	
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	
	Airflow rate	m³/h	66000	66000	66000	
Refrigerant	Type		R410A	R410A	R410A	
	Factory charge	kg	15.4x3	15.4x3	15.4x3	
Pipe connections'	Liquid pipe	mm	ø25.4	ø25.4	ø25.4	
	Gas pipe	mm	ø50.8	ø50.8	ø50.8	
Sound Pressure Level'	dB(A)		69	69	69	
Net Dimensions (WxHxD)	mm		(1340x1760x825)x3	(1340x1760x825)x3	(1340x1760x825)x3	
Packed Dimensions (WxHxD)	mm		(1410x1945x890)x3	(1410x1945x890)x3	(1410x1945x890)x3	
Net Weight	kg		325x3	325x3	325x3	
Gross Weight	kg		350x3	350x3	350x3	
Ambient Temp. Operation Range (Cooling)	°C		-15 to 55	-15 to 55	-15 to 55	

Note:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those 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 the Engineering Data Book 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.

GENERAL DATA - HIGH EFFICIENCY CONDENSING UNIT (R410A)

Model	MVC-80-4E5		MVC-100-4E5		MVC-120-4E5	
HP	8		10		12	
Power Supply	V/N/Hz		380-415/3/50(60)		380-415/3/50(60)	
Cooling ¹	Capacity	kW	25.19	27.97	33.49	
		kBtu/h	85.9	95.5	114.2	
	Power Input	kW	4.28	4.85	6.19	
	COP		5.89	5.77	5.41	
	IEER		5.71	5.72	5.76	
Connected Indoor Unit	NEA TICK		4√	4√	4√	
	Total Capacity		90-130% of outdoor unit capacity	90-130% of outdoor unit capacity	90-130% of outdoor unit capacity	
	Maximum Quantity		13	16	19	
	Type		EVI-DC scroll compressor	EVI-DC scroll compressor	EVI-DC scroll compressor	
	Quantity		1	1	1	
Compressor	Oil Type		FV68H	FV68H	FV68H	
	Start-up method		Soft start	Soft start	Soft start	
	Type		Propeller	Propeller	Propeller	
	Motor Type		DC	DC	DC	
	Quantity		2	2	2	
Fan	Motor Output		0.56+0.56	0.56+0.56	0.56+0.56	
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)	
	Airflow Rate		15800	15800	15800	
	Drive Type		Direct	Direct	Direct	
Refrigerant	Type		R410A	R410A	R410A	
	Factory Charge	kg	12.8	12.8	12.8	
Pipe Connections ²	Liquid Pipe	mm	ø12.7	ø12.7	ø15.9	
	Gas Pipe	mm	ø25.4	ø25.4	ø28.6	
Sound Pressure Level ³	dB(A)		57	58	60	
Net Dimensions (WxHxD)	mm		1340x1760x825	1340x1760x825	1340x1760x825	
Packed Dimensions (WxHxD)	mm		1410x1945x890	1410x1945x890	1410x1945x890	
Net Weight	kg		260	260	260	
Gross Weight	kg		285	285	285	
Ambient Temp. Operation Range	Cooling	°C	-15 to 55	-15 to 55	-15 to 55	

Model	MVC-140-4E5		MVC-160-4E5	
HP	14		16	
Power Supply	V/N/Hz		380-415/3/50(60)	
Cooling ¹	Capacity	kW	40.02	45
		kBtu/h	136.4	153.5
	Power Input	kW	8.13	10.08
	COP		4.92	4.46
	IEER		5.36	5.32
Connected Indoor Unit	NEA TICK		3√	3√
	Total Capacity		90-130% of outdoor unit capacity	90-130% of outdoor unit capacity
	Maximum Quantity		23	26
	Type		EVI-DC scroll compressor	EVI-DC scroll compressor
	Quantity		1	1
Compressor	Oil Type		FV68H	FV68H
	Start-up method		Soft start	Soft start
	Type		Propeller	Propeller
	Motor Type		DC	DC
	Quantity		2	2
Fan	Motor Output		0.56+0.56	0.56+0.56
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow Rate		18000	18000
	Drive Type		Direct	Direct
Refrigerant	Type		R410A	R410A
	Factory Charge	kg	12.8	12.8
Pipe Connections ²	Liquid Pipe	mm	ø15.9	ø15.9
	Gas Pipe	mm	ø28.6	ø28.6
Sound Pressure Level ³	dB(A)		60	61
Net Dimensions (WxHxD)	mm		1340x1760x825	1340x1760x825
Packed Dimensions (WxHxD)	mm		1410x1945x890	1410x1945x890
Net Weight	kg		260	260
Gross Weight	kg		285	285
Ambient Temp. Operation Range	Cooling	°C	-15 to 55	-15 to 55

GENERAL DATA - HIGH EFFICIENCY CONDENSING UNIT (R410A)

Model			MVC-180-4E5	MVC-200-4E5
HP			18	20
Power Supply	V/N/Hz		380-415/3/50(60)	
Cooling ¹	Capacity	kW	49.98	56.1
		kBtu/h	170.5	191
	Power Input	kW	11.56	12.43
	COP		4.32	4.51
	IEER		5.29	5.25
	NEA TICK		3√	3√
Connected Indoor Unit	Total Capacity		90-130% of outdoor unit capacity	90-130% of outdoor unit capacity
	Maximum Quantity		29	33
Compressor	Type		EVI-DC scroll compressor	EVI-DC scroll compressor
	Quantity		1	1
	Oil Type		FV68H	FV68H
	Start-up method		Soft start	Soft start
Fan	Type		Propeller	Propeller
	Motor Type		DC	DC
	Quantity		2	2
	Motor Output	kW	0.56+0.56	0.56+0.56
	Static Pressure	Pa	0-20 (default) 20-120 (customized)	0-20 (default) 20-120 (customized)
	Airflow Rate	m³/h	19000	19000
	Drive Type		Direct	Direct
Refrigerant	Type		R410A	R410A
	Factory Charge	kg	12.8	15.4
Pipe Connections ²	Liquid Pipe	mm	ø15.9	ø15.9
	Gas Pipe	mm	ø28.6	ø28.6
Sound Pressure Level ³	dB(A)		62	63
Net Dimensions (WxHxD)	mm		1340x1760x825	1340x1760x825
Packed Dimensions (WxHxD)	mm		1410x1945x890	1410x1945x890
Net Weight	kg		260	325
Gross Weight	kg		285	350
Ambient Temp. Operation Range	Cooling	°C	-15 to 55	-15 to 55

Note:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those of the unit's stop valves.
- 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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