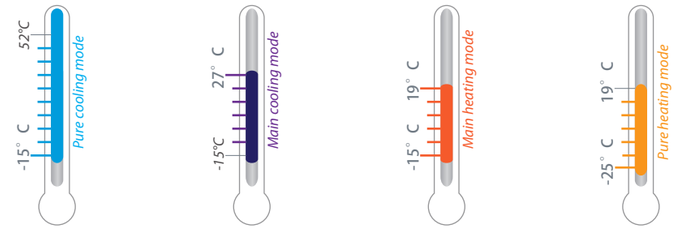
V6R
Heat Recovery VRF

Offers simultaneous cooling and heating operation in one system.



Wide Operation Range

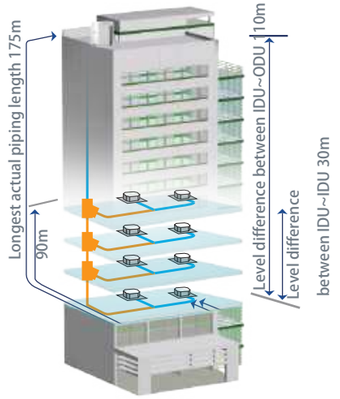
The V6R VRF system has a wide operation range in cooling mode, heating mode and simultaneous cooling and heating mode.



Long Piping Capability

Piping length	Capability (m)
Total piping length	1000
Longest piping length-actual (equivalent)	175 (200)
Longest piping length after first branch	40/90*
Largest level difference between IDUs and ODU-ODU up (down)	110 (110)
Largest level difference between IDUs	30

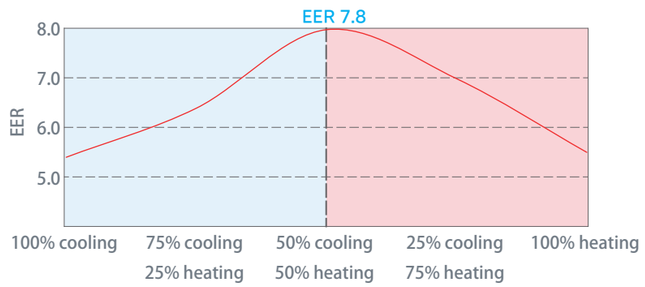
*The longest length after first branch is 40m as standard but can be extended to up to 90m under certain conditions. Please contact your local dealer for further information.



Heat Recovery, Maximum Energy Saving

V6R Heat Recovery system can perform both cooling and heating operation simultaneously in one system. Heat recovery is achieved by diverting exhaust heat from indoor units in cooling mode to areas requiring heating. As a result of this, energy efficiency is maximized and electricity costs are reduced. The part load efficiencies are high as well (up to 7.8 in 8 HP category).

EER with simultaneous operation



EER in simultaneous cooling and heating mode are based on the following conditions: Outdoor temperature 7°CDB/6°CWB, indoor temperature 27°CDB/19°CWB for cooling, indoor temperature 20°CDB for heating.

Midea HVAC & Energy Australia

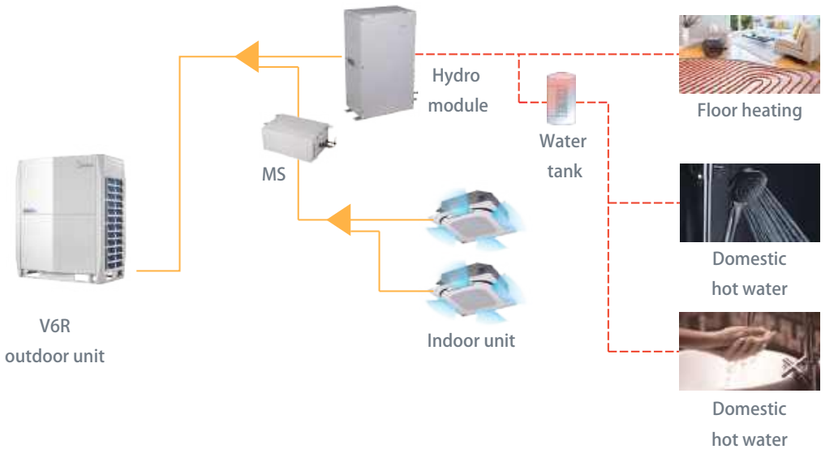
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Quality Assurance ISO 9001
Environmental Management ISO 14001
Occupational Health and Safety Management ISO 45001

Hot Water Supply

The V6R system can produce hot water (25° C to 80° C) when providing room air conditioning. The hot water can be used for space heating and domestic hot water, improving room comfort.



Continuous Heating During Defrost Mode

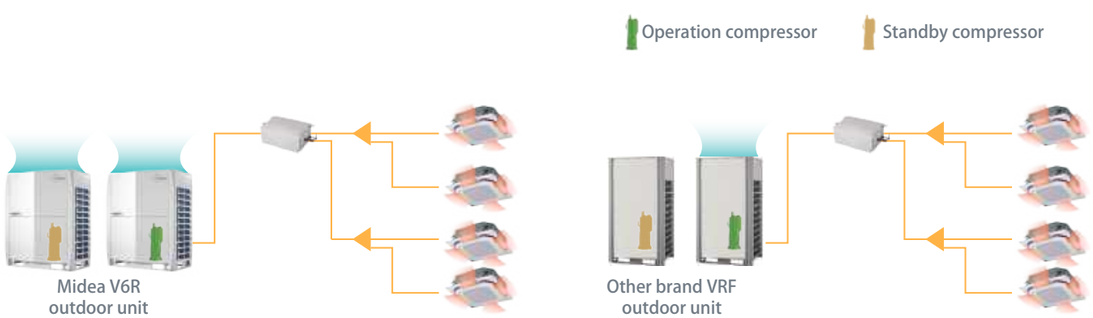
Normally, it is necessary to stop the heating operation during defrosting. However, the continuous heating operation method makes it possible to perform defrosting while the heating operation continues. With the combination model, units perform defrosting alternately. While one unit is performing defrosting, the other continues heating.



During normal heating operation | During continuous heating operation | During continuous heating operation

Independent Control of Heat Exchanger and Compressor to Improve Energy Efficiency

In cooling or heating mode, for a multi-unit system, the outdoor heat exchanger and compressor are independently controlled to improve energy efficiency, which means even the compressor of the outdoor unit does not operate, the heat exchanger of this outdoor unit can be used for heat exchange. This function can maximum use the outdoor heat exchanger to improve heat exchange efficiency.

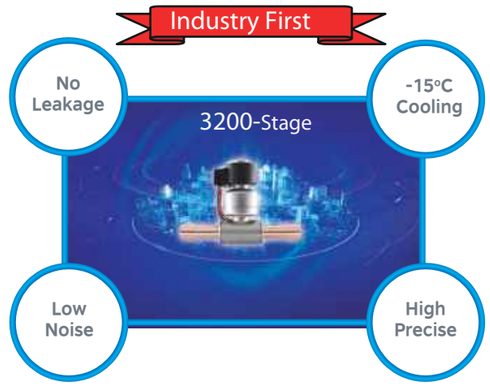


Intelligent MS Box

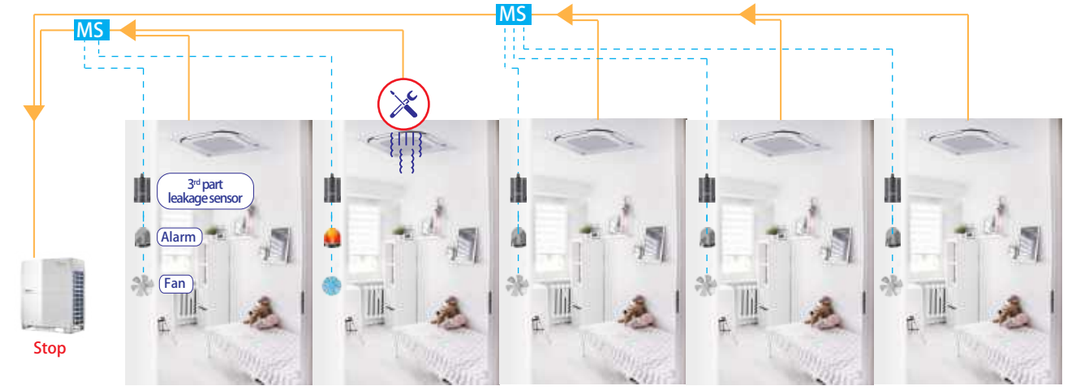
The V6R Heat Recovery system can perform simultaneous heating and cooling operation through the intelligent MS-box. It switches operation mode according to user requirement while it increases efficiency with simultaneous operation.

Single Port

- Compact and light to install
- No drain piping needed
- Connect up to 8 indoor units, capacity up to 32kW
- Double direction connection for refrigerant pipe to improve installation flexibility
- Electric ball valve control precision is up to 3200-stage
  - Completely close the valve with almost no leakage
  - Can be opened and closed in stages with very low noise
  - Can achieve cooling at ambient temperatures as low as -15oC
  - High precision refrigerant flow control
  - Low noise operation



- Real-time refrigerant leakage detection, safe and reliable operation.
  - Real-time refrigerant leakage detection
  - Provide dry contact to 3rd party for alarm and exhaust fan. When refrigerant leakage occurs, the alarm light will be on and the exhaust fan will automatically run to timely reduce the concentration of refrigerant in the room



Multiple Ports: 4-6-8-10-12

- Compact and light to install
- Low noise operation
- Up to 5 indoor units can be connected to one port
- Up to 47 indoor units can be connected to one MS12 box
- Up to 16 kW capacity available per port
- Connect up to 280 index unit (28kW) by combining 2 ports



Specifications
V6R Heat Recovery VRF

HP			8	10	12	14	16	18
Model name			MV6-R252WV2RN1	MV6-R280WV2RN1	MV6-R335WV2RN1	MV6-R400WV2RN1	MV6-R450WV2RN1	MV6-R500WV2RN1
Power supply		V/N/Hz	380-415/3/50					
Cooling Capacity[1]		kW	22.40	28.00	33.50	40.00	45.00	50.00
Heating Capacity (Rated)[2]		kW	22.40	28.00	33.50	40.00	45.00	50.00
Heating Capacity (Max)[2]		kW	25.0	31.50	37.50	45.00	50.00	56.00
SEER			7.26	6.60	6.80	6.65	6.44	6.22
ηs,c		%	287.4	261.0	269.0	263.2	254.6	245.8
SCOP			4.29	4.39	4.59	4.27	4.33	4.35
ηs,h		%	168.6	172.6	180.6	167.8	170.2	171.0
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity					
	Maximum quantity		64					
Compressor	Type		DC inverter					
	Quantity		1					
Fan	Type		Propeller					
	Motor type		DC					
	Quantity		1	1	1		2	
	Static pressure	Pa	0,20,40,60,80(Selectable)					
	Air flow rate	m³/h	9000	9500	10000	14000	14900	15800
Refrigerant	Type		R410A					
	Factory charge	kg	8	8	8	10	10	10
Pipe connections[3]	Liquid pipe	mm	Φ12.7	Φ12.7	Φ12.7	Φ15.9	Φ15.9	Φ15.9
	Low pressure gas pipe	mm	Φ25.4	Φ25.4	Φ25.4	Φ28.6	Φ28.6	Φ28.6
	High pressure gas pipe	mm	Φ19.1	Φ19.1	Φ19.1	Φ22.2	Φ22.2	Φ22.2
Sound pressure level[4]		dB(A)	58	61	62	63	64	65
Sound power level[4]		dB(A)	78	82	83	84	88	88
Net dimensions (W×H×D)		mm	990×1635×790	990×1635×790	990×1635×790	1340×1635×825	1340×1635×825	1340×1635×825
Packed dimensions (W×H×D)		mm	1090×1805×860	1090×1805×860	1090×1805×860	1405×1805×910	1405×1805×910	1405×1805×910
Net weight		kg	232	232	232	300	300	300
Gross weight		kg	248	248	248	325	325	325
Ambient temp. operation range	Cooling	°C(DB)	-15 ~ 52					
	Heating	°C(WB)	-25 ~ 19					
	Domestic hot water	°C(DB)	-20 ~ 43					

HP			20	22	24
Model name			MV6-R560WV2RN1	MV6-R615WV2RN1	MV6-R680WV2RN1
Combination type			10HP+10HP	10HP+12HP	10HP+14HP
Power supply		V/N/Hz	380-415/3/50		
Cooling Capacity[1]		kW	56.00	61.50	68.00
Heating Capacity (Rated)[2]		kW	56.00	61.50	68.00
Heating Capacity (Max)[2]		kW	63.00	69.00	76.50
SEER			6.57	6.68	6.60
ηs,c		%	259.8	264.2	261.0
SCOP			4.39	4.49	4.32
ηs,h		%	172.6	176.6	169.8
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity		
	Maximum quantity		64		
Compressor	Type		DC inverter		
	Quantity		2		
Fan	Type		Propeller		
	Motor type		DC		
	Quantity		2	2	3
	Static pressure	Pa	0,20,40,60,80(Selectable)		
	Air flow rate	m³/h	19000	19500	23500
Refrigerant	Type		R410A		
	Factory charge	kg	16	16	18
Pipe connections[3]	Liquid pipe	mm	Φ15.9	Φ15.9	Φ15.9
	Low pressure gas pipe	mm	Φ28.6	Φ28.6	Φ34.9
	High pressure gas pipe	mm	Φ28.6	Φ28.6	Φ28.6
Sound pressure level[4]		dB(A)	61	62	63
Sound power level[4]		dB(A)	84	84	88
Net dimensions (W×H×D)		mm	(990×1635×790)×2	(990×1635×790)×2	990×1635×790+1340×1635×825
Packed dimensions (W×H×D)		mm	(1090×1805×860)×2	(1090×1805×860)×2	1090×1805×860+1405×1805×910
Net weight		kg	232×2	232×2	232+300
Gross weight		kg	248×2	248×2	248+325
Ambient temp. operation range	Cooling	°C(DB)	-15 ~ 52		
	Heating	°C(WB)	-25 ~ 19		
	Domestic hot water	°C(DB)	-20 ~ 43		

Notes:
1.Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference;connect to Duct type indoor unit.
2.Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference;connect to Duct type indoor unit.
3. For single units, diameters given are those of the unit's stop valves. For combined units, 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.
4. 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.

Specifications
V6R Heat Recovery VRF

HP			26	28	30
Model name			MV6-R735WV2RN1	MV6-R785WV2RN1	MV6-R835WV2RN1
Combination type			12HP+14HP	12HP+16HP	12HP+18HP
Power supply		V/N/Hz	380-415/3/50		
Cooling Capacity[1]		kW	73.50	78.50	83.50
Heating Capacity (Rated)[2]		kW	73.50	78.50	83.50
Heating Capacity (Max)[2]		kW	82.50	87.50	93.50
SEER			6.69	6.58	6.43
ηs,c		%	264.6	260.2	254.2
SCOP			4.40	4.43	4.44
ηs,h		%	173.0	174.2	174.6
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity		
	Maximum quantity		64		
Compressor	Type		DC inverter		
	Quantity		2		
Fan	Type		Propeller		
	Motor type		DC		
	Quantity		3		
	Static pressure	Pa	0,20,40,60,80(Selectable)		
	Air flow rate	m³/h	24000	24900	25800
Refrigerant	Type		R410A		
	Factory charge	kg	18		
Pipe connections[3]	Liquid pipe	mm	Φ19.1		
	Low pressure gas pipe	mm	Φ34.9		
	High pressure gas pipe	mm	Φ28.6		
Sound pressure level[4]		dB(A)	64	65	66
Sound power level[4]		dB(A)	89	89	89
Net dimensions (W×H×D)		mm	990×1635×790+1340×1635×825		
Packed dimensions (W×H×D)		mm	1090×1805×860+1405×1805×910		
Net weight		kg	232+300		
Gross weight		kg	248+325		
Ambient temp. operation range	Cooling	°C (DB)	-15 ~ 52		
	Heating	°C (WB)	-25 ~ 19		
	Domestic hot water	°C (DB)	-20 ~ 43		

HP			32	34	36
Model name			MV6-R900WV2RN1	MV6-R950WV2RN1	MV6-R1000WV2RN1
Combination type			16HP+16HP	16HP+18HP	18HP+18HP
Power supply		V/N/Hz	380-415/3/50		
Cooling Capacity[1]		kW	90.00	95.00	100.00
Heating Capacity (Rated)[2]		kW	90.00	95.00	100.00
Heating Capacity (Max)[2]		kW	100.00	106.00	112.00
SEER			6.42	6.30	6.20
ηs,c		%	253.8	249.0	245.0
SCOP			4.34	4.33	4.34
ηs,h		%	170.6	170.2	170.6
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity		
	Maximum quantity		64		
Compressor	Type		DC inverter		
	Quantity		2		
Fan	Type		Propeller		
	Motor type		DC		
	Quantity		4		
	Static pressure	Pa	0,20,40,60,80(Selectable)		
	Air flow rate	m³/h	29800	30700	31600
Refrigerant	Type		R410A		
	Factory charge	kg	20		
Pipe connections[3]	Liquid pipe	mm	Φ19.1		
	Low pressure gas pipe	mm	Φ34.9		
	High pressure gas pipe	mm	Φ28.6		
Sound pressure level[4]		dB(A)	67	68	68
Sound power level[4]		dB(A)	91	91	91
Net dimensions (W×H×D)		mm	(1340×1635×825)×2		
Packed dimensions (W×H×D)		mm	(1405×1805×910)×2		
Net weight		kg	300×2		
Gross weight		kg	325×2		
Ambient temp. operation range	Cooling	°C (DB)	-15 ~ 52		
	Heating	°C (WB)	-25 ~ 19		
	Domestic hot water	°C (DB)	-20 ~ 43		

Notes:
1.Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference;connect to Duct type indoor unit.
2.Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference;connect to Duct type indoor unit.
3. 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.
4. 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.

Specifications
V6R Heat Recovery VRF

HP / Model name			38 MV6-R1070WV2RN1	40 MV6-R1120WV2RN1	42 MV6-R1185WV2RN1	44 MV6-R1235WV2RN1
Combination type			12HP+12HP+14HP	12HP+12HP+16HP	12HP+14HP+16HP	12HP+16HP+16HP
Power supply		V/N/Hz	380-415/3/50			
Cooling Capacity[1]		kW	107.00	112.00	118.50	123.50
Heating Capacity (Rated)[2]		kW	107.00	112.00	118.50	123.50
Heating Capacity (Max)[2]		kW	120.00	125.00	132.50	137.50
SEER			6.70	6.65	6.57	6.52
ηs,c		%	265.0	263.0	259.8	257.8
SCOP			4.45	4.47	4.37	4.39
ηs,h		%	175.0	175.8	171.8	172.6
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity			
	Maximum quantity		64			
Compressor	Type		DC inverter			
	Quantity		3			
Fan	Type		Propeller			
	Motor type		DC			
	Quantity		4	4	5	5
	Static pressure	Pa	0,20,40,60,80(Selectable)			
	Air flow rate	m³/h	34000	34900	38900	39800
Refrigerant	Type		R410A			
	Factory charge	kg	26	26	28	28
Pipe connections[3]	Liquid pipe	mm	Φ19.1			
	Low pressure gas pipe	mm	Φ41.3			
	High pressure gas pipe	mm	Φ34.9			
Sound pressure level[4]		dB(A)	65	67	67	68
Sound power level[4]		dB(A)	89	89	89	91
Net dimensions (W×H×D)		mm	(990×1635×790)×2+1340×1635×825		990×1635×790+(1340×1635×825)×2	
Packed dimensions (W×H×D)		mm	(1090×1805×860)×2+1405×1805×910		1090×1805×860+(1405×1805×910)×2	
Net weight		kg	232×2+300	232×2+300	232+300×2	232+300×2
Gross weight		kg	248×2+325	248×2+325	248+325×2	248+325×2
Ambient temp. operation range	Cooling	℃ (DB)	-15 ~ 52			
	Heating	℃ (WB)	-25 ~ 19			
	Domestic hot water	℃ (DB)	-20 ~ 43			

HP / Model name			46 MV6-R1300WV2RN1	48 MV6-R1350WV2RN1	50 MV6-R1400WV2RN1	52 MV6-R1450WV2RN1	54 MV6-R1500WV2RN1
Combination type			14HP+16HP+16HP	16HP+16HP+16HP	16HP+16HP+18HP	16HP+18HP+18HP	18HP+18HP+18HP
Power supply		V/N/Hz	380-415/3/50				
Cooling Capacity[1]		kW	130.00	135.00	140.00	145.00	150.00
Heating Capacity (Rated)[2]		kW	130.00	135.00	140.00	145.00	150.00
Heating Capacity (Max)[2]		kW	145.00	150.00	156.00	162.00	168.00
SEER			6.47	6.42	6.34	6.27	6.20
ηs,c		%	255.8	253.8	250.6	247.8	245.0
SCOP			4.31	4.33	4.32	4.35	4.34
ηs,h		%	169.4	170.2	169.8	171.0	170.6
Connected indoor unit	Total capacity		50-200% of outdoor unit capacity				
	Maximum quantity		64				
Compressor	Type		DC inverter				
	Quantity		3				
Fan	Type		Propeller				
	Motor type		DC				
	Quantity		6				
	Static pressure	Pa	0,20,40,60,80(Selectable)				
	Air flow rate	m³/h	43800	44700	45600	46500	47400
Refrigerant	Type		R410A				
	Factory charge	kg	30				
Pipe connections[3]	Liquid pipe	mm	Φ19.1				
	Low pressure gas pipe	mm	Φ41.3				
	High pressure gas pipe	mm	Φ34.9				
Sound pressure level[4]		dB(A)	68	69	69	69	70
Sound power level[4]		dB(A)	91	93	93	93	93
Net dimensions (W×H×D)		mm	(1340×1635×825)×3				
Packed dimensions (W×H×D)		mm	(1405×1805×910)×3				
Net weight		kg	300×3				
Gross weight		kg	325×3				
Ambient temp. operation range	Cooling	℃ (DB)	-15 ~ 52				
	Heating	℃ (WB)	-25 ~ 19				
	Domestic hot water	℃ (DB)	-20 ~ 43				

Notes:
1.Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference;connect to Duct type indoor unit.
2.Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference;connect to Duct type indoor unit.
3. 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.
4. 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.

Specifications
MS Box



Model name			MS01/N1-D	MS04/N1-D	MS06/N1-D	MS08/N1-D	MS10/N1-D	MS12/N1-D
Power supply			220-240V~50Hz					
Max. number of indoor unit groups			1	4	6	8	10	12
Max. number of indoor units per group			8	5	5	5	5	5
Max. number of downstream indoor units			8	20	30	40	47	47
Max. capacity of each group of indoor units		kW	32	16	16	16	16	16
Max. total capacity of all downstream indoor units		kW	32	49	63	85	85	85
Pipe connections to ODU[1]	Liquid pipe	mm	Φ9.53/Φ12.7	Φ9.53/Φ12.7/Φ15.9/Φ19.1	Φ9.53/Φ12.7/Φ15.9/Φ19.1	Φ12.7/Φ15.9/Φ19.1/Φ22.2	Φ12.7/Φ15.9/Φ19.1/Φ22.2	Φ12.7/Φ15.9/Φ19.1/Φ22.2
	Low pressure gas pipe	mm	Φ15.9/Φ19.1/Φ22.2	Φ19.1/Φ22.2/Φ28.6	Φ19.1/Φ22.2/Φ28.6	Φ22.2/Φ28.6/Φ34.9	Φ22.2/Φ28.6/Φ34.9	Φ22.2/Φ28.6/Φ34.9
	High pressure gas pipe	mm	Φ12.7/Φ15.9/Φ19.1	Φ15.9/Φ19.1/Φ22.2/Φ28.6	Φ15.9/Φ19.1/Φ22.2/Φ28.6	Φ19.1/Φ22.2/Φ28.6	Φ19.1/Φ22.2/Φ28.6	Φ19.1/Φ22.2/Φ28.6
Pipe connections to IDU[1]	Liquid pipe	mm	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ9.53
	Gas pipe	mm	Φ12.7/Φ15.9	Φ12.7/Φ15.9	Φ12.7/Φ15.9	Φ12.7/Φ15.9	Φ12.7/Φ15.9	Φ12.7/Φ15.9
Sound pressure level[1]		dB(A)	40	44	45	47	47	47
Sound power level[1]		dB(A)	60	63	65	65	65	65
Net dimensions (W×H×D)		mm	440×195×296	668×250×574	668×250×574	974×250×574	974×250×574	974×250×574
Packed dimensions (W×H×D)		mm	740×275×405	1020×390×850	1020×390×850	1320×390×850	1320×390×850	1320×390×850
Net weight		kg	10.5	33	36	48	51	54
Gross weight		kg	14	58	61	79	82	85

Note:
1 There is more than one size for pipe diameter in the above table because MS provides multiple sizes for different installation conditions.

Specifications
High Temperature Hydro Module



Model			SMK-D140HN1-3
Power supply			220-240V~50Hz
Heating Capacity[1]		kW	14
Operating temperature range	Heating	℃	-20~30
	Domestic hot water	℃	-20~43
Water temperature		℃	25~80
Water flow rate	Nominal (Min.-Max.)	m³/h	2.4 (1.2-2.9)
Allowable water pressure		Mpa	0.1-0.3
Refrigerant	Type		R134a
	Factory charge	kg	1.2
Sound pressure level		dB(A)	43
Net dimensions (W×H×D)		mm	450x795x300
Packed dimensions (W×H×D)		mm	735×820×380
Net / Gross weight		kg	63/71
Refrigerant pipe	Connection type		Brazing
	Liquid pipe diameter	mm	Φ9.53
	Gas pipe diameter	mm	Φ12.7
Water pipe	Connection type		External thread
	Inlet pipe diameter	mm	Φ25.4
	Outlet pipe diameter	mm	Φ25.4
Unit installation ambient temperature range		℃	0~40
Unit installation place			Indoor only

Note:
Nominal heating capacity is based on the following conditions: ambient temperature 7°C DB/6°C WB; water inlet/outlet temperature 40°C DB/45°C.