SAMSUNG

VRF

Digital Variable Multi (DVM)

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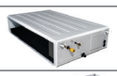
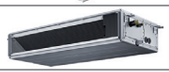
Line-up Indoor

Model	Image	Capacity (kW)																		
		1,5	1,7	2,2	2,8	3,2	3,6	4,5	5,6	6	7,1	8,2	9	11,2	12,8	14	16	18	20	22	28
Wind-Free™ 1-Way Cassette		●		●	●		●	●	●		●										
1-Way Cassette			●	●	●		●		●		●										
2-Way Cassette									●		●										
360 Cassette								●	●		●		●	●	●	●					
Wind-Free™ 4-Way Cassette								●	●		●		●	●	●	●					
4-Way Cassette								●	●		●		●	●	●	●					
Wind-Free™ Mini 4-Way Cassette (600x600)		●		●	●		●	●	●	●											
Mini 4-Way Cassette (600x600)		●		●	●		●	●	●	●											
LSP Slim Duct			●	●	●		●	●	●		●		●	●	●	●					
MSP Duct S							●	●	●		●		●	●	●	●					
MSP Duct				●	●		●	●	●		●		●	●							
HSP Duct						●	●	●			●		●								
OAP Duct																●				●	●
Big Duct																				●	●
Ceiling									●		●			●		●					
Console				●	●		●	●	●												
Floor-Standing (Concealed)							●		●		●										
Boracay Wall-Mounted		●		●	●		●	●	●		●										
Boracay Wall-Mounted (with EEV)		●		●	●		●	●	●		●										
AR5000 Wall-Mounted		●		●	●		●	●	●		●	●									
AR5000 Wall-Mounted (with EEV)		●		●	●		●	●	●		●	●									
MAX Wall-Mounted													●								
Packaged Floor-Standing																●					●
Hydro Unit HE																					
Hydro Unit HT																					
ERV Plus							●				●										

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Model	Image	Capacity (HP)									
		8	10	12	14	16	18	20	22	24	26
DVM S High EER Heat Pump (2-Pipe)		●	●	●	●	●	●	●	●	●	●
DVM S Standard Heat Pump (2-Pipe)		●	●	●	●	●	●	●	●	●	●
DVM S High EER Heat Recovery (3-Pipe)		●	●	●	●	●	●	●	●	●	●

Model	Image	Capacity (HP)						
		4	5	6	8	10	12	14
DVM S Eco Heat Pump		●	●	●	●	●	●	●
DVM S Eco Heat Recovery (With Heat Recovery Changer Kit)		●	●	●				

Model	Image	Capacity (HP)				
		8	10	12	20	30
DVM S Water		●	●	●	●	●

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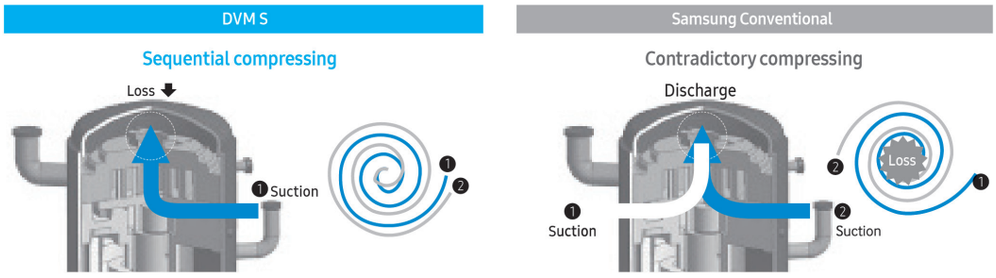
Technology

Asymmetric Scroll Design

Applying fluid dynamic design, DVM S minimises compression loss during the compression of refrigerant for maximum performance.

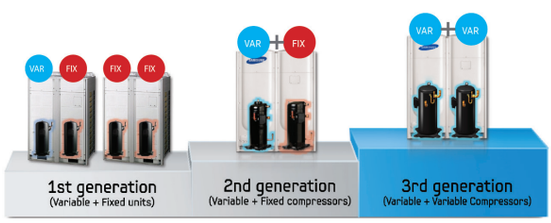


* No friction loss in the compressor, thanks to sequential suction and discharge.

* Suction from two different sides and discharge through one can cause collision of refrigerant gas which results in friction loss in the compressor.

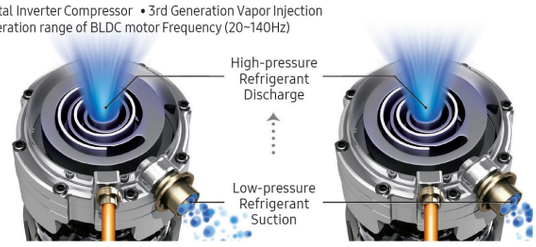
Dual Smart Inverter (DSI) System

The 3rd generation innovative system, Dual Smart System, adopts a dual inverter compressor system that improves refrigerant flow and the motor's operating performance. Both compressors operate simultaneously, provide balanced oil distribution for quick cooling and heating, and improve energy efficiency. The upgraded vapour injection system increases refrigerant flow by 20% compared to Samsung conventional products.



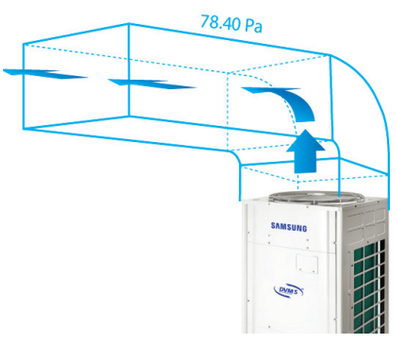
DDI System

• Dual Digital Inverter Compressor • 3rd Generation Vapor Injection
• Wider operation range of BLDC motor Frequency (20~140Hz)



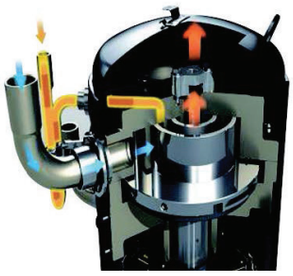
High External Static Pressure

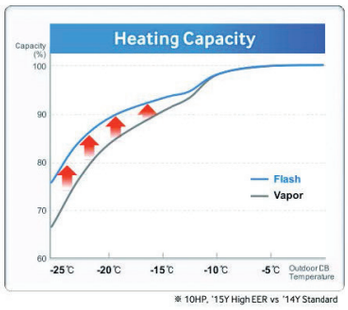
To properly deal with unexpected and varying installation conditions, DVM S is designed to manage high external static pressures up to 78pa.



Improved Flash Injection

Featuring advanced refrigerant control technology, Samsung's flash injection extends heating operation range at -25°C by increasing ref. flow by 32%. And at even lower temperatures, it continues to perform, delivering reliable comfort in frigid conditions.

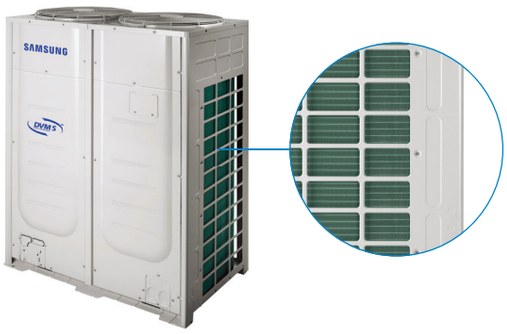


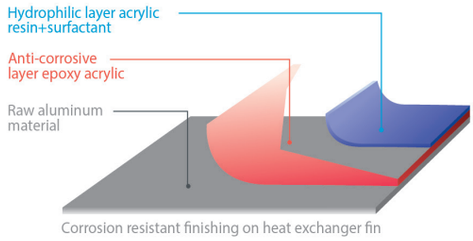


※ 10HP, '15Y High EER vs '14Y Standard

Corrosion and Frost Resistance

DVM S includes a hydrophilic coating that facilitates efficient heat exchange and delays the onset of frost formation to provide consistent heating performance. An anti-corrosive coating also helps the units to resist corrosion from the elements.

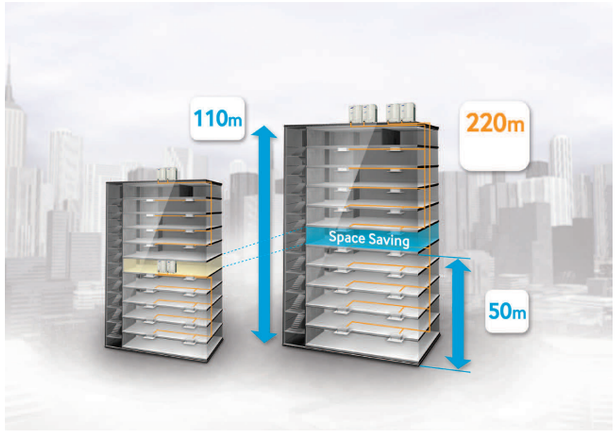




Corrosion resistant finishing on heat exchanger fin

Flexible Installation with Extended Pipe Length and Elevation

DVM S provides extended piping length of up to 220m (721.79 ft.) and installation height of up to 110m (360.89 ft.), offering businesses more installation options. The piping distance is far between outdoor and indoor units, so individual indoor units perform capacity connection control and automatic refrigerant equalization for more balanced performance between units.



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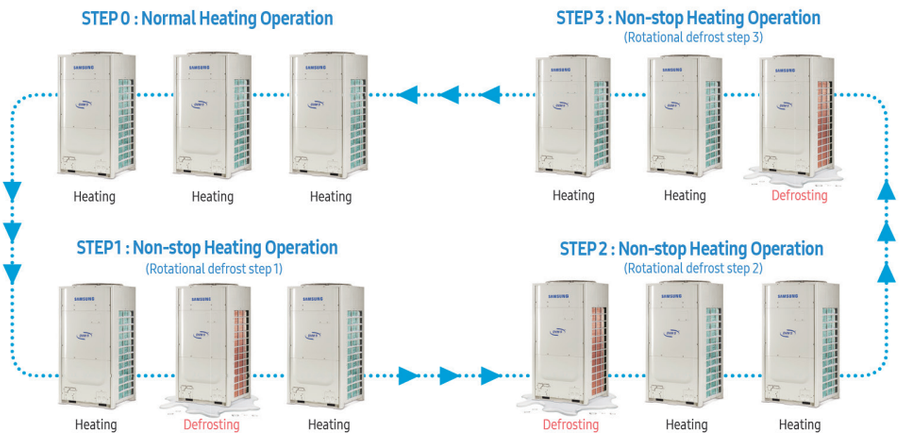
Technology

DVM S HR (Heat Recovery)

The DVM S HR (Heat Recovery) model delivers continuous heating performance using innovative rotational defrost for reliable warmth and comfort. In addition, it supports agile operation through simultaneous cooling and heating.

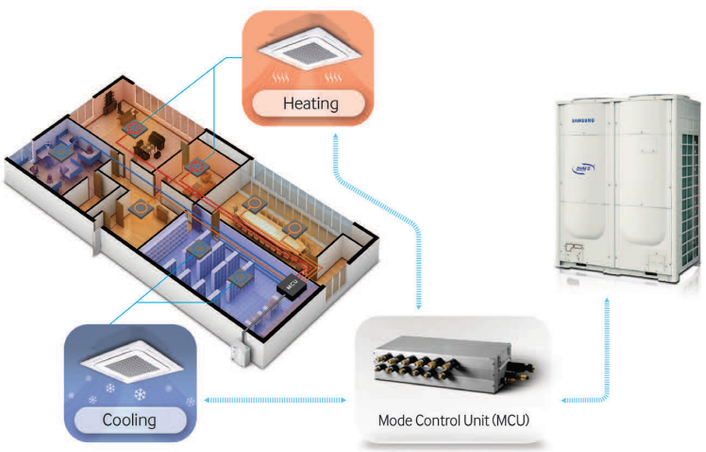
Simultaneous Cooling and Heating

Single outdoor units can operate all indoor units in both cooling and heating mode. They can also simultaneously operate in cooling and heating mode, when necessary, providing more operational freedom.



Fine-tuned Control

DVM S HR uses a Mode Control Unit (MCU) kit that is less than 32 percent the size of competitors' products. The MCU has an internal on/off valve that enables fine-tuned control via an Electronic Expansion Valve (EEV) and sub-cooler. Improved performance and reduced noise create a pleasant temperature controlled environment.



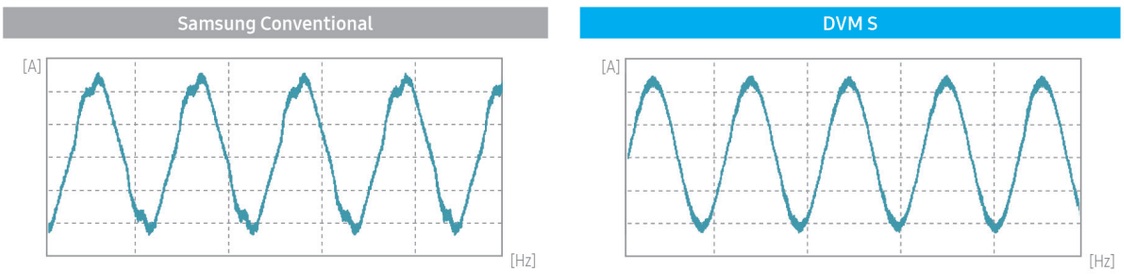
Versatile Piping Connection with Various Knock-Out Holes

The knock-out holes for piping, power and communication cables are located in a variety of directions, allowing for more convenient installation of DVM S since the piping and cable direction can be freely selected from the front, left and right side.

Side:
Communication cable outlet

Adaptive Sine Wave Control

Adaptive sine wave control can reduce Total Harmonic Distortion (THS). Therefore, DVM S does not need to use shield wiring for communication.



*Based on Samsung's internal test results with comparison of selected Samsung's conventional models. Individual test results may vary.

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Specifications

DVM S High EER Heat Recovery (3-Pipe)

				AM080JXVHGR/ET	AM100JXVHGR/ET	AM120JXVHGR/ET	AM140NXVHGR/ET
Model Name							
Power Supply			Ø, #, V, Hz	3,4,380-415,50	3,4,380-415,50	3,4,380-415,50	3,4,380-415,50
Mode			-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP		HP	8	10	12	14
	Capacity	Cooling	kW	22,4	28,0	33,6	39.3
		Heating	kW	22,4	28,0	33,6	39.3
	Maximum number of connectable indoor units		EA	14,0	18,0	21,0	26,0
	Total capacity of the connected Indoor Units	Min.	kW	11,2	14,0	16,8	20,0
		Max.	kW	29,1	36,4	43,7	52,0
Power	Power Input	Cooling	kW	4,59	6,22	7,57	8,89
		Heating	kW	4,08	5,23	6,72	8,55
	Current Input	Cooling	A	7,40	10,00	12,10	14,30
		Heating	A	6,50	8,40	10,80	13,70
	Current	MCA	A	18,0	21,1	25,0	25,00
		MFA	A	25	32	32	32,00
Efficiency	EER	Cooling	W/W	4,88	4,50	4,44	4,50
	COP	Heating	W/W	5,49	5,35	5,00	4,68
Compressor	Output		kW x n	5.18 x 1	6.39 x 1	6.39 x 1	6.39 x 1
	Model Name		-	52cc x 1	66cc x 1	66cc x 1	66cc x 1
	Oil	Type	-	PVE	PVE	PVE	PVE
		Initial charge	cc x n	1,100 x 1cc	1,100 x 1cc	1,100 x 1cc	1,100 x 1cc
Fan	Type		-	Propeller	Propeller	Propeller	Propeller
	Discharge direction		-	Vertical	Vertical	Vertical	Vertical
	Quantity		EA	1	1	1	2
	Air Flow Rate		m³/min	170	170	170	255
			l/s	-	-	-	-
	External Static Pressure	Max.	₪Aq	8,0	8,0	8,0	8,0
			Pa	-	-	-	-
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	830 x 1	830 x 1	830 x 1	620 x 2
Piping Connections	Liquid Pipe		Φ, mm	9,52	9,52	12,7	12,7
			Φ, inch	3/8"	3/8"	1/2"	1/2"
	Gas Pipe		Φ, mm	19,05	22,22	28,58	28,58
			Φ, inch	3/4"	7/8"	1+1/8"	1+1/8"
	High pressure Gas Pipe(HR Only)		Φ, mm	15.88	19,05	19,05	22.22
			Φ, inch	5/8"	3/4"	3/4"	7/8"
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	200[220]
	Piping length (1st Branch-IDU)	Max.	m	90	90	90	90
	Total piping length (System)	Max.	m	1,000	1,000	1,000	1,000
	Level difference (ODU in highest position)	Max.	m	110	110	110	110
	Level difference (IDU in highest position)	Max.	m	110	110	110	110
	Level difference (IDU-IDU)	Max.	m	50	50	50	50
Wiring connections	Transmission Cable		mm²	0.75	0.75	0.75	0.75
	Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	6,5	6,5	6,5	9,4
			tCO2e	13,6	13,6	13,6	19,6
Sound	Sound Pressure	Cooling	dB(A)	57	58	62	61
	Sound Power		dB(A)	77	78	83	81
External Dimensions	Net Weight		kg	201,0	201,0	201,0	254,0
	Net Dimensions (WxHxD)		₪	880 x 1,695 x 765	880 x 1,695 x 765	880 x 1,695 x 765	1295 x 1695 x 765
Operating Temp. Range"	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-25 ~ 24	-25 ~ 24	-25 ~ 24	-25 ~ 24

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Specifications

DVM S High EER Heat Recovery (3-Pipe)

AM160NXVHGR/ET	AM180NXVHGR/ET	AM200NXVHGR/ET	AM220NXVHGR/ET	AM240MXVGNR/ET	AM260MXVGNR/ET
3,4,380-415,50	3,4,380-415,50	3,4,380-415,50	3,4,380-415,50	3,4,380-415,50/60	3,4,380-415,50/60
HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
16	18	20	22	24	26
42.0	50,4	56,0	61,6	67.2	72.8
42.0	50,4	56,0	61,6	67.2	72.8
29,0	32,0	36,0	40,0	43	47
22,5	25,2	28,0	30,8	33.6	36.4
58,5	65,5	72,8	80,1	87.4	94.6
10,92	12,32	13,83	15,88	18.61	20.92
8,95	10,02	11,22	12,91	13.20	15.17
17,50	19,80	22,20	25,50	29.80	33.60
14,40	16,10	18,00	20,70	21.20	24.30
32,00	39,20	42,00	44,60	55.0	60.0
40,00	50,00	63,00	63,00	63.0	75.0
4,12	4,72	4,48	3,91	3,61	3,48
4,69	5,39	4,94	4,37	5,09	4,8
4.39 x 2	6.39 x 2	6.39 x 2	6.39 x 2	6.76 x 2	7.81 x 2
DSGA046FAVA x 2	DSGB066FAVB x 2	DSGB066FAVB x 2	DSGB066FAVB x 2	DSGB070FAVA x 2	DS4GJ5080FVA x 2
PVE	PVE	PVE	PVE	PVE	PVE
900 x 2cc	1100 x 2cc	1100 x 2cc	1100 x 2	1100 x 2cc	1400 x 2cc
Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Vertical	Vertical	Vertical	Vertical	Vertical	Vertical
2	2	2	2	2	2
255	290	290	290	340	340
-	-	-	-		
8,0	8,0	8,0	8,0	8.0	8.0
-	-	-	-	-	-
BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
620 x 2	620 x 2	620 x 2	620 x 2	620 x 2	620 x 2
12,7	15,88	15,88	15,88	15.88	19.05
1/2"	5/8"	5/8"	5/8"	5/8"	3/4"
28,58	28,58	28,58	28,58	34.92	34.92
1+1/8"	1+1/8"	1+1/8"	1+1/8"	1+3/8"	1+3/8"
22.22	22.22	28,58	28,58	34,92	34,92
7/8"	7/8"	1+1/8"	1+1/8"	1+3/8"	1+3/8"
200[220]	200[220]	200[220]	200[220]	200[220]	200[220]
90	90	90	90	90	90
1,000	1,000	1,000	1,000	1,000	1,000
110	110	110	110	110	110
110	110	110	110	110	110
50	50	50	50	50	50
0.75	0.75	0.75	0.75	0.75	0.75
F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2
R410A	R410A	R410A	R410A	R410A	R410A
9,4	8,4	11,0	11,0	14.0	14.0
19,6	17,5	23,0	23,0	29.23	29.23
62	63	64	65	69	69
82	85	86	88	90	90
285,0	302,0	314,0	314,0	350.0	358.0
1295 x 1695 x 765	1295 x 1695 x 765	1295 x 1695 x 765	1295 x 1695 x 765	1295 x 1795 x 765	1295 x 1695 x 765
-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
-25 ~ 24	-25 ~ 24	-25 ~ 24	-25 ~ 24	-25 ~ 24	-25 ~ 24

4 Dimensional drawing

Heat Recovery - High EER type

AM080JXVHGR/EU, AM100JXVHGR/EU, AM120JXVHGR/EU

Units : mm / inches

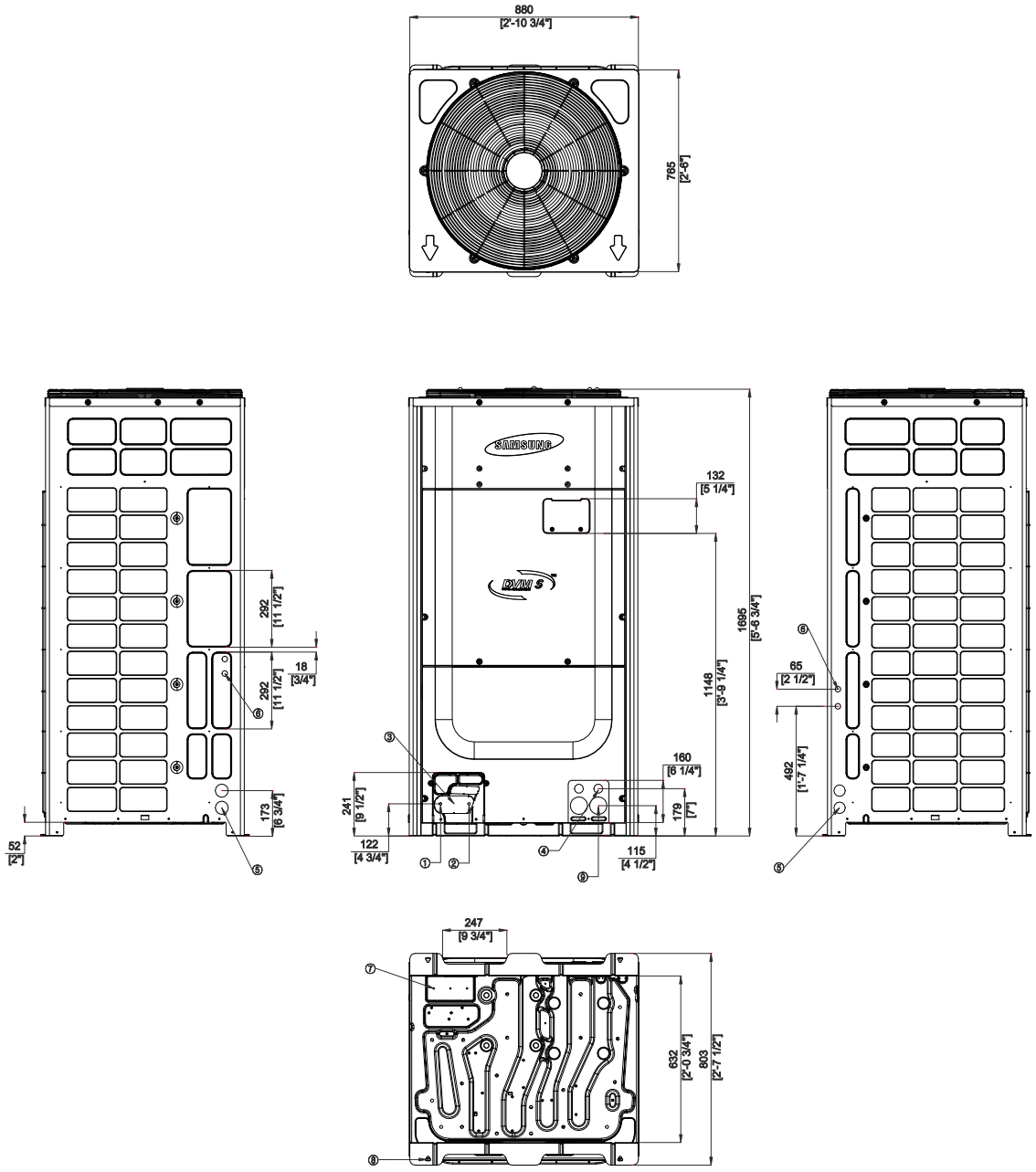

Table of descriptions			
1	Low pressure gas pipe	7	Knock-out Hole for Ref. Piping
2	High pressure gas pipe	8	Anchor Bolt Hole
3	Liquid pipe	9	Power wiring conduit
4	Communication wiring conduit	10	
5	Power wiring conduit	11	
6	Communication wiring conduit	12	

4 Dimensional drawing

Heat Recovery - High EER type

AM140JXVHGR/EU, AM160JXVHGR/EU, AM180JXVHGR/EU, AM200JXVHGR/EU, AM220JXVHGR/EU

Units : mm / inches

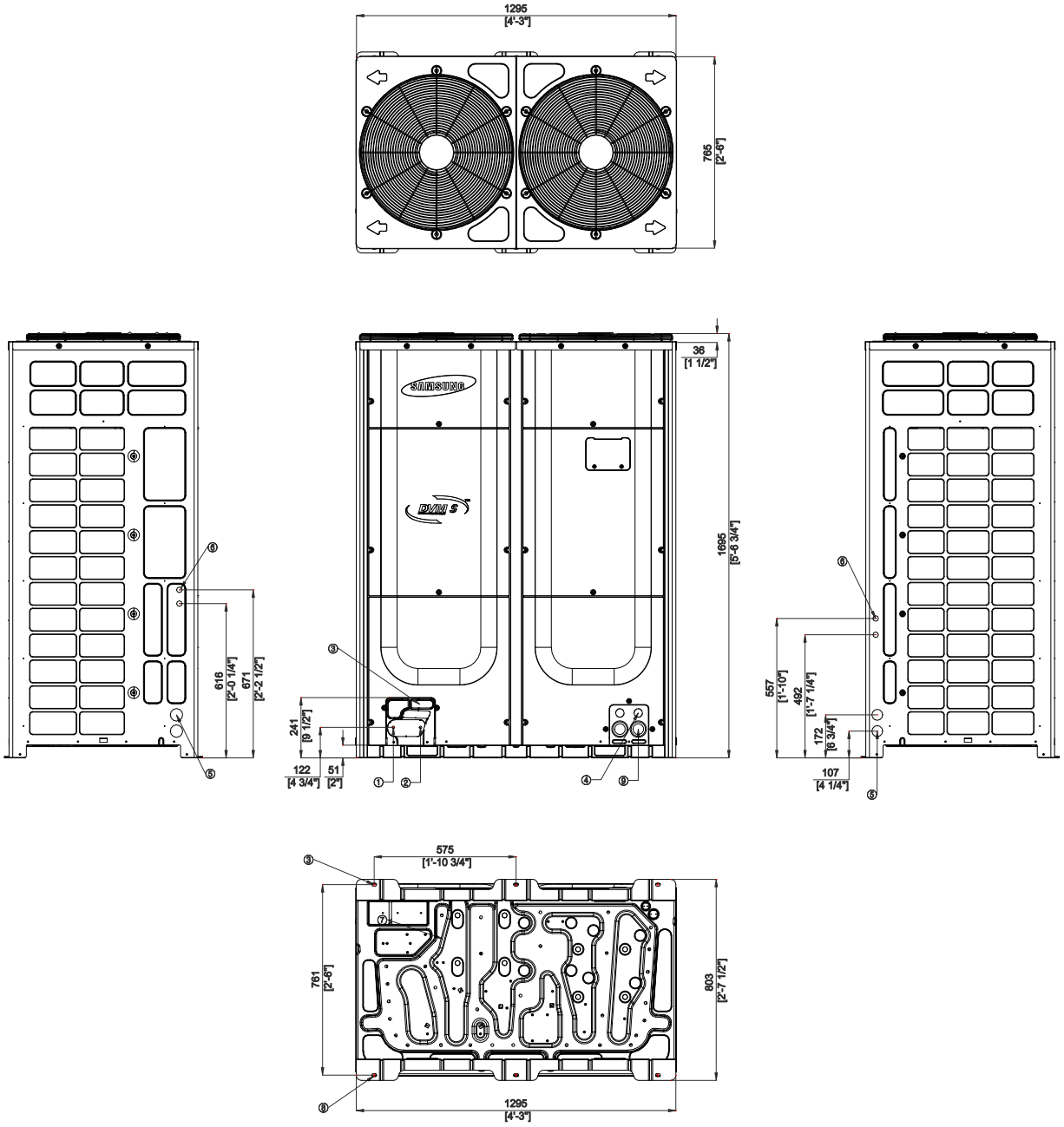

Table of descriptions			
1	Low Pressure Gas Ref. pipe	7	Knock-out Hole for Ref. Piping
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4	Communication wiring conduit	10	
5	Power wiring conduit	11	
6	Communication wiring conduit	12	

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DVMS
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