

SAMSUNG

VRF

Technical Data Book

DVM S for America (2)
(R410A, 60Hz, HP/HR)



Model : AM***F/H/JXVA**2AA, AM***KXVGJ**AA

History

Version	Modification	Date	Remark
Ver.1.0	Release DVM S TDB for America (Version 2)	'16. 12. 10	
Ver.1.1	Modify additional refrigerant Table (P76)	'17. 01. 16	
Ver.1.2	Updated '9. AHRI Data' (P87~89)	'18. 01. 17	
Ver.1.3	Revised the specifications of ODU(6TON) weight	'18. 04. 24	
Ver.1.4	Released DVM S HR 18TON (J)	'18. 06. 20.	
Ver.1.4.1	Modified combination table error	'18. 07. 03.	
Ver.1.5	Added Note about the connection ratio in spec page	'18. 07. 19.	
Ver.1.6	Updated 'Rated Capacity' data in spec&AHRI data page	'18. 08. 31.	
Ver.1.7	Updated 'Rated Capacity' data in spec&AHRI data page	'19. 01. 30	
Ver.1.8	Added Design Procedure & Combination Ratio page Updated data in spec&AHRI data page	'19. 12. 19	
Ver.1.9	Updated the installation page	'20. 12. 14	

Nomenclature

Outdoor Unit

Model Name

AM	072	F	X	V	A	F	H	2	AA
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) Version		Buyer

(1) Classification

AM	DVM
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(5) Feature 1

V	DVM S
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(2) Capacity

kBtu/h (3 digits)

(6) Feature 2

A	Standard + General Temp.+ Module
G	High EER + General Temp.+ Module

(3) Version

F	2013
H	2014
J	2015
K	2016

(7) Rating Voltage

F	3Ø, 3#, 208~230V, 60Hz
J	3Ø, 3#, 460V, 60Hz

(4) Product Type

X	Outdoor Unit
N	Indoor Unit

(8) Mode

H	Heat Pump
R	Heat Recovery

(※) Version

/	Version
1~9	

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1. Combination Table : Outdoor units

DVM S HP (208~230V)

Model	AM072FXVAFH2AA	AM096FXVAFH2AA	AM120FXVAFH2AA	AM144FXVAFH2AA	AM168HXVAFH2AA	AM192HXVAFH2AA
AM072FXVAFH2AA	1					
AM096FXVAFH2AA		1				
AM120FXVAFH2AA			1			
AM144FXVAFH2AA				1		
AM168HXVAFH2AA					1	
AM192HXVAFH2AA						1
AM216JXVAFH2AA	1			1		
AM240JXVAFH2AA	1				1	
AM264JXVAFH2AA	1					1
AM288JXVAFH2AA				2		
AM312JXVAFH2AA				1	1	
AM336JXVAFH2AA					2	
AM360JXVAFH2AA					1	1
AM384JXVAFH2AA						2
AM408JXVAFH2AA	1			1		1
AM432JXVAFH2AA				3		
AM456JXVAFH2AA			1		2	
AM480JXVAFH2AA				1	2	
AM504JXVAFH2AA					3	
AM528JXVAFH2AA					2	1

DVM S HP (460V)

Model	AM072FXVAJH2AA	AM096FXVAJH2AA	AM120FXVAJH2AA	AM144FXVAJH2AA	AM168HXVAJH2AA	AM192HXVAJH2AA
AM072FXVAJH2AA	1					
AM096FXVAJH2AA		1				
AM120FXVAJH2AA			1			
AM144FXVAJH2AA				1		
AM168HXVAJH2AA					1	
AM192HXVAJH2AA						1
AM216JXVAJH2AA	1			1		
AM240JXVAJH2AA	1				1	
AM264JXVAJH2AA	1					1
AM288JXVAJH2AA				2		
AM312JXVAJH2AA				1	1	
AM336JXVAJH2AA					2	
AM360JXVAJH2AA					1	1
AM384JXVAJH2AA						2
AM408JXVAJH2AA	1			1		1
AM432JXVAJH2AA				3		
AM456JXVAJH2AA			1		2	
AM480JXVAJH2AA				1	2	
AM504JXVAJH2AA					3	
AM528JXVAJH2AA					2	1

1. Combination Table : Outdoor units

DVM S HR (208~230V)

Model	AM072FXVAFR2AA	AM096FXVAFR2AA	AM120FXVAFR2AA	AM144FXVAFR2AA	AM168HXVAFR2AA	AM192HXVAFR2AA
AM072FXVAFR2AA	1					
AM096FXVAFR2AA		1				
AM120FXVAFR2AA			1			
AM144FXVAFR2AA				1		
AM168HXVAFR2AA					1	
AM192HXVAFR2AA						1
AM216JXVAFR2AA	1			1		
AM240JXVAFR2AA	1				1	
AM264JXVAFR2AA	1					1
AM288JXVAFR2AA				2		
AM312JXVAFR2AA				1	1	
AM336JXVAFR2AA					2	
AM360JXVAFR2AA					1	1
AM384JXVAFR2AA						2
AM408JXVAFR2AA	1			1		1
AM432JXVAFR2AA				3		
AM456JXVAFR2AA			1		2	
AM480JXVAFR2AA				1	2	
AM504JXVAFR2AA					3	
AM528JXVAFR2AA					2	1

DVM S HR (460V)

Model	AM072FXVAJR2AA	AM096FXVAJR2AA	AM120FXVAJR2AA	AM144FXVAJR2AA	AM168HXVAJR2AA	AM192HXVAJR2AA
AM072FXVAJR2AA	1					
AM096FXVAJR2AA		1				
AM120FXVAJR2AA			1			
AM144FXVAJR2AA				1		
AM168HXVAJR2AA					1	
AM192HXVAJR2AA						1
AM216JXVAJR2AA	1			1		
AM240JXVAJR2AA	1				1	
AM264JXVAJR2AA	1					1
AM288JXVAJR2AA				2		
AM312JXVAJR2AA				1	1	
AM336JXVAJR2AA					2	
AM360JXVAJR2AA					1	1
AM384JXVAJR2AA						2
AM408JXVAJR2AA	1			1		1
AM432JXVAJR2AA				3		
AM456JXVAJR2AA			1		2	
AM480JXVAJR2AA				1	2	
AM504JXVAJR2AA					3	
AM528JXVAJR2AA					2	1

1. Combination Table : Outdoor units

DVM S 18 TON

Heat Pump

System Model			Outdoor Unit Selection	
Capacity	System Model Code	Number of Modules	16 TON	18 TON
			AM192HXVAJH2AA	AM216KXVGJH/AA
16 TON	-	1	1	
18 TON	-	1		1
34 TON	AM408KXVGJH2AA	2	1	1
36 TON	AM432KXVGJH2AA	2		2

Heat Recovery

System Model			Outdoor Unit Selection	
Capacity	System Model Code	Number of Modules	16 TON	18 TON
			AM192HXVAJR2AA	AM216KXVGJR/AA
16 TON	-	1	1	
18 TON	-	1		1
34 TON	AM408KXVGJR2AA	2	1	1
36 TON	AM432KXVGJR2AA	2		2

2. Design Procedure & Combination Ratio

Combination Ratio (Connection Ratio)

Definition of Combination Ratio, CR

$$CR = \frac{\text{Sum of Nominal Cooling Capacity of Indoor units}}{\text{Nominal Cooling Capacity of Outdoor unit}} * 100\%$$

Constraints of Allowable Combination Ratio

DVM S systems are normally designed to utilize a CR 50% to 130% to ensure effective load balancing between indoor units and outdoor unit. As buildings have become more insulated, and usage and occupancy of buildings are highly variable, more buildings can realize a higher load balancing between IDUs and ODU, thus higher CR (>130%) is often required. If a system design exceeds 130%, risks associated to increased indoor sound level and reduced comfort levels should be considered. Therefore, when it is necessary to design a combination ratio exceeding 130%, the following conditions must be complied with: -

Design & Selection Procedure

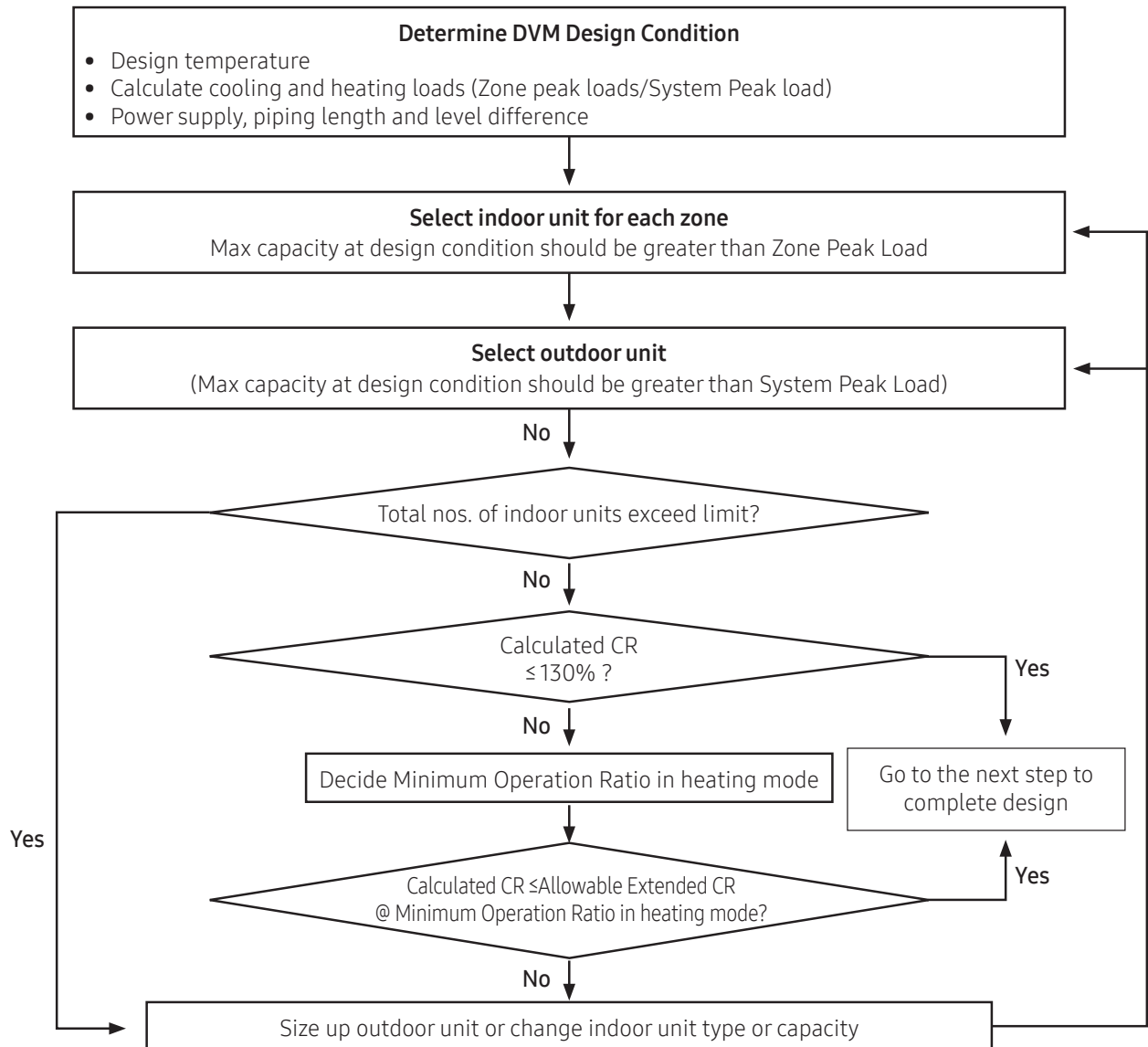


Fig. 1 Design & Selection Procedure for Extended Combination Ratio

2. Design Procedure & Combination Ratio

Combination Ratio (Connection Ratio)

Satisfying cooling & heating comfort

The Maximum Capacity of outdoor unit at design condition calculated from Samsung capacity data table or design tool (DVM Pro) should always be the same or greater than System Peak Load (Block Load) defined in table 1.

Time	Room A	Room B	Room C	Room D	Room E	Room F	Total
	Music Room	Class room	Class room	Class room	Class room	Class room	
09:00	8.4	8.0	8.4	8.0	8.4	8.6	49.8
12:00	9.2	8.8	10.8	8.6	10.8	9.8	58.0
14:00	10.0	9.6	9.6	9.6	11.4	10.8	61.0
16:00	11.0	10.6	8.8	10.8	9.6	9.6	60.4
18:00	9.4	9.0	8.8	9.0	9.0	8.4	53.6

Table 1. Example of System Peak loads

- ▶ Zone Peak Loads (yellow): To satisfy the demand for each room any time
 - Sum of Zone peak Loads = 65.4kW (11.0 + 10.6 + 10.8 + 10.8 + 11.4 + 10.8)
- ▶ Block load (red): Total peak load at a given time of day.
 - Sum of Zone Peak Loads at 14:00 = 61.0kW



- When a system combination ratio is over 130%, a max system capacity is the same as the published capacity in TDB capacity table at the combination ratio of 130%

Cooling Operation Only

When only cooling operation is used, CR is allowed up to 180% if the Max Capacity of outdoor unit is greater than System Peak Load (Block load) as shown table 2.

Outdoor unit	All capacities of H/P & H/R model
Indoor unit	All indoor unit types
Operation Condition	Cooling mode only
Allowable CR	180%

Table 2. Allowable CR in only cooling operation



- Table 2 shows a standard for allowable CR of cooling only model. Samsung Electronics is not responsible for any problem caused by using a heating mode at the site with a system designed by table 2. If heating operation is required, extended CR design must follow section "Allowable CR limit to avoid abnormal sound level risks in heating operation."

2. Design Procedure & Combination Ratio

Combination Ratio (Connection Ratio)

Allowable CR limit to avoid abnormal sound level risks in heating operation

- ▶ If the CR exceeds 130%, in a specific case of heating operation, an indoor unit may have higher sound level than the level specified in the technical documents.
- ▶ In order to minimize the sound level, the system minimum operation ratio needs to be verified and considered as follows:

※ Operation Ratio(%), OR

- Heat Pump system, H/P

$$OR_{(H/P)} (\%) = \frac{\text{Sum of nominal capacity of indoor units running in heating mode}}{\text{Sum of nominal capacity of indoor units}} * 100\%$$

- Heat Recovery system, H/R

$$OR_{(H/R)} (\%) = \frac{\text{Sum of nominal capacity of indoor units running in both cooling & heating mode}}{\text{Sum of nominal capacity of indoor units}} * 100\%$$

The Minimum Operation Ratio should be determined during the project design stage using Fig. 2.

Outdoor unit	All capacities of H/P & H/R (Single, Dual and Triple Module Systems)		
Indoor unit	All indoor unit types ^{*)} except Wall-Mounted		Wall-Mounted
Operation Ratio	Nominal Capacity ≤ 18kBtu/h	Nominal capacity > 18kBtu/h	All capacities
10%	150%	158%	141%
20%	161%	170%	155%
30%	171%	184%	173%

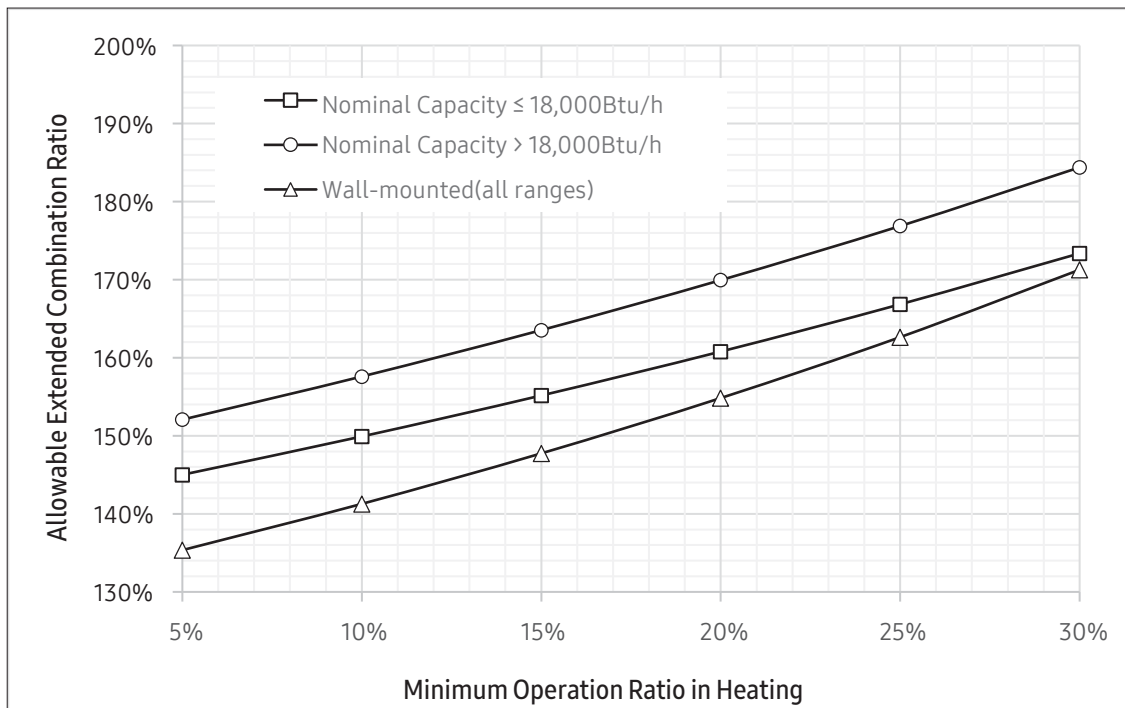


Fig. 2 Allowable CR with respect to indoor unit type as operation ratio increases

2. Design Procedure & Combination Ratio

Combination Ratio (Connection Ratio)

- The minimum operation ratio should be considered during the design stage.
- If a system has a mix of unit types or capacity, the lowest extended connection ratio curve must be utilized.
- In case that a designed Minimum Operation Ratio is less than 5% or more than 30%, the Allowable Extended CR must be considered as the value at 5% and 30%, respectively.
- *)If one of following indoor unit types is included in a system, the CR cannot be extended beyond 130%.

Type of indoor unit	Limited by CR 130%
1Way Cassette / 4Way Cassette (600 x 600)	9kBtu/h or below
360 Cassette / Slim Duct (LSP duct)	12kBtu/h or below
4Way Cassette	18kBtu/h or below
Floor Standing (Exposed or Concealed)	18kBtu/h only
Ceiling Suspended	24kBtu/h only
Hydro unit (HE/HT)	All capacities



NOTE

- Samsung is not responsible for any issue, including abnormal noise that arises during heating operation due solely to the operation rate being lower than the designated combination ratio shown in Fig. 2. Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM072FXVAFH2AA	AM096FXVAFH2AA	AM120FXVAFH2AA	
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60	
Mode			-	HEAT PUMP	HEAT PUMP	
Performance	Ton		TON	6	8	10
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	72,000	96,000	120,000
		Heating ¹⁾	Btu/h	81,000	108,000	135,000
	Capacity (Rated)	Cooling	Btu/h	69,000	92,000	114,000
		Heating	Btu/h	77,000	103,000	129,000
Power	MCA		A	28.0	37.8	43.0
	MOP		A	35.0	50.0	50.0
Compressor	Type		-	SSC Scroll x 1	SSC Scroll x 2	SSC Scroll x 2
	Model Name		-	DS-GB052FBVASG x 1	DS-GB052FBVASG x 2	DS-GB052FBVASG x 2
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	630.0 x 1	620.0 x 2	620.0 x 2
	Air Flow Rate		CFM	7,239.78	9,182.16	9,182.16
	External Static Pressure	Max.	mmAq	8	8	8
			In Wg	0.31	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	9.52	9.52	12.7
			Φ, inch	3/8"	3/8"	1/2"
	Gas Pipe		Φ, mm	19.05	22.22	28.58
			Φ, inch	3/4"	7/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	-	-	-
			Φ, inch	-	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
		Max. Height	m	110(40)	110(40)	110(40)
			ft	361(131)	361(131)	361(131)
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	5.5	7.4	7.4
lbs			12.13	16.31	16.31	
Sound ²⁾	Sound Pressure		dB(A)	60	61	61
	Sound Power			77	81	81
External Dimension	Net Weight		kg	184	280.8	280.8
			lbs	405.7	619.1	619.1
	Shipping Weight		kg	200	299.8	299.8
			lbs	440.9	660.9	660.9
	Net Dimensions (WxHxD)		mm	880 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
			inch	34.65 x 66.73 x 30.12	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	948 x 1,887 x 832	1,363 x 1,887 x 832	1,363 x 1,887 x 832
			inch	37.32 x 74.29 x 32.76	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM144FXVAFH2AA	AM168HXVAFH2AA	AM192HXVAFH2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60
Mode			-	HEAT PUMP	HEAT PUMP
Performance	Ton		TON	12	14
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	144,000	168,000
		Heating ¹⁾	Btu/h	162,000	189,000
	Capacity (Rated)	Cooling	Btu/h	138,000	160,000
Heating		Btu/h	154,000	180,000	
Power	MCA		A	52.6	66.0
	MOP		A	70.0	80.0
Compressor	Type		-	SSC Scroll x 2	SSC Scroll x 2
	Model Name		-	DS-GB052FBVASG x 2	DS-GB052FBVASG x 2
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	620.0 x 2	620.0 x 2
	Air Flow Rate		CFM	9,535.32	10,947.96
	External Static Pressure	Max.	mmAq	8	8
			In Wg	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	12.7	15.88
			Φ, inch	1/2"	5/8"
	Gas Pipe		Φ, mm	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	-	-
			Φ, inch	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
		Max. Height	m	110(40)	110(40)
			ft	361(131)	361(131)
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	8.7	11
lbs			19.18	24.25	
Sound ²⁾	Sound Pressure		dB(A)	62	63
	Sound Power			83	85
External Dimension	Net Weight		kg	295.8	321.0
			lbs	652.10	707.70
	Shipping Weight		kg	314.8	338.0
			lbs	694.00	745.20
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765	1,295 x 1,695 x 765
			inch	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 832	1,363 x 1,887 x 832
			inch	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM216JXVAFH2AA	AM240JXVAFH2AA	AM264JXVAFH2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60
Mode			-	HEAT PUMP	HEAT PUMP
Performance	Ton		TON	18	20
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	216,000	240,000
		Heating ¹⁾	Btu/h	243,000	270,000
	Capacity (Rated)	Cooling	Btu/h	206,000	228,000
Heating		Btu/h	230,000	258,000	
Power	MCA		A	80.6	94.0
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 3	SSC Scroll x 3
	Model Name		-	DS-GB052FBVASG x 3	DS-GB052FBVASG x 3
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	620.0 x 2 + 630.0 x 1	630.0 x 1 + 620.0 x 2
	Air Flow Rate		CFM	9,535.32 + 7,239.78	7,239.78 + 10,947.96
	External Static Pressure	Max.	mmAq	8	8
In Wg			0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	15.88	15.88
			Φ, inch	5/8"	5/8"
	Gas Pipe		Φ, mm	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	-	-
			Φ, inch	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
Max. Height		m	110(40)	110(40)	
		ft	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	14.2	16.5
lbs			31.31	36.38	
Sound ²⁾	Sound Pressure		dB(A)	64	65
	Sound Power			84	86
External Dimension	Net Weight		kg	295.8 + 184	184 + 321.0
			lbs	652.10 + 405.7	405.7 + 707.70
	Shipping Weight		kg	314.8 + 200	200 + 338.0
			lbs	694.00 + 440.9	440.9 + 745.20
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765 + 880 x 1,695 x 765	880 x 1,695 x 765 + 1,295 x 1,695 x 765
			inch	50.98 x 66.73 x 30.12 + 34.65 x 66.73 x 30.12	34.65 x 66.73 x 30.12 + 50.98 x 66.73 x 30.12
Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 832 + 948 x 1,887 x 832	948 x 1,887 x 832 + 1,363 x 1,887 x 832	
		inch	53.66 x 74.29 x 32.76 + 37.32 x 74.29 x 32.76	37.32 x 74.29 x 32.76 + 53.66 x 74.29 x 32.76	
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM288JXVAFH2AA	AM312JXVAFH2AA	AM336JXVAFH2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60
Mode			-	HEAT PUMP	HEAT PUMP
Performance	Ton		TON	24	26
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	288,000	312,000
		Heating ¹⁾	Btu/h	324,000	351,000
	Capacity (Rated)	Cooling	Btu/h	276,000	298,000
Heating		Btu/h	308,000	334,000	
Power	MCA		A	105.2	118.6
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 4	SSC Scroll x 4
	Model Name		-	DS-GB052FBVASG x 4	DS-GB052FBVASG x 4
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 2	(620.0 x 2) x 2
	Air Flow Rate		CFM	9,535.32 x 2	9,535.32 + 10,947.96
	External Static Pressure	Max.	mmAq	8	8
In Wg			0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05
			Φ, inch	3/4"	3/4"
	Gas Pipe		Φ, mm	34.92	34.92
			Φ, inch	1 3/8"	1 3/8"
	Discharge Gas Pipe		Φ, mm	-	-
			Φ, inch	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
	Max. Height	m	110(40)	110(40)	
		ft	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	17.4	19.7
lbs			38.36	43.43	
Sound ²⁾	Sound Pressure		dB(A)	65	66
	Sound Power			86	87
External Dimension	Net Weight		kg	295.8 x 2	295.8 + 321.0
			lbs	652.10 x 2	652.10 + 707.70
	Shipping Weight		kg	314.8.0 x 2	314.8 + 338.0
			lbs	694.00 x 2	694.00 + 745.20
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2
			inch	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2
			inch	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM360JXVAFH2AA	AM384JXVAFH2AA	AM408JXVAFH2AA	
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60	
Mode			-	HEAT PUMP	HEAT PUMP	
Performance	Ton		TON	30	32	
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	360,000	384,000	408,000
		Heating ¹⁾	Btu/h	405,000	432,000	459,000
	Capacity (Rated)	Cooling	Btu/h	344,000	366,000	390,000
Heating		Btu/h	386,000	410,000	436,000	
Power	MCA		A	139.0	146.0	
	MOP		A	-	-	
Compressor	Type		-	SSC Scroll x 4	SSC Scroll x 4	
	Model Name		-	DS-GB052FBVASG x 2 + DS4GJ5066EVASG x 2	DS4GJ5066EVASG x 4	DS-GB052FBVASG x 3 + DS4GJ5066EVASG x 2
	Oil	Type	-	PVE	PVE	
Fan	Type		-	Propeller	Propeller	
	Output x n		W	(620.0 x 2) x 2	(620.0 x 2) x 2	(620.0 x 2) x 2 + 630.0 x 1
	Air Flow Rate		CFM	10,947.96 x 2	10,947.96 x 2	9,535.32 + 7,239.78 + 10,947.96
	External Static Pressure	Max.	mmAq	8	8	8
In Wg			0.31	0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05	19.05
			Φ, inch	3/4"	3/4"	3/4"
	Gas Pipe		Φ, mm	41.28	41.28	41.28
			Φ, inch	1 5/8"	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	-	-	-
			Φ, inch	-	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
Installation Limitation	Max. Height	m	110(40)	110(40)	110(40)	
		ft	361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	
	Factory Charging		kg	22	22	25.2
Sound ²⁾	Sound Pressure		dB(A)	66	67	67
	Sound Power			87	88	88
External Dimension	Net Weight		kg	321.0 + 329.2	329.2 x 2	295.8 + 184 + 329.2
			lbs	707.70 + 725.80	725.80 x 2	652.10 + 405.7 + 725.80
	Shipping Weight		kg	338.0 + 346.2	346.2 x 2	314.8 + 200 + 346.2
			lbs	745.20 + 763.20	763.20 x 2	694.00 + 440.9 + 763.20
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2 + 880 x 1,695 x 765
			inch	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2 + 34.65 x 66.73 x 30.12
Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2 + 948 x 1,887 x 832	
		inch	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2 + 37.32 x 74.29 x 32.76	
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM432JXVAFH2AA	AM456JXVAFH2AA	AM480JXVAFH2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60
Mode			-	HEAT PUMP	HEAT PUMP
Performance	Ton		TON	36	38
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	432,000	456,000
		Heating ¹⁾	Btu/h	486,000	513,000
	Capacity (Rated)	Cooling	Btu/h	416,000	436,000
Heating		Btu/h	460,000	490,000	
Power	MCA		A	157.8	175.0
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 6	SSC Scroll x 6
	Model Name		-	DS-GB052FBVASG x 6	DS-GB052FBVASG x 6
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 3	(620.0 x 2) x 3
	Air Flow Rate		CFM	9,535.32 x 3	9,182.16 + 10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8
In Wg			0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05
			Φ, inch	3/4"	3/4"
	Gas Pipe		Φ, mm	41.28	41.28
			Φ, inch	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	-	-
			Φ, inch	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
Max. Height		m	110(40)	110(40)	
		ft	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	26.1	29.4
lbs			57.54	64.82	
Sound ²⁾	Sound Pressure		dB(A)	67	67
	Sound Power			88	89
External Dimension	Net Weight		kg	295.8 x 3	280.8 + 321.0 x 2
			lbs	652.10 x 3	619.10 + 707.70 x 2
	Shipping Weight		kg	314.8 x 3	299.8 + 338.0 x 2
			lbs	694.00 x 3	660.90 + 745.20 x 2
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3	(1,295 x 1,695 x 765) x 3
			inch	(50.98 x 66.73 x 30.12) x 3	(50.98 x 66.73 x 30.12) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3	(1,363 x 1,887 x 832) x 3
			inch	(53.66 x 74.29 x 32.76) x 3	(53.66 x 74.29 x 32.76) x 3
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (208~230V)

Type			DVMS(NEW)	DVMS(NEW)
Model Name			AM504JXVAFH2AA	AM528JXVAFH2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60
Mode			HEAT PUMP	HEAT PUMP
Performance	Ton		TON	42
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	504,000
		Heating ¹⁾	Btu/h	567,000
	Capacity (Rated)	Cooling	Btu/h	480,000
Heating		Btu/h	536,000	
Power	MCA		A	198.0
	MOP		A	-
Compressor	Type		-	SSC Scroll x 6
	Model Name		-	DS-GB052FBVASG x 6
	Oil	Type	-	PVE
Fan	Type		-	Propeller
	Output x n		W	(620.0 x 2) x 3
	Air Flow Rate		CFM	10,947.96 x 3
	External Static Pressure	Max.	mmAq	8
			In Wg	0.31
Piping Connections	Liquid Pipe		Φ, mm	19.05
			Φ, inch	3/4"
	Gas Pipe		Φ, mm	41.28
			Φ, inch	1 5/8"
	Discharge Gas Pipe		Φ, mm	-
			Φ, inch	-
	Installation Limitation	Max. Length	m	200(220)
			ft	656(722)
		Max. Height	m	110(40)
			ft	361(131)
Refrigerant	Type		-	R410A
	Factory Charging		kg	33
			lbs	72.75
Sound ²⁾	Sound Pressure		dB(A)	68
	Sound Power			90
External Dimension	Net Weight		kg	321.0 x 3
			lbs	707.7 x 3
	Shipping Weight		kg	338.0 x 3
			lbs	745.2 x 3
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3
			inch	(50.98 x 66.73 x 30.12) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3
			inch	(53.66 x 74.29 x 32.76) x 3
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM072FXVAJH2AA	AM096FXVAJH2AA	AM120FXVAJH2AA	
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60	
Mode		-	HEAT PUMP	HEAT PUMP	HEAT PUMP	
Performance	Ton		TON	6	8	10
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	72,000	96,000	120,000
		Heating ¹⁾	Btu/h	81,000	108,000	135,000
	Capacity (Rated)	Cooling	Btu/h	69,000	92,000	114,000
Heating		Btu/h	77,000	103,000	129,000	
Power	MCA		A	16.4	19.0	21.7
	MOP		A	20.0	25.0	30.0
Compressor	Type		-	SSC Scroll x 1	SSC Scroll x 1	SSC Scroll x 1
	Model Name		-	DS-GB052FAVBSG x 1	DS-GB066FAVBSG x 1	DS-GB066FAVBSG x 1
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	630.0 x 1	620.0 x 2	620.0 x 2
	Air Flow Rate		CFM	7,239.78	9,182.16	9,182.16
	External Static Pressure	Max.	mmAq	8	8	8
			In Wg	0.31	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	9.52	9.52	12.7
			Φ, inch	3/8"	3/8"	1/2"
	Gas Pipe		Φ, mm	19.05	22.22	28.58
			Φ, inch	3/4"	7/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	-	-	-
			Φ, inch	-	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
		Max. Height	m	110(40)	110(40)	110(40)
ft			361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	5.5	7.4	7.4
lbs			12.13	16.31	16.31	
Sound ²⁾	Sound Pressure		dB(A)	60	61	61
	Sound Power			77	81	81
External Dimension	Net Weight		kg	189	242.8	242.8
			lbs	416.7	535.3	535.3
	Shipping Weight		kg	205	261.8	261.8
			lbs	451.9	577.2	577.2
	Net Dimensions (WxHxD)		mm	880 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
			inch	34.65 x 66.73 x 30.12	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	948 x 1,887 x 832	1,363 x 1,887 x 832	1,363 x 1,887 x 832
inch			37.32 x 74.29 x 32.76	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76	
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM144FXVAJH2AA	AM168HXVAJH2AA	AM192HXVAJH2AA	
Power Supply		Φ, #, V, Hz	3,3460,60	3,3460,60	3,3460,60	
Mode			-	HEAT PUMP	HEAT PUMP	
Performance	Ton		TON	12	14	16
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	144,000	168,000	192,000
		Heating ¹⁾	Btu/h	162,000	189,000	216,000
	Capacity (Rated)	Cooling	Btu/h	138,000	160,000	184,000
Heating		Btu/h	154,000	180,000	206,000	
Power	MCA		A	26.4	33.0	37.0
	MOP		A	40.0	40.0	50.0
Compressor	Type		-	SSC Scroll x 2	SSC Scroll x 2	SSC Scroll x 2
	Model Name		-	DS-GB052FAVBSG x 2	DS-GB052FAVBSG x 2	DS-GB066FAVBSG x 2
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	620.0 x 2	620.0 x 2	620.0 x 2
	Air Flow Rate		CFM	9,535.32	10,947.96	10,947.96
	External Static Pressure	Max.	mmAq	8	8	8
			In Wg	0.31	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	12.7	15.88	15.88
			Φ, inch	1/2"	5/8"	5/8"
	Gas Pipe		Φ, mm	28.58	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	-	-	-
			Φ, inch	-	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
		Max. Height	m	110(40)	110(40)	110(40)
ft			361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	8.7	11	11
			lbs	19.18	24.25	24.25
Sound ²⁾	Sound Pressure		dB(A)	62	63	64
	Sound Power			83	85	86
External Dimension	Net Weight		kg	302.8	322.1	330.1
			lbs	667.6	710.1	727.7
	Shipping Weight		kg	321.8	339.1	347.1
			lbs	709.4	747.6	765.2
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
			inch	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 832	1,363 x 1,887 x 832	1,363 x 1,887 x 832
			inch	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM216JXVAJH2AA	AM240JXVAJH2AA	AM264JXVAJH2AA	
Power Supply		Φ, #, V, Hz	3,3460,60	3,3460,60	3,3460,60	
Mode			-	HEAT PUMP	HEAT PUMP	
Performance	Ton		TON	18	20	22
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	216,000	240,000	264,000
		Heating ¹⁾	Btu/h	243,000	270,000	297,000
	Capacity (Rated)	Cooling	Btu/h	206,000	228,000	252,000
Heating		Btu/h	230,000	258,000	282,000	
Power	MCA		A	42.8	49.4	53.4
	MOP		A	-	-	-
Compressor	Type		-	SSC Scroll x 3	SSC Scroll x 3	SSC Scroll x 3
	Model Name		-	DS-GB052FAVBSG x 3	DS-GB052FAVBSG x 3	DS-GB052FAVBSG x 1 + DS-GB066FAVBSG x 2
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	630.0 x 1 + 620.0 x 2	630.0 x 1 + 620.0 x 2	630.0 x 1 + 620.0 x 2
	Air Flow Rate		CFM	7,239.78 + 9,535.32	7,239.78 + 10,947.96	7,239.78 + 10,947.96
	External Static Pressure	Max.	mmAq	8	8	8
			In Wg	0.31	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	15.88	15.88	19.05
			Φ, inch	5/8"	5/8"	3/4"
	Gas Pipe		Φ, mm	28.58	28.58	34.92
			Φ, inch	1 1/8"	1 1/8"	1 3/8"
	Discharge Gas Pipe		Φ, mm	-	-	-
			Φ, inch	-	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
	Installation Limitation	Max. Height	m	110(40)	110(40)	110(40)
ft			361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	14.2	16.5	16.5
			lbs	31.31	36.38	36.38
Sound ²⁾	Sound Pressure		dB(A)	64	65	65
	Sound Power			84	86	87
External Dimension	Net Weight		kg	302.8 + 189	189 + 322.1	189 + 330.1
			lbs	667.6 + 416.7	416.7 + 710.1	416.7 + 727.7
	Shipping Weight		kg	321.8 + 205	205 + 339.1	205 + 347.1
			lbs	709.4 + 451.9	451.9 + 747.6	451.9 + 765.2
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765 + 880 x 1,695 x 765	880 x 1,695 x 765 + 1,295 x 1,695 x 765	880 x 1,695 x 765 + 1,295 x 1,695 x 765
			inch	50.98 x 66.73 x 30.12 + 34.65 x 66.73 x 30.12	34.65 x 66.73 x 30.12 + 50.98 x 66.73 x 30.12	34.65 x 66.73 x 30.12 + 50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 832 + 948 x 1,887 x 832	948 x 1,887 x 832 + 1,363 x 1,887 x 832	948 x 1,887 x 832 + 1,363 x 1,887 x 832
inch			53.66 x 74.29 x 32.76 + 37.32 x 74.29 x 32.76	37.32 x 74.29 x 32.76 + 53.66 x 74.29 x 32.76	37.32 x 74.29 x 32.76 + 53.66 x 74.29 x 32.76	
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM288JXVAJH2AA	AM312JXVAJH2AA	AM336JXVAJH2AA	
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60	
Mode		-	HEAT PUMP	HEAT PUMP	HEAT PUMP	
Performance	Ton		TON	24	26	28
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	288,000	312,000	336,000
		Heating ¹⁾	Btu/h	324,000	351,000	378,000
	Capacity (Rated)	Cooling	Btu/h	276,000	298,000	320,000
Heating		Btu/h	308,000	334,000	360,000	
Power	MCA		A	52.8	59.4	66.0
	MOP		A	-	-	-
Compressor	Type		-	SSC Scroll x 4	SSC Scroll x 4	SSC Scroll x 4
	Model Name		-	DS-GB052FAVBSG x 4	DS-GB052FAVBSG x 4	DS-GB052FAVBSG x 4
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 2	(620.0 x 2) x 2	(620.0 x 2) x 2
	Air Flow Rate		CFM	9,535.32 x 2	9,535.32 + 10,947.96	10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8	8
In Wg			0.31	0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05	19.05
			Φ, inch	3/4"	3/4"	3/4"
	Gas Pipe		Φ, mm	34.92	34.92	34.92
			Φ, inch	1 3/8"	1 3/8"	1 3/8"
	Discharge Gas Pipe		Φ, mm	-	-	-
			Φ, inch	-	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
Max. Height		m	110(40)	110(40)	110(40)	
		ft	361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	17.4	19.7	22
			lbs	38.36	43.43	48.5
Sound ²⁾	Sound Pressure		dB(A)	65	66	66
	Sound Power			86	87	88
External Dimension	Net Weight		kg	302.8 x 2	302.8 + 322.1	322.1 x 2
			lbs	667.6 x 2	667.6 + 710.1	710.1 x 2
	Shipping Weight		kg	321.8 x 2	321.8 + 339.1	339.1 x 2
			lbs	709.4 x 2	6709.4 + 747.6	747.6 x 2
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2
			inch	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2
			inch	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM360JXVAJH2AA	AM384JXVAJH2AA	AM408JXVAJH2AA
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60
Mode			-	HEAT PUMP	HEAT PUMP
Performance	Ton		TON	30	32
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	360,000	384,000
		Heating ¹⁾	Btu/h	405,000	432,000
	Capacity (Rated)	Cooling	Btu/h	344,000	366,000
Heating		Btu/h	386,000	410,000	
Power	MCA		A	70.0	74.0
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 4	SSC Scroll x 4
	Model Name		-	DS-GB052FAVBSG x 2 + DS-GB066FAVBSG x 2	DS-GB066FAVBSG x 4
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 2	(620.0 x 2) x 2
	Air Flow Rate		CFM	10,947.96 x 2	10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8
			In Wg	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05
			Φ, inch	3/4"	3/4"
	Gas Pipe		Φ, mm	41.28	41.28
			Φ, inch	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	-	-
			Φ, inch	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
		Max. Height	m	110(40)	110(40)
			ft	361(131)	361(131)
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	22	25.2
lbs			48.5	55.56	
Sound ²⁾	Sound Pressure		dB(A)	66	67
	Sound Power			87	88
External Dimension	Net Weight		kg	322.1 + 330.1	330.1 x 2
			lbs	710.1 + 727.7	727.7 x 2
	Shipping Weight		kg	339.1 + 347.1	347.1 x 2
			lbs	747.6 + 765.2	765.2 x 2
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2
			inch	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2
			inch	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM432JXVAJH2AA	AM456JXVAJH2AA	AM480JXVAJH2AA	
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60	
Mode		-	HEAT PUMP	HEAT PUMP	HEAT PUMP	
Performance	Ton		TON	36	38	40
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	432,000	456,000	480,000
		Heating ¹⁾	Btu/h	486,000	513,000	540,000
	Capacity (Rated)	Cooling	Btu/h	416,000	436,000	456,000
Heating		Btu/h	460,000	490,000	510,000	
Power	MCA		A	79.2	87.7	92.4
	MOP		A	-	-	-
Compressor	Type		-	SSC Scroll x 6	SSC Scroll x 5	SSC Scroll x 6
	Model Name		-	DS-GB052FAVBSG x 6	DS-GB066FAVBSG x 1 + DS-GB052FAVBSG x 4	DS-GB052FAVBSG x 6
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 3	(620.0 x 2) x 3	(620.0 x 2) x 3
	Air Flow Rate		CFM	9,535.32 x 3	9,182.16 + 10,947.96 x 2	9,535.32 + 10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8	8
In Wg			0.31	0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05	19.05
			Φ, inch	3/4"	3/4"	3/4"
	Gas Pipe		Φ, mm	41.28	41.28	41.28
			Φ, inch	1 5/8"	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	-	-	-
			Φ, inch	-	-	-
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
Max. Height		m	110(40)	110(40)	110(40)	
		ft	361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	26.1	29.4	30.7
			lbs	57.54	64.82	67.68
Sound ²⁾	Sound Pressure		dB(A)	67	67	67
	Sound Power			88	89	89
External Dimension	Net Weight		kg	302.8 x 3	242.8 + 322.1x 2	302.8 + 322.1 x 2
			lbs	667.6 x 3	535.3 + 710.1 x 2	667.6 + 710.1 x 2
	Shipping Weight		kg	321.8 x 3	261.8 + 339.1x 2	321.8 + 339.1 x 2
			lbs	709.4 x 3	577.2 + 747.6 x 2	709.4 + 747.6 x 2
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3	(1,295 x 1,695 x 765) x 3	(1,295 x 1,695 x 765) x 3
			inch	(50.98 x 66.73 x 30.12) x 3	(50.98 x 66.73 x 30.12) x 3	(50.98 x 66.73 x 30.12) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3	(1,363 x 1,887 x 832) x 3	(1,363 x 1,887 x 832) x 3
			inch	(53.66 x 74.29 x 32.76) x 3	(53.66 x 74.29 x 32.76) x 3	(53.66 x 74.29 x 32.76) x 3
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP (460V)

Type			DVMS(NEW)	DVMS(NEW)
Model Name			AM504JXVAJH2AA	AM528JXVAJH2AA
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60
Mode			HEAT PUMP	HEAT PUMP
Performance	Ton		TON	42
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	504,000
		Heating ¹⁾	Btu/h	567,000
	Capacity (Rated)	Cooling	Btu/h	480,000
Heating		Btu/h	536,000	
Power	MCA		A	99.0
	MOP		A	-
Compressor	Type		-	SSC Scroll x 6
	Model Name		-	DS-GB052FAVBSG x 6
	Oil	Type	-	PVE
Fan	Type		-	Propeller
	Output x n		W	(620.0 x 2) x 3
	Air Flow Rate		CFM	10,947.96 x 3
	External Static Pressure	Max.	mmAq	8
			In Wg	0.31
Piping Connections	Liquid Pipe		Φ, mm	19.05
			Φ, inch	3/4"
	Gas Pipe		Φ, mm	41.28
			Φ, inch	1 5/8"
	Discharge Gas Pipe		Φ, mm	-
			Φ, inch	-
	Installation Limitation	Max. Length	m	200(220)
			ft	656(722)
		Max. Height	m	110(40)
			ft	361(131)
Refrigerant	Type		-	R410A
	Factory Charging		kg	33
lbs			72.75	
Sound ²⁾	Sound Pressure		dB(A)	68
	Sound Power			90
External Dimension	Net Weight		kg	333.1 x 3
			lbs	710.1 x 3
	Shipping Weight		kg	339.1 x 3
			lbs	747.6 x 3
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3
			inch	(50.98 x 66.73 x 30.12) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3
			inch	(53.66 x 74.29 x 32.76) x 3
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HP 18 TON(460V)

Type			DVM S(NEW)	DVM S(NEW)	DVM S(NEW)	
Model Name			AM216KXVGJH/AA	AM408KXVGJH2AA	AM432KXVGJH2AA	
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60	
Mode		-	HEAT PUMP	HEAT PUMP	HEAT PUMP	
Performance	Ton	TON	18.00	34.00	36.00	
	Capacity (Nominal)	Cooling	Btu/h	216,000	408,000	432,000
		Heating	Btu/h	243,000	459,000	486,000
	Capacity (Rated)	Cooling	Btu/h	206,000	390,000	416,000
		Heating	Btu/h	230,000	436,000	460,000
	MCA	A	42.80 (MCA)	79.80 (MCA)	85.60 (MCA)	
MFA	A	60.00	-	-		
Compressor	Type	-	SSC Scroll x 2	SSC Scroll x 4	SSC Scroll x 4	
	Output	kW × n	(6.39x2)	(6.39x2) + (6.39x2)	(6.39x2)x2	
	Model Name		-	DS-GB066FAVB x 2	DS-GB066FAVBSG x 2 + DS-GB066FAVB x 2	DS-GB066FAVB x 4
	Oil	Type	-	PVE	PVE	PVE
		Initial Charge	cc	2200	4400	4400
		fl. oz.	74.39	148.78	148.78	
Fan	Type	-	Propeller	Propeller	Propeller	
	Output x n	W	620.0 x 2	(620.0 x 2) x 2	(620.0 x 2) x 2	
	Air Flow Rate	CFM	12,007.44	10,947.96 + 12,007.44	12,007.44 x 2	
	External Static Pressure (Max.)	mmAq	8.00	8.00	8.00	
		In Wg	0.31	0.31	0.31	
Piping Connections	Liquid Pipe	Φ, mm	15.88	19.05	19.05	
		Φ, inch	5/8"	3/4"	3/4"	
	Gas Pipe	Φ, mm	28.58	41.28	41.28	
		Φ, inch	1 1/8"	1 5/8"	1 5/8"	
	Discharge Gas Pipe	Φ, mm	-	-	-	
		Φ, inch	-	-	-	
	Installation Limitation	Max. Length	m	200	200	200
			ft	656	656	656
		Max. Height	m	110.0	110.0	110.0
			ft	361	361	361
Refrigerant	Type	-	R410A	R410A	R410A	
	Factory Charging	kg	12.50	23.50	25.00	
		lbs	27.56	51.81	55.12	
Sound 5)	Sound Pressure	dB(A)	66	68	69	
	Sound Power		89	91	92	
External Dimension	Net Weight	kg	340.0	334.0 + 340.0	340.0 x 2	
		lbs	749.57	736.34 + 749.57	749.57 x 2	
	Shipping Weight	kg	362.0	351.0 + 362.0	362.0 x 2	
		lbs	798.07	773.82 + 798.07	798.07 x 2	
	Net Dimensions (WxHxD)	mm	1,295 x 1,795 x 765	1,295 x 1,695 x 765 + 1,295 x 1,795 x 765	(1,295 x 1,795 x 765) x 2	
		inch	50.98 x 70.67 x 30.12	50.98 x 66.73 x 30.12 + 50.98 x 70.67 x 30.12	(50.98 x 70.67 x 30.12) x 2	
	Shipping Dimensions (WxHxD)	mm	1,363 x 1,987 x 832	1,363 x 1,887 x 832 + 1,363 x 1,987 x 832	(1,363 x 1,987 x 832) x 2	
		inch	53.66 x 78.23 x 32.76	53.66 x 74.29 x 32.76 + 53.66 x 78.23 x 32.76	(53.66 x 78.23 x 32.76) x 2	
Operating Temp. Range	Cooling	°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0	
	Heating	°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0	

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -
 Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -
 Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM072FXVAFR2AA	AM096FXVAFR2AA	AM120FXVAFR2AA	
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60	
Mode			-	HEAT RECOVERY	HEAT RECOVERY	
Performance	Ton		TON	6	8	10
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	72,000	96,000	120,000
		Heating ¹⁾	Btu/h	81,000	108,000	135,000
	Capacity (Rated)	Cooling	Btu/h	69,000	92,000	114,000
Heating		Btu/h	77,000	103,000	129,000	
Power	MCA		A	28.0	37.8	43.0
	MOP		A	35.0	50.0	50.0
Compressor	Type		-	SSC Scroll x 1	SSC Scroll x 2	SSC Scroll x 2
	Model Name		-	DS-GB052FBVASG x 1	DS-GB052FBVASG x 2	DS-GB052FBVASG x 2
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	630.0 x 1	620.0 x 2	620.0 x 2
	Air Flow Rate		CFM	7,239.78	9,182.16	9,182.16
	External Static Pressure	Max.	mmAq	8	8	8
			In Wg	0.31	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	9.52	9.52	12.7
			Φ, inch	3/8"	3/8"	1/2"
	Gas Pipe		Φ, mm	19.05	22.22	28.58
			Φ, inch	3/4"	7/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	15.88	19.05	22.22
			Φ, inch	5/8"	3/4"	7/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
		Max. Height	m	110(40)	110(40)	110(40)
			ft	361(131)	361(131)	361(131)
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	5.5	7.4	7.4
lbs			12.13	16.31	16.31	
Sound ²⁾	Sound Pressure		dB(A)	60	61	61
	Sound Power			77	81	81
External Dimension	Net Weight		kg	186	286.8	286.0
			lbs	410.1	632.3	632.3
	Shipping Weight		kg	202	305.8	305.8
			lbs	445.3	674.2	674.2
	Net Dimensions (WxHxD)		mm	880 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
			inch	34.65 x 66.73 x 30.12	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	948 x 1,887 x 832	1,363 x 1,887 x 832	1,363 x 1,887 x 832
			inch	37.32 x 74.29 x 32.76	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM144FXVAFR2AA	AM168HXVAFR2AA	AM192HXVAFR2AA	
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60	
Mode			-	HEAT RECOVERY	HEAT RECOVERY	
Performance	Ton		TON	12	14	16
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	144,000	168,000	192,000
		Heating ¹⁾	Btu/h	162,000	189,000	216,000
	Capacity (Rated)	Cooling	Btu/h	138,000	160,000	184,000
Heating		Btu/h	154,000	180,000	206,000	
Power	MCA		A	52.6	66.0	73.0
	MOP		A	70.0	80.0	90.0
Compressor	Type		-	SSC Scroll x 2	SSC Scroll x 2	SSC Scroll x 2
	Model Name		-	DS-GB052FBVASG x 2	DS-GB052FBVASG x 2	DS4GJ5066EVASG x 2
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	620.0 x 2	620.0 x 2	620.0 x 2
	Air Flow Rate		CFM	9,535.32	10,947.96	10,947.96
	External Static Pressure	Max.	mmAq	8	8	8
			In Wg	0.31	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	12.7	15.88	15.88
			Φ, inch	1/2"	5/8"	5/8"
	Gas Pipe		Φ, mm	28.58	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	22.22	22.22	28.58
			Φ, inch	7/8"	7/8"	1 1/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
		Max. Height	m	110(40)	110(40)	110(40)
ft			361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	8.7	11	11
			lbs	19.18	24.25	24.25
Sound ²⁾	Sound Pressure		dB(A)	62	63	64
	Sound Power			83	85	86
External Dimension	Net Weight		kg	302.8	328.0	336.2
			lbs	667.6	723.1	741.2
	Shipping Weight		kg	321.8	345.0	353.2
			lbs	709.4	760.6	778.7
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
			inch	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 832	1,363 x 1,887 x 832	1,363 x 1,887 x 832
			inch	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM216JXVAFR2AA	AM240JXVAFR2AA	AM264JXVAFR2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60
Mode			-	HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	18	20
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	216,000	240,000
		Heating ¹⁾	Btu/h	243,000	270,000
	Capacity (Rated)	Cooling	Btu/h	206,000	228,000
Heating		Btu/h	230,000	258,000	
Power	MCA		A	80.6	94.0
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 3	SSC Scroll x 3
	Model Name		-	DS-GB052FBVASG x 3	DS-GB052FBVASG x 3
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	620.0 x 2 + 630.0 x 1	630.0 x 1 + 620.0 x 2
	Air Flow Rate		CFM	9,535.32 + 7,239.78	7,239.78 + 10,947.96
	External Static Pressure	Max.	mmAq	8	8
			In Wg	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	15.88	15.88
			Φ, inch	5/8"	5/8"
	Gas Pipe		Φ, mm	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
		Max. Height	m	110(40)	110(40)
ft			361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	14.2	16.5
			lbs	31.31	36.38
Sound ²⁾	Sound Pressure		dB(A)	64	65
	Sound Power			84	86
External Dimension	Net Weight		kg	302.8 + 186	186 + 328.0
			lbs	667.6 + 410.1	410.1 + 723.1
	Shipping Weight		kg	321.8 + 202	202 + 345.0
			lbs	709.4 + 445.3	445.3 + 760.6
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765 + 880 x 1,695 x 765	880 x 1,695 x 765 + 1,295 x 1,695 x 765
			inch	50.98 x 66.73 x 30.12 + 34.65 x 66.73 x 30.12	34.65 x 66.73 x 30.12 + 50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 832 + 948 x 1,887 x 832	948 x 1,887 x 832 + 1,363 x 1,887 x 832
			inch	53.66 x 74.29 x 32.76 + 37.32 x 74.29 x 32.76	37.32 x 74.29 x 32.76 + 53.66 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM288JXVAFR2AA	AM312JXVAFR2AA	AM336JXVAFR2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60
Mode			-	HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	24	26
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	288,000	312,000
		Heating ¹⁾	Btu/h	324,000	351,000
	Capacity (Rated)	Cooling	Btu/h	276,000	298,000
Heating		Btu/h	308,000	334,000	
Power	MCA		A	105.2	118.6
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 4	SSC Scroll x 4
	Model Name		-	DS-GB052FBVASG x 4	DS-GB052FBVASG x 4
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 2	(620.0 x 2) x 2
	Air Flow Rate		CFM	9,535.32 x 2	9,535.32 + 10,947.96
	External Static Pressure	Max.	mmAq	8	8
In Wg			0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05
			Φ, inch	3/4"	3/4"
	Gas Pipe		Φ, mm	34.92	34.92
			Φ, inch	1 3/8"	1 3/8"
	Discharge Gas Pipe		Φ, mm	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
Max. Height		m	110(40)	110(40)	
		ft	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	17.4	19.7
			lbs	38.36	43.43
Sound ²⁾	Sound Pressure		dB(A)	65	66
	Sound Power			86	87
External Dimension	Net Weight		kg	302.8 x 2	302.8 + 328.0
			lbs	667.6 x 2	667.6 + 723.1
	Shipping Weight		kg	321.8 x 2	321.8 + 345.0
			lbs	709.4 x 2	709.4 + 760.6
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2
			inch	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2
			inch	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM360JXVAFR2AA	AM384JXVAFR2AA	AM408JXVAFR2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60
Mode			-	HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	30	32
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	360,000	384,000
		Heating ¹⁾	Btu/h	405,000	432,000
	Capacity (Rated)	Cooling	Btu/h	344,000	366,000
Heating		Btu/h	386,000	410,000	
Power	MCA		A	139.0	146.0
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 4	SSC Scroll x 4
	Model Name		-	DS-GB052FBVASG x 2 + DS4GJ5066EVASG x 2	DS4GJ5066EVASG x 4
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 2	(620.0 x 2) x 2
	Air Flow Rate		CFM	10,947.96 x 2	10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8
			In Wg	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05
			Φ, inch	3/4"	3/4"
	Gas Pipe		Φ, mm	41.28	41.28
			Φ, inch	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	34.92	34.92
			Φ, inch	1 3/8"	1 3/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
		Max. Height	m	110(40)	110(40)
			ft	361(131)	361(131)
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	22	25.2
lbs			48.5	55.56	
Sound ²⁾	Sound Pressure		dB(A)	66	67
	Sound Power			87	88
External Dimension	Net Weight		kg	328.0 + 336.2	302.8 + 186 + 336.2
			lbs	723.1 + 741.2	667.6 + 410.1 + 741.2
	Shipping Weight		kg	345.0 + 353.2	321.8 + 202 + 353.2
			lbs	760.6 + 778.7	709.4 + 445.3 + 778.7
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2 + 880 x 1,695 x 765
			inch	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2 + 34.65 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2 + 948 x 1,887 x 832
			inch	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2 + 37.32 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (208~230V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM432JXVAFR2AA	AM456JXVAFR2AA	AM480JXVAFR2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60	3,3,208-230,60
Mode			-	HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	36	38
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	432,000	456,000
		Heating ¹⁾	Btu/h	486,000	513,000
	Capacity (Rated)	Cooling	Btu/h	416,000	436,000
Heating		Btu/h	460,000	490,000	
Power	MCA		A	157.8	175.0
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 6	SSC Scroll x 6
	Model Name		-	DS-GB052FBVASG x 6	DS-GB052FBVASG x 6
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 3	(620.0 x 2) x 3
	Air Flow Rate		CFM	9,535.32 x 3	9,182.16 + 10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8
In Wg			0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05
			Φ, inch	3/4"	3/4"
	Gas Pipe		Φ, mm	41.28	41.28
			Φ, inch	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	34.92	34.92
			Φ, inch	1 3/8"	1 3/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
Max. Height		m	110(40)	110(40)	
		ft	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	26.1	29.4
lbs			57.54	64.82	
Sound ²⁾	Sound Pressure		dB(A)	67	67
	Sound Power			88	89
External Dimension	Net Weight		kg	302.8 x 3	286.8 + 328.0 x 2
			lbs	667.6 x 3	623.3 + 723.1 x 2
	Shipping Weight		kg	321.8 x 3	305.8 + 345.0 x 2
			lbs	709.4 x 3	674.2 + 760.6 x 2
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3	(1,295 x 1,695 x 765) x 3
			inch	(50.98 x 66.73 x 30.12) x 3	(50.98 x 66.73 x 30.12) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3	(1,363 x 1,887 x 832) x 3
			inch	(53.66 x 74.29 x 32.76) x 3	(53.66 x 74.29 x 32.76) x 3
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (208~230V)

Type			DVMS(NEW)	DVMS(NEW)
Model Name			AM504JXVAFR2AA	AM528JXVAFR2AA
Power Supply		Φ, #, V, Hz	3,3,208-230,60	3,3,208-230,60
Mode			HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	42
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	504,000
		Heating ¹⁾	Btu/h	567,000
	Capacity (Rated)	Cooling	Btu/h	480,000
Heating		Btu/h	536,000	
Power	MCA		A	198.0
	MOP		A	-
Compressor	Type		-	SSC Scroll x 6
	Model Name		-	DS-GB052FBVASG x 6
	Oil	Type	-	PVE
Fan	Type		-	Propeller
	Output x n		W	(620.0 x 2) x 3
	Air Flow Rate		CFM	10,947.96 x 3
	External Static Pressure	Max.	mmAq	8
In Wg			0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05
			Φ, inch	3/4"
	Gas Pipe		Φ, mm	41.28
			Φ, inch	1 5/8"
	Discharge Gas Pipe		Φ, mm	34.92
			Φ, inch	1 3/8"
	Installation Limitation	Max. Length	m	200(220)
			ft	656(722)
Max. Height		m	110(40)	
		ft	361(131)	
Refrigerant	Type		-	R410A
	Factory Charging		kg	33
lbs			72.75	
Sound ²⁾	Sound Pressure		dB(A)	68
	Sound Power			90
External Dimension	Net Weight		kg	328.0 x 3
			lbs	723.1 x 3
	Shipping Weight		kg	345.0 x 3
			lbs	760.6 x 3
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3
			inch	(50.98 x 66.73 x 30.12) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3
			inch	(53.66 x 74.29 x 32.76) x 3
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM072FXVAJR2AA	AM096FXVAJR2AA	AM120FXVAJR2AA	
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60	
Mode			-	HEAT RECOVERY	HEAT RECOVERY	
Performance	Ton		TON	6	8	10
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	72,000	96,000	120,000
		Heating ¹⁾	Btu/h	81,000	108,000	135,000
	Capacity (Rated)	Cooling	Btu/h	69,000	92,000	114,000
Heating		Btu/h	77,000	103,000	129,000	
Power	MCA		A	16.4	19.0	21.7
	MOP		A	20.0	25.0	30.0
Compressor	Type		-	SSC Scroll x 1	SSC Scroll x 1	SSC Scroll x 1
	Model Name		-	DS-GB052FAVBSG x 1	DS-GB066FAVBSG x 1	DS-GB066FAVBSG x 1
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	630.0 x 1	620.0 x 2	620.0 x 2
	Air Flow Rate		CFM	7,239.78	9,182.16	9,182.16
	External Static Pressure	Max.	mmAq	8	8	8
			In Wg	0.31	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	9.52	9.52	12.7
			Φ, inch	3/8"	3/8"	1/2"
	Gas Pipe		Φ, mm	19.05	22.22	28.58
			Φ, inch	3/4"	7/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	15.88	19.05	22.22
			Φ, inch	5/8"	3/4"	7/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
		Max. Height	m	110(40)	110(40)	110(40)
			ft	361(131)	361(131)	361(131)
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	5.5	7.4	7.4
			lbs	12.13	16.31	16.31
Sound ²⁾	Sound Pressure		dB(A)	60	61	61
	Sound Power			77	81	81
External Dimension	Net Weight		kg	193	248.8	248.8
			lbs	425.5	548.5	548.5
	Shipping Weight		kg	209	267.8	267.8
			lbs	460.8	590.4	590.4
	Net Dimensions (WxHxD)		mm	880 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
			inch	34.65 x 66.73 x 30.12	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	948 x 1,887 x 832	1,363 x 1,887 x 832	1,363 x 1,887 x 832
			inch	37.32 x 74.29 x 32.76	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM144FXVAJR2AA	AM168HXVAJR2AA	AM192HXVAJR2AA	
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60	
Mode			-	HEAT RECOVERY	HEAT RECOVERY	
Performance	Ton		TON	12	14	16
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	144,000	168,000	192,000
		Heating ¹⁾	Btu/h	162,000	189,000	216,000
	Capacity (Rated)	Cooling	Btu/h	138,000	160,000	184,000
Heating		Btu/h	154,000	180,000	206,000	
Power	MCA		A	26.4	33.0	37.0
	MOP		A	40.0	40.0	50.0
Compressor	Type		-	SSC Scroll x 2	SSC Scroll x 2	SSC Scroll x 2
	Model Name		-	DS-GB052FAVBSG x 2	DS-GB052FAVBSG x 2	DS-GB066FAVBSG x 2
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	620.0 x 2	620.0 x 2	620.0 x 2
	Air Flow Rate		CFM	9,535.32	10,947.96	10,947.96
	External Static Pressure	Max.	mmAq	8	8	8
In Wg			0.31	0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	12.7	15.88	15.88
			Φ, inch	1/2"	5/8"	5/8"
	Gas Pipe		Φ, mm	28.58	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	22.22	22.22	28.58
			Φ, inch	7/8"	7/8"	1 1/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
Max. Height		m	110(40)	110(40)	110(40)	
		ft	361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	8.7	11	11
lbs			19.18	24.25	24.25	
Sound ²⁾	Sound Pressure		dB(A)	62	63	64
	Sound Power			83	85	86
External Dimension	Net Weight		kg	311.8	329.2	337.1
			lbs	687.4	725.8	743.2
	Shipping Weight		kg	330.8	346.2	354.1
			lbs	729.3	763.2	780.7
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
			inch	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12	50.98 x 66.73 x 30.12
	Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 832	1,363 x 1,887 x 832	1,363 x 1,887 x 832
			inch	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76	53.66 x 74.29 x 32.76
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM216JXVAJR2AA	AM240JXVAJR2AA	AM264JXVAJR2AA
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60
Mode			-	HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	18	20
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	216,000	240,000
		Heating ¹⁾	Btu/h	243,000	270,000
	Capacity (Rated)	Cooling	Btu/h	206,000	228,000
Heating		Btu/h	230,000	258,000	
Power	MCA		A	42.8	49.4
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 3	SSC Scroll x 3
	Model Name		-	DS-GB052FAVBSG x 3	DS-GB052FAVBSG x 3
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	630.0 x 1 + 620.0 x 2	630.0 x 1 + 620.0 x 2
	Air Flow Rate		CFM	7,239.78 + 9,535.32	7,239.78 + 10,947.96
	External Static Pressure	Max.	mmAq	8	8
In Wg			0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	15.88	15.88
			Φ, inch	5/8"	5/8"
	Gas Pipe		Φ, mm	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"
	Discharge Gas Pipe		Φ, mm	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
	Max. Height	m	110(40)	110(40)	
		ft	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	14.2	16.5
			lbs	31.31	36.38
Sound ²⁾	Sound Pressure		dB(A)	64	65
	Sound Power			84	86
External Dimension	Net Weight		kg	311.8 + 193	193 + 329.2
			lbs	687.4 + 425.5	425.5 + 725.8
	Shipping Weight		kg	330.8 + 209	209 + 346.2
			lbs	729.3 + 460.8	460.8 + 763.2
	Net Dimensions (WxHxD)		mm	1,295 x 1,695 x 765 + 880 x 1,695 x 765	880 x 1,695 x 765 + 1,295 x 1,695 x 765
			inch	50.98 x 66.73 x 30.12 + 34.65 x 66.73 x 30.12	34.65 x 66.73 x 30.12 + 50.98 x 66.73 x 30.12
Shipping Dimensions (WxHxD)		mm	1,363 x 1,887 x 832 + 948 x 1,887 x 832	948 x 1,887 x 832 + 1,363 x 1,887 x 832	
		inch	53.66 x 74.29 x 32.76 + 37.32 x 74.29 x 32.76	37.32 x 74.29 x 32.76 + 53.66 x 74.29 x 32.76	
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)	
Model Name			AM288JXVAJR2AA	AM312JXVAJR2AA	AM336JXVAJR2AA	
Power Supply		Φ, #, V, Hz	3,3460,60	3,3460,60	3,3460,60	
Mode			-	HEAT RECOVERY	HEAT RECOVERY	
Performance	Ton		TON	24	26	28
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	288,000	312,000	336,000
		Heating ¹⁾	Btu/h	324,000	351,000	378,000
	Capacity (Rated)	Cooling	Btu/h	276,000	298,000	320,000
Heating		Btu/h	308,000	334,000	360,000	
Power	MCA		A	52.8	59.4	66.0
	MOP		A	-	-	-
Compressor	Type		-	SSC Scroll x 4	SSC Scroll x 4	SSC Scroll x 4
	Model Name		-	DS-GB052FAVBSG x 4	DS-GB052FAVBSG x 4	DS-GB052FAVBSG x 4
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 2	(620.0 x 2) x 2	(620.0 x 2) x 2
	Air Flow Rate		CFM	9,535.32 x 2	9,535.32 + 10,947.96	10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8	8
In Wg			0.31	0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05	19.05
			Φ, inch	3/4"	3/4"	3/4"
	Gas Pipe		Φ, mm	34.92	34.92	34.92
			Φ, inch	1 3/8"	1 3/8"	1 3/8"
	Discharge Gas Pipe		Φ, mm	28.58	28.58	28.58
			Φ, inch	1 1/8"	1 1/8"	1 1/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
Max. Height		m	110(40)	110(40)	110(40)	
		ft	361(131)	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	17.4	19.7	22
			lbs	38.36	43.43	48.5
Sound ²⁾	Sound Pressure		dB(A)	65	66	66
	Sound Power			86	87	88
External Dimension	Net Weight		kg	311.8 x 2	311.8 + 329.2	329.2 x 2
			lbs	687.4 x 2	687.4 + 725.8	725.8 x 2
	Shipping Weight		kg	320.8 x 2	330.8 + 346.2	346.2 x 2
			lbs	729.3 x 2	729.3 + 763.2	763.2 x 2
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2
			inch	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2
			inch	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM360JXVAJR2AA	AM384JXVAJR2AA	AM408JXVAJR2AA
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60
Mode			-	HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	30	32
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	360,000	384,000
		Heating ¹⁾	Btu/h	405,000	432,000
	Capacity (Rated)	Cooling	Btu/h	344,000	366,000
Heating		Btu/h	386,000	410,000	
Power	MCA		A	70.0	74.0
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 4	SSC Scroll x 4
	Model Name		-	DS-GB052FAVBSG x 2 + DS-GB066FAVBSG x 2	DS-GB066FAVBSG x 4
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 2	(620.0 x 2) x 2
	Air Flow Rate		CFM	10,947.96 x 2	10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8
In Wg			0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05
			Φ, inch	3/4"	3/4"
	Gas Pipe		Φ, mm	41.28	41.28
			Φ, inch	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	34.92	34.92
			Φ, inch	1 3/8"	1 3/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
Max. Height		m	110(40)	110(40)	
		ft	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	22	25.2
Sound ²⁾	Sound Pressure		dB(A)	66	67
	Sound Power		dB(A)	87	88
External Dimension	Net Weight		kg	329.2 + 337.1	311.8 + 193 + 337.1
			lbs	725.8 + 743.2	687.4 + 425.5 + 743.2
	Shipping Weight		kg	346.2 + 354.1	330.8 + 209 + 354.1
			lbs	763.2 + 780.7	729.3 + 460.8 + 780.7
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 2 + 880 x 1,695 x 765
			inch	(50.98 x 66.73 x 30.12) x 2	(50.98 x 66.73 x 30.12) x 2 + 34.65 x 66.73 x 30.12
Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2 + 948 x 1,887 x 832	
		inch	(53.66 x 74.29 x 32.76) x 2	(53.66 x 74.29 x 32.76) x 2 + 37.32 x 74.29 x 32.76	
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (460V)

Type			DVMS(NEW)	DVMS(NEW)	DVMS(NEW)
Model Name			AM432JXVAJR2AA	AM456JXVAJR2AA	AM480JXVAJR2AA
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60
Mode			-	HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	36	38
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	432,000	456,000
		Heating ¹⁾	Btu/h	486,000	513,000
	Capacity (Rated)	Cooling	Btu/h	416,000	436,000
Heating		Btu/h	460,000	490,000	
Power	MCA		A	79.2	87.7
	MOP		A	-	-
Compressor	Type		-	SSC Scroll x 6	SSC Scroll x 5
	Model Name		-	DS-GB052FAVBSG x 6	DS-GB066FAVBSG x 1 + DS-GB052FAVBSG x 4
	Oil	Type	-	PVE	PVE
Fan	Type		-	Propeller	Propeller
	Output x n		W	(620.0 x 2) x 3	(620.0 x 2) x 3
	Air Flow Rate		CFM	9,535.32 x 3	9,182.16 + 10,947.96 x 2
	External Static Pressure	Max.	mmAq	8	8
In Wg			0.31	0.31	
Piping Connections	Liquid Pipe		Φ, mm	19.05	19.05
			Φ, inch	3/4"	3/4"
	Gas Pipe		Φ, mm	41.28	41.28
			Φ, inch	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	34.92	34.92
			Φ, inch	1 3/8"	1 3/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)
			ft	656(722)	656(722)
Max. Height		m	110(40)	110(40)	
		ft	361(131)	361(131)	
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	26.1	29.4
Sound ²⁾	Sound Pressure		dB(A)	67	67
	Sound Power			88	89
External Dimension	Net Weight		kg	311.8 x 3	311.8 + 329.2 x 2
			lbs	687.4 x 3	687.4 + 725.8 x 2
	Shipping Weight		kg	330.8 x 3	330.8 + 346.2 x 2
			lbs	729.3 x 3	729.3 + 763.2 x 2
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3	(1,295 x 1,695 x 765) x 3
			inch	(50.98 x 66.73 x 30.12) x 3	(50.98 x 66.73 x 30.12) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3	(1,363 x 1,887 x 832) x 3
			inch	(53.66 x 74.29 x 32.76) x 3	(53.66 x 74.29 x 32.76) x 3
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR (460V)

Type			DVMS(NEW)	DVMS(NEW)
Model Name			AM504JXVAJR2AA	AM528JXVAJR2AA
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60
Mode			HEAT RECOVERY	HEAT RECOVERY
Performance	Ton		TON	42
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	504,000
		Heating ¹⁾	Btu/h	567,000
	Capacity (Rated)	Cooling	Btu/h	480,000
Heating		Btu/h	536,000	
Power	MCA		A	99.0
	MOP		A	-
Compressor	Type		-	SSC Scroll x 6
	Model Name		-	DS-GB052FAVBSG x 6
	Oil	Type	-	PVE
Fan	Type		-	Propeller
	Output x n		W	(620.0 x 2) x 3
	Air Flow Rate		CFM	10,947.96 x 3
	External Static Pressure	Max.	mmAq	8
			In Wg	0.31
Piping Connections	Liquid Pipe		Φ, mm	19.05
			Φ, inch	3/4"
	Gas Pipe		Φ, mm	41.28
			Φ, inch	1 5/8"
	Discharge Gas Pipe		Φ, mm	34.92
			Φ, inch	1 3/8"
	Installation Limitation	Max. Length	m	200(220)
			ft	656(722)
		Max. Height	m	110(40)
			ft	361(131)
Refrigerant	Type		-	R410A
	Factory Charging		kg	33
			lbs	72.75
Sound ²⁾	Sound Pressure		dB(A)	68
	Sound Power			90
External Dimension	Net Weight		kg	329.2 x 3
			lbs	725.8 x 3
	Shipping Weight		kg	346.2 x 3
			lbs	763.2 x 3
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3
			inch	(50.98 x 66.73 x 30.12) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3
			inch	(53.66 x 74.29 x 32.76) x 3
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

3. Specifications

DVM S HR 18 TON(460V)

Type			DVM S(NEW)	DVM S(NEW)	DVM S(NEW)	
Model Name			AM216KXVGJR/AA	AM408KXVGJR2AA	AM432KXVGJR2AA	
Power Supply		Φ, #, V, Hz	3,3,460,60	3,3,460,60	3,3,460,60	
Mode			HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	
Performance	Ton		TON	18	34	36
	Capacity (Nominal)	Cooling ¹⁾	Btu/h	216,000	408,000	432,000
		Heating ¹⁾	Btu/h	243,000	459,000	486,000
	Capacity (Rated)	Cooling	Btu/h	206,000	390,000	416,000
Heating		Btu/h	230,000	436,000	460,000	
Power	MCA		A	42.8	79.8	85.6
	MOP		A	60.0	-	-
Compressor	Type		-	SSC Scroll x 2	(SSC Scroll x 2) x 2	(SSC Scroll x 2) x 2
	Model Name		-	DS-GB066FAVB x 2	DS-GB066FAVB SG x 2 + DS-GB066FAVB x 2	(DS-GB066FAVB x 2) x 2
	Oil	Type	-	PVE	PVE	PVE
Fan	Type		-	Propeller	Propeller	Propeller
	Output x n		W	620.0 x 2	(620.0 x 2) x 2	(620.0 x 2) x 2
	Air Flow Rate		CFM	12,007.44	10,947.96 + 12,007.44	12,007.44 x 2
	External Static Pressure	Max.	mmAq	8	8	8
			In Wg	0.31	0.31	0.31
Piping Connections	Liquid Pipe		Φ, mm	15.88	19.05	19.05
			Φ, inch	5/8"	3/4"	3/4"
	Gas Pipe		Φ, mm	28.58	41.28	41.28
			Φ, inch	1 1/8"	1 5/8"	1 5/8"
	Discharge Gas Pipe		Φ, mm	28.58	34.92	34.92
			Φ, inch	1 1/8"	1 3/8"	1 3/8"
	Installation Limitation	Max. Length	m	200(220)	200(220)	200(220)
			ft	656(722)	656(722)	656(722)
		Max. Height	m	110(40)	110(40)	110(40)
			ft	361(131)	361(131)	361(131)
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	14.0	25.0	28.0
lbs			30.86	55.12	61.73	
Sound ²⁾	Sound Pressure		dB(A)	66	68	69
	Sound Power			89	91	92
External Dimension	Net Weight		kg	355.0	333.0 + 355.0	355.0 x 2
			lbs	782.64	734.14 + 782.64	782.64 x 2
	Shipping Weight		kg	377.0	350.0 + 377.0	377.0 x 2
			lbs	831.14	771.62 + 831.14	831.14 x 2
	Net Dimensions (WxHxD)		mm	1,295 x 1,795 x 765	1,295 x 1,695 x 765 + 1,295 x 1,795 x 765	(1,295 x 1,795 x 765) x 2
			inch	50.98 x 70.67 x 30.12	50.98 x 66.73 x 30.12 + 50.98 x 70.67 x 30.12	(50.98 x 70.67 x 30.12) x 2
Shipping Dimensions (WxHxD)		mm	1,363 x 1,987 x 832	1,363 x 1,887 x 832 + 1,363 x 1,987 x 832	(1,363 x 1,987 x 832) x 2	
		inch	53.66 x 78.23 x 32.76	53.66 x 74.29 x 32.76 + 53.66 x 78.23 x 32.76	(53.66 x 78.23 x 32.76) x 2	
Operating Temp. Range	Cooling		°F	23.0 ~ 120.0	23.0 ~ 120.0	23.0 ~ 120.0
	Heating		°F	-13.0 ~ 75.0	-13.0 ~ 75.0	-13.0 ~ 75.0

1) Nominal Capacities are based on (Equivalent refrigerant piping: 25ft, Level differences: 0ft); -

Cooling : Indoor temperature 80°F DB/67°F WB, Outdoor temperature 95°F DB/75°F WB -

Heating : Indoor temperature 70°F DB/60°F WB, Outdoor temperature 47°F DB/43°F WB

2) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

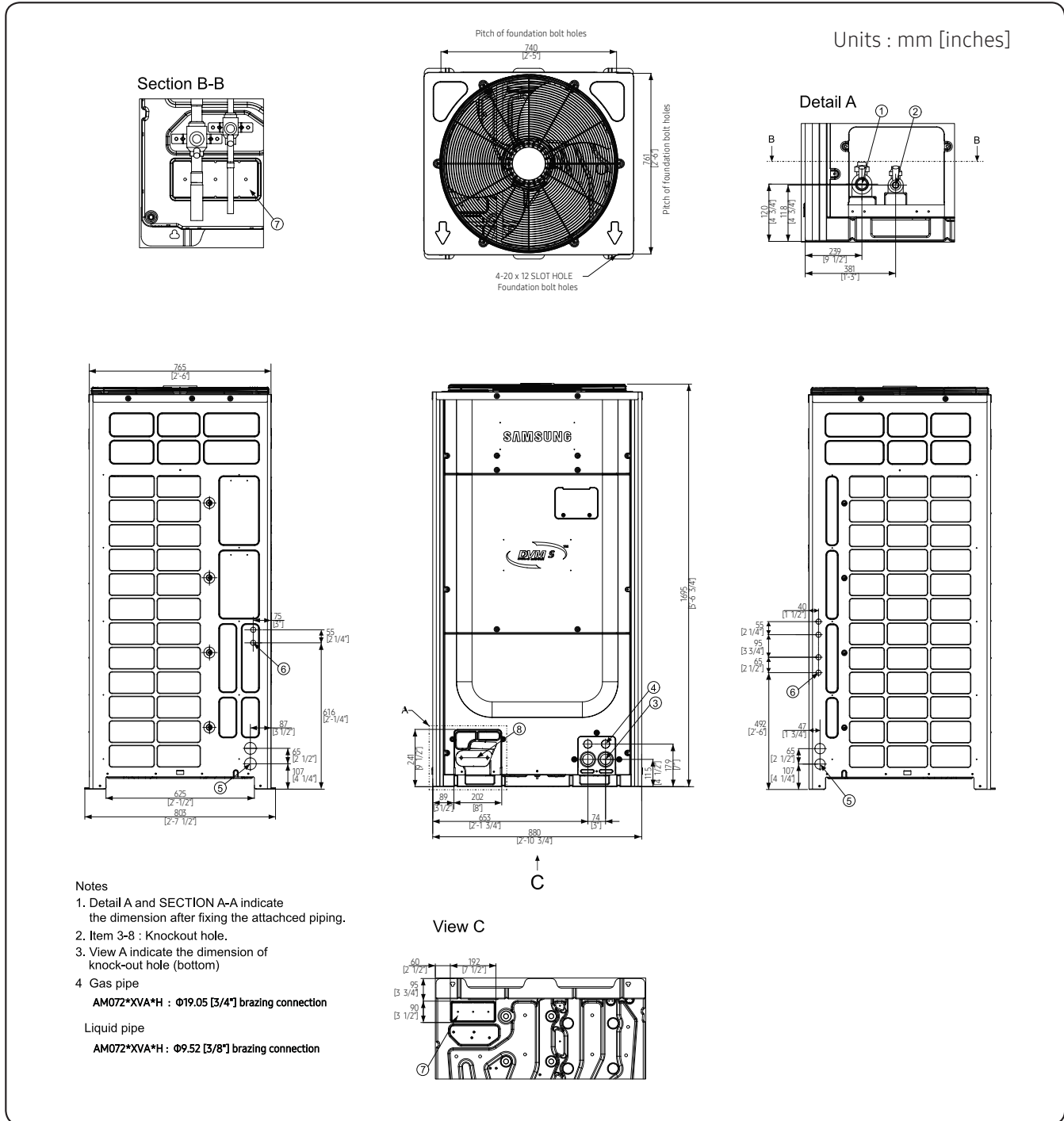
3) Specifications may be subject to change without prior notice.

4) Please contact your local Samsung representative for further details if the project requires you to design the project with a connection ratio greater than 130%.

4. Dimensional Drawing

HEAT PUMP

• AM072*XVA*H*AA

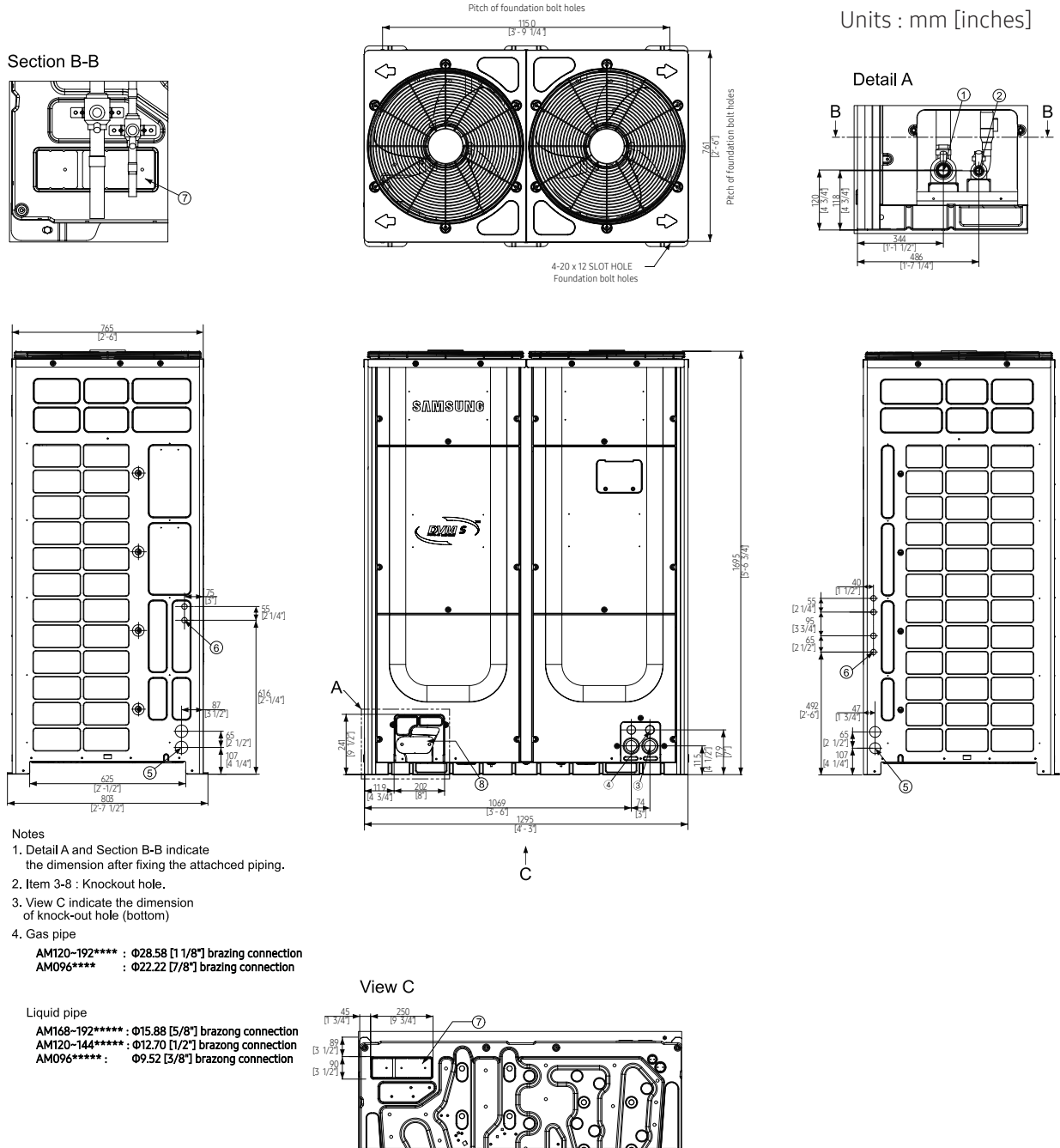


NO	Table of descriptions		NO	Table of descriptions	
1	Gas Ref. pipe	See note 4.	5	Power wiring conduit	$\Phi 44$
2	Liquid Ref. pipe	See note 4.	6	Communication wiring conduit	$\Phi 22$
3	Power wiring conduit	$\Phi 44$	7	Knock-out Hole for Ref. Piping (bottom)	
4	Communication wiring conduit	$\Phi 34$	8	Knock-out Hole for Ref. Piping (front)	

4. Dimensional Drawing

HEAT PUMP

• AM096~192*XVA*H*AA



NO	Table of descriptions		NO	Table of descriptions	
1	Gas Ref. pipe	See note 4.	5	Power wiring conduit	$\varnothing 44$
2	Liquid Ref. pipe	See note 4.	6	Communication wiring conduit	$\varnothing 22$
3	Power wiring conduit	$\varnothing 44$	7	Knock-out Hole for Ref. Piping (bottom)	
4	Communication wiring conduit	$\varnothing 34$	8	Knock-out Hole for Ref. Piping (front)	

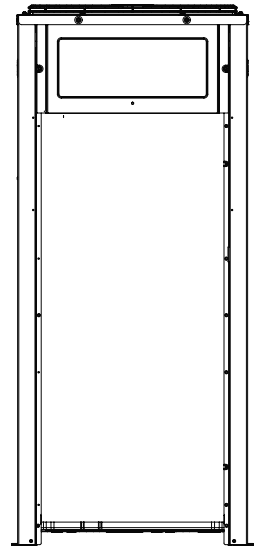
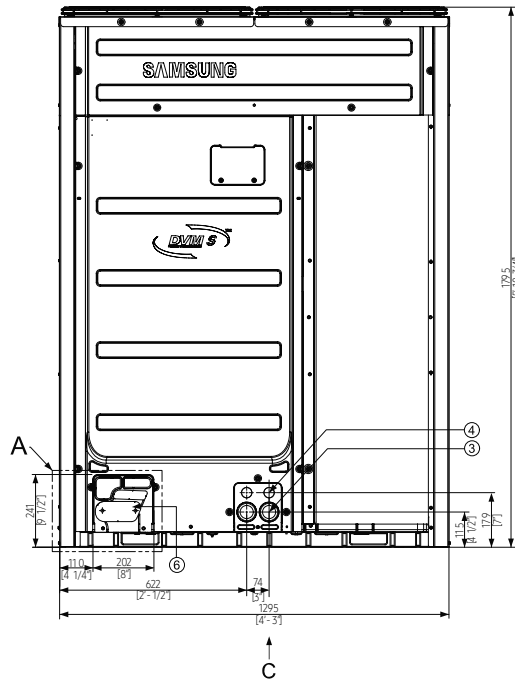
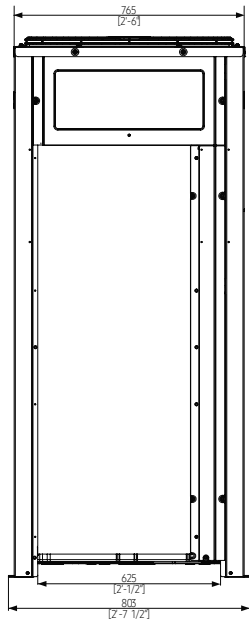
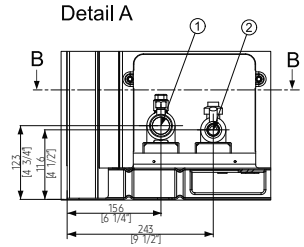
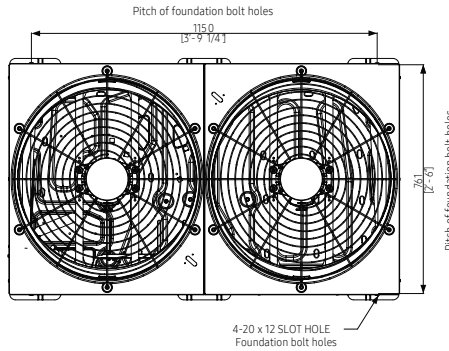
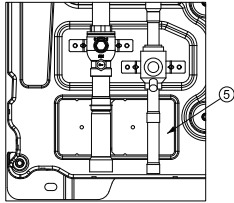
4. Dimensional Drawing

HEAT PUMP

• AM216KXVGJH/AA

Units : mm [inches]

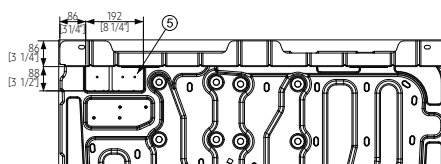
Section B-B



Notes

1. Detail A and Section B-B indicate the dimension after fixing the attached piping.
2. Item 3-6 : Knockout hole.
3. View C indicate the dimension of knock-out hole (bottom)
- 4 Gas pipe
AM216KXVGJH : $\Phi 28.58$ [1 1/8"] brazing connection
Liquid pipe
AM216KXVGJH : $\Phi 15.88$ [5/8"] brazing connection

View C



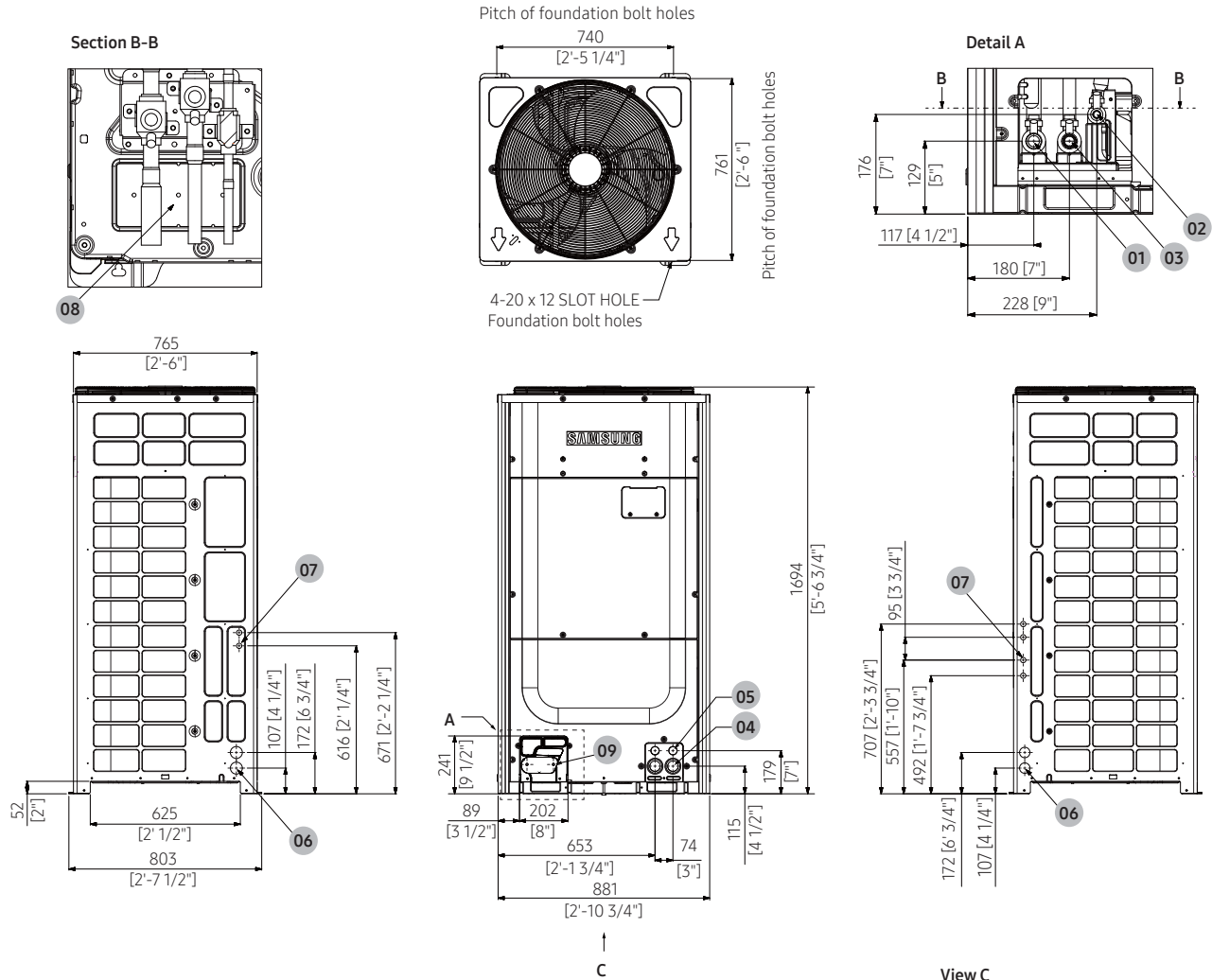
NO	Table of descriptions		NO	Table of descriptions	
1	Gas Ref. pipe	See note 4.	4	Communication wiring conduit	$\Phi 34$
2	Liquid Ref. pipe	See note 4.	5	Knock-out Hole for Ref. Piping (bottom)	
3	Power wiring conduit	$\Phi 44$	6	Knock-out Hole for Ref. Piping (front)	

4. Dimensional Drawing

HEAT RECOVERY

• AM072*XVA*R*AA

Units : mm [inches]



Notes

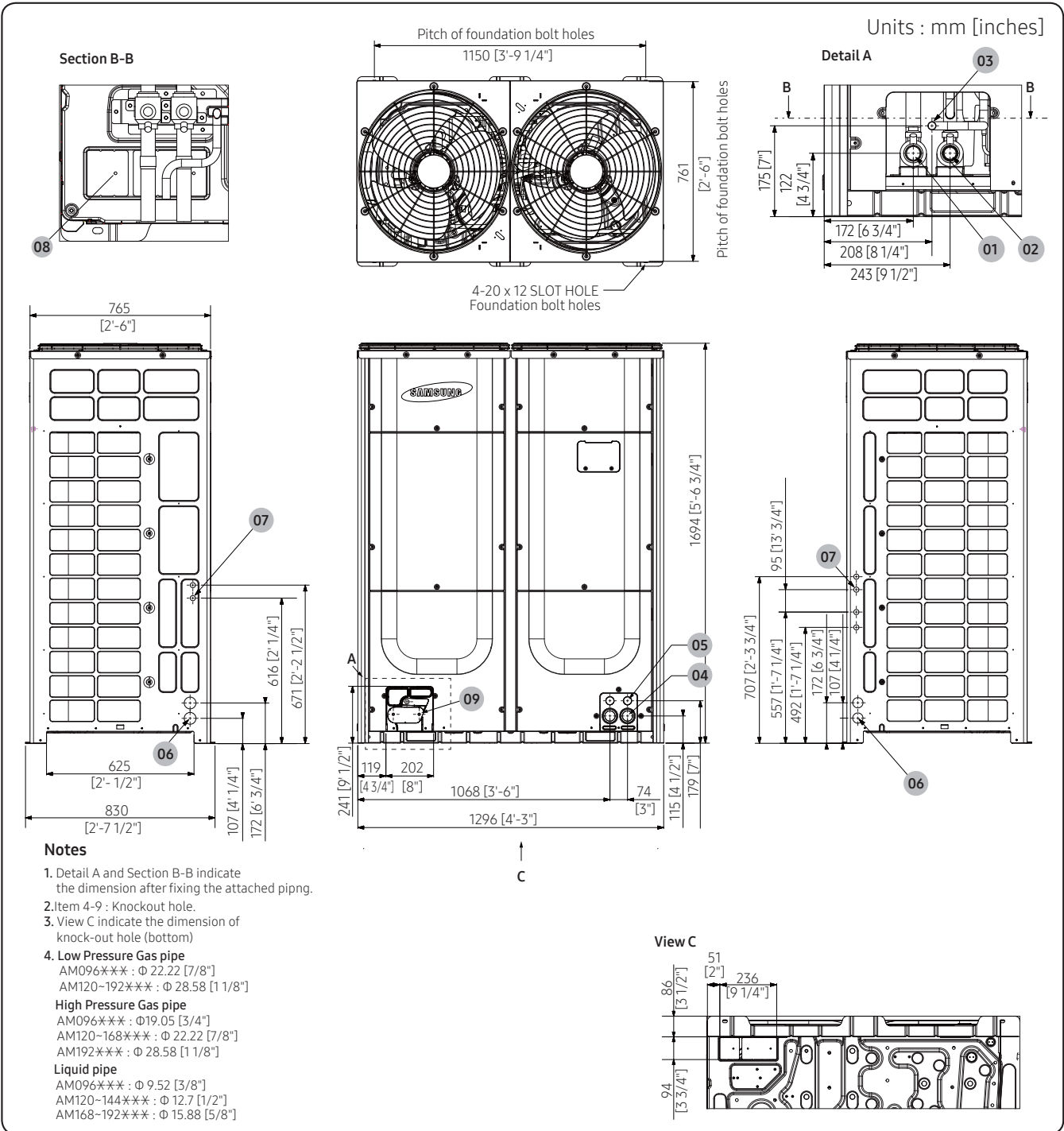
1. Detail A and Section B-B indicate the dimension after fixing the attached piping.
2. Item 4-9 : Knockout hole.
3. View C indicate the dimension of knockout hole (bottom)
4. **Low Pressure Gas pipe**
AM072*** : Φ 19.05 [3/4"]
- High Pressure Gas pipe**
AM072*** : Φ 15.88 [5/8"]
- Liquid pipe**
AM072*** : Φ 9.52 [3/8"]

NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Low Pressure Gas Ref. pipe	See note 4.	6	Power wiring conduit	Φ 44
2	High Pressure Gas Ref. pipe	See note 4.	7	Communication wiring conduit	Φ 22
3	Liquid Ref. pipe	See note 4.	8	Knock-out Hole for Ref. Piping (bottom)	
4	Power wiring conduit	Φ 44	9	Knock-out Hole for Ref. Piping (front)	
5	Communication wiring conduit	Φ 34			

4. Dimensional Drawing

HEAT RECOVERY

• AM096~192*XVA*R*AA



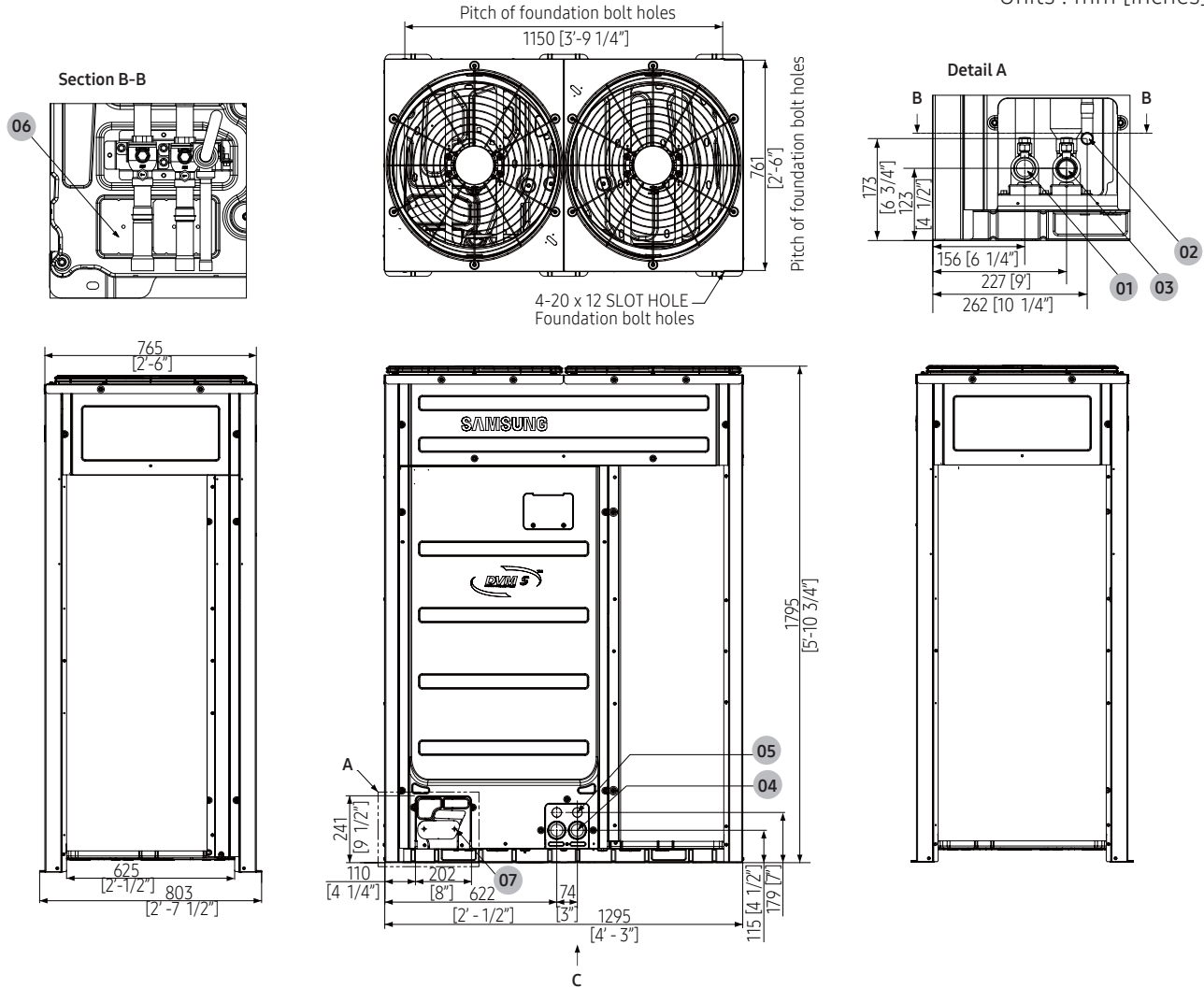
NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Low Pressure Gas Ref. pipe	See note 4.	6	Power wiring conduit	Φ 44
2	High Pressure Gas Ref. pipe	See note 4.	7	Communication wiring conduit	Φ 22
3	Liquid Ref. pipe	See note 4.	8	Knock-out Hole for Ref. Piping (bottom)	
4	Power wiring conduit	Φ 44	9	Knock-out Hole for Ref. Piping (front)	
5	Communication wiring conduit	Φ 34			

4. Dimensional Drawing

HEAT RECOVERY

• AM216KXVGJR/AA

Units : mm [inches]



Notes

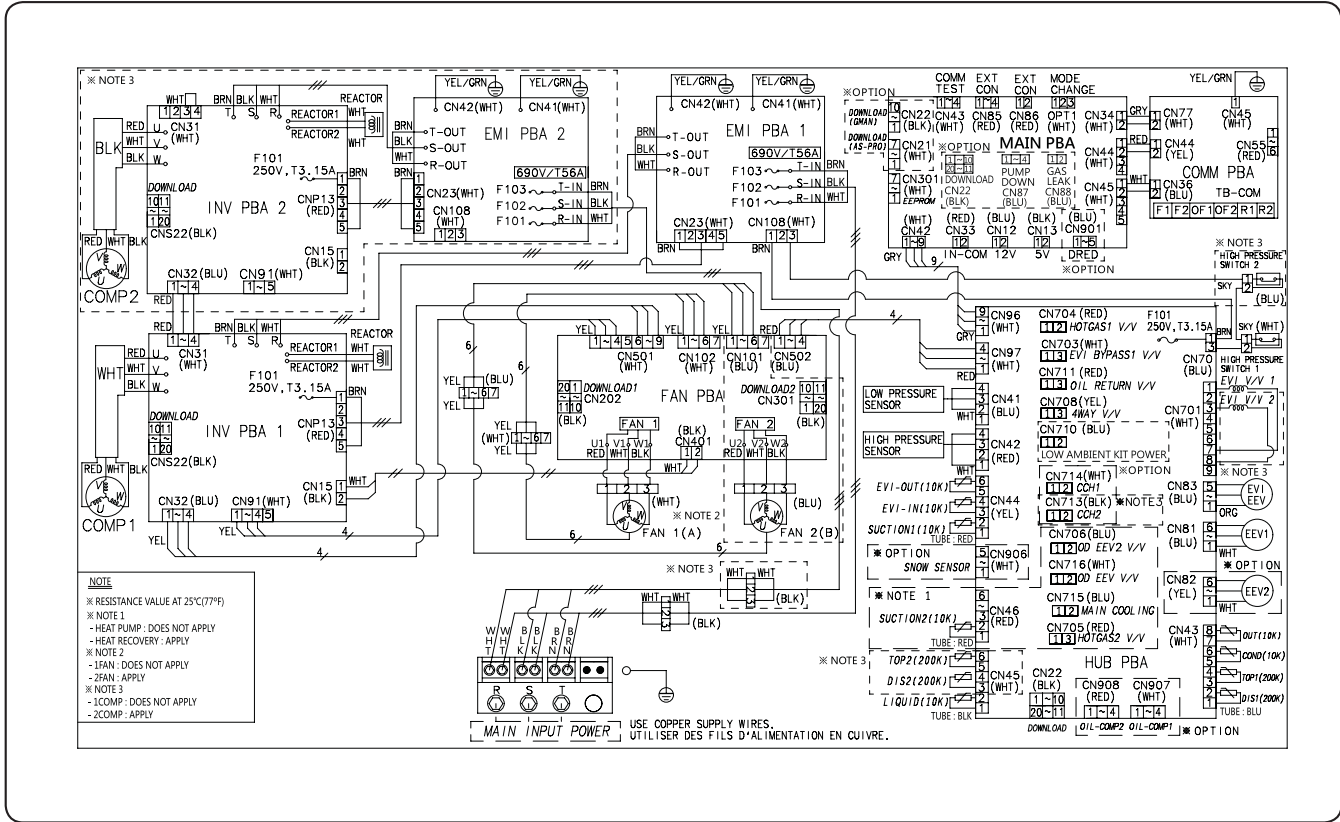
1. Detail A and Section B-B indicate the dimension after fixing the attached piping.
2. Item 3-6 : Knockout hole.
3. View C indicate the dimension of knock-out hole (bottom)
4. Low Pressure Gas pipe
AM216KXVGJR : $\Phi 28.58$ [1 1/8"] brazing connection
High Pressure Gas pipe
AM216KXVGJR : $\Phi 28.58$ [1 1/8"] brazing connection
Liquid pipe
AM216KXVGJR : $\Phi 15.88$ [5/8"] brazing connection

NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Low Pressure Gas Ref. pipe	See note 4.	6	Power wiring conduit	$\Phi 44$
2	High Pressure Gas Ref. pipe	See note 4.	7	Communication wiring conduit	$\Phi 22$
3	Liquid Ref. pipe	See note 4.	8	Knock-out Hole for Ref. Piping (bottom)	
4	Power wiring conduit	$\Phi 44$	9	Knock-out Hole for Ref. Piping (front)	
5	Communication wiring conduit	$\Phi 34$			

5. Electrical Wiring Diagram

Outdoor unit

- AM168/192HXVAFH, AM168/192HXVAFR



INV PBA1	Printed circuit board(inverter1)	EEV1	electronic expansion valve 1	LIQUID(10K)	Thermistor LIQUID(10K)
INV PBA2	Printed circuit board(inverter2)	EEV2	electronic expansion valve 2	HOTGAS1 V/V	Solenoid valve(HOTGAS1)
EMI PBA1	Printed circuit board(emi1)	EVI-OUT(10K)	Thermistor (Enhanced Vapor Injection_out)	EVI BYPASS V/V	Solenoid valve(EVI BYPASS)
EMI PBA2	Printed circuit board(emi1)	EVI-IN(10K)	Thermistor (Enhanced Vapor Injection_in)	RETURN V/V	Solenoid valve(RETURN)
FAN PBA	Printed circuit board(fan motor)	SUCTION1(10K)	Thermistor (SUCTION1)	4WAY V/V	Solenoid valve(4WAY)
MAIN PBA	Printed circuit board(main)	SUCTION2(10K)	Thermistor (SUCTION2)	CCH1	Crank Case Heater (Compressor1)
HUB PBA	Printed circuit board(hub)	SNOW SENSOR	SNOW SENSOR	CCH2	Crank Case Heater (Compressor1)
COMM PBA	Printed circuit board(communication)	OIL-COMP1	Oil-Sensor(Compressor1)	MAIN COOLING	Solenoid valve(Main cooling)
COMP1	Motor (compressor1)	OIL-COMP2	Oil-Sensor(Compressor2)	HOTGAS2 V/V	Solenoid valve(HOTGAS2)
COMP2	Motor (compressor2)	OUT(10K)	Thermistor (Air)	OD EEV V/V	Solenoid valve(OD EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (COND.)	F101	FUSE(inverter PBA)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Copressor2 TOP)	690V/T56A	FUSE(EMI PBA)
EVI V/V 1	Solenoid valve(Enhanced Vapor Injection_1)	DIS1(200K)	Thermistor DIS1(200K)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V 2	Solenoid valve(Enhanced Vapor Injection_2)	DIS2(200K)	Thermistor DIS2(200K)	EXT CON	Connector (Output EXT CON)
EVI EEV	electronic expansion valve(EVI)	LIQUID(10K)	Thermistor LIQUID(10K)	ERROR/COMP EXT	Connector (Output ERROR/COMP EXT CON)

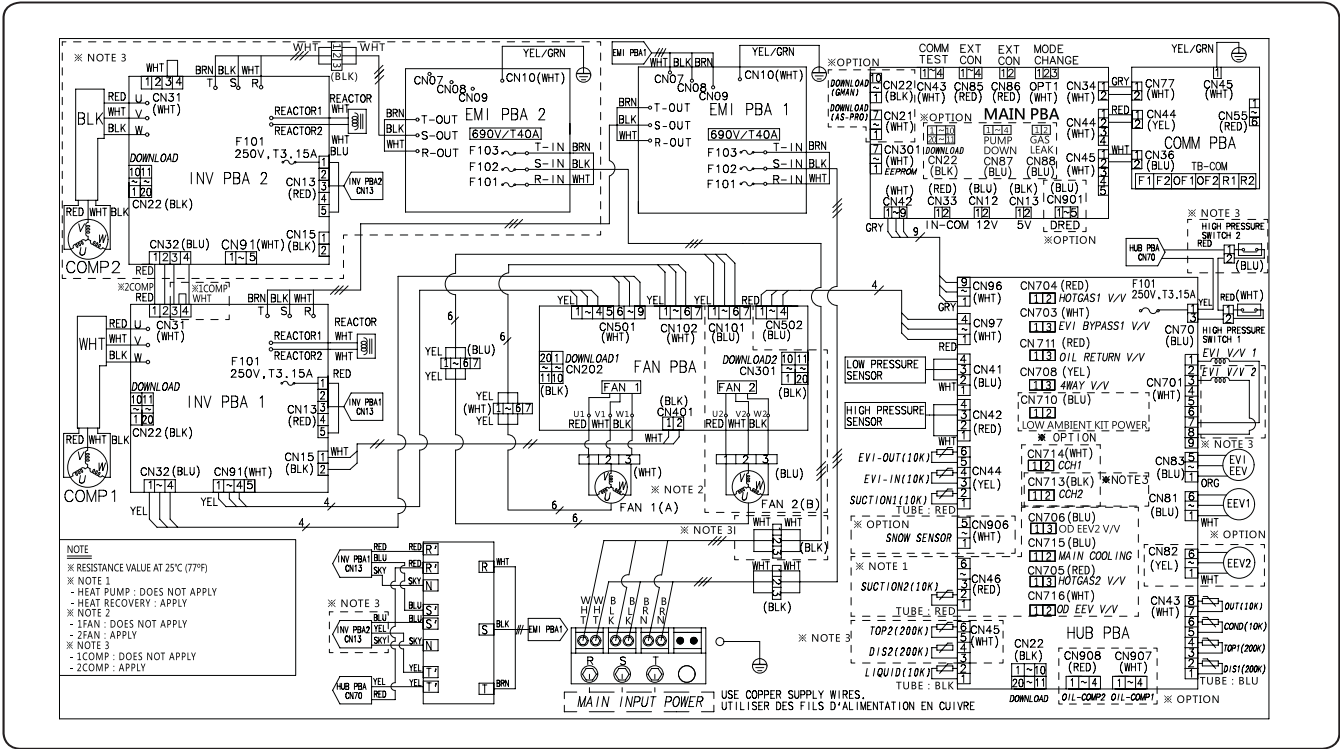
NOTES

1. This wiring diagram applies only to the outdoor unit.
2. Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
3. When operating, don't shortcircuit the protection device (High Pressure switch)
4. For connection wiring indoor-outdoor transmission F1-F2.
5. Ⓢ Protective earth(SCREW), □□□□: connector, \neq : The quantity

5. Electrical Wiring Diagram

Outdoor unit

- AM168/192HXVAJH, AM168/192HXVAJR



INV PBA1	Printed circuit board(inverter1)	EEV1	electronic expansion valve 1	LIQUID(10K)	Thermistor LIQUID(10K)
INV PBA2	Printed circuit board(inverter2)	EEV2	electronic expansion valve 2	HOTGAS1 V/V	Solenoid valve(HOTGAS1)
EMI PBA1	Printed circuit board(emi1)	EVI-OUT(10K)	Thermistor (Enhanced Vapor Injection_out)	EVI BYPASS V/V	Solenoid valve(EVI BYPASS)
EMI PBA2	Printed circuit board(emi1)	EVI-IN(10K)	Thermistor (Enhanced Vapor Injection_in)	RETURN V/V	Solenoid valve(RETURN)
FAN PBA	Printed circuit board(fan motor)	SUCTION1(10K)	Thermistor (SUCTION1)	4WAY V/V	Solenoid valve(4WAY)
MAIN PBA	Printed circuit board(main)	SUCTION2(10K)	Thermistor (SUCTION2)	CCH1	Crank Case Heater (Compressor1)
HUB PBA	Printed circuit board(hub)	SNOW SENSOR	SNOW SENSOR	CCH2	Crank Case Heater (Compressor1)
COMM PBA	Printed circuit board(communication)	OIL-COMP1	Oil-Sensor(Compressor1)	MAIN COOLING	Solenoid valve(Main cooling)
COMP1	Motor (compressor1)	OIL-COMP2	Oil-Sensor(Compressor2)	HOTGAS2 V/V	Solenoid valve(HOTGAS2)
COMP2	Motor (compressor2)	OUT(10K)	Thermistor (Air)	OD EEV V/V	Solenoid valve(OD EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (COND.)	F101	FUSE(inverter PBA)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Copressor2 TOP)	690V/T40A	FUSE(EMI PBA)
EVI V/V 1	Solenoid valve(Enhanced Vapor Injection_1)	DIS1(200K)	Thermistor DIS1(200K)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V 2	Solenoid valve(Enhanced Vapor Injection_2)	DIS2(200K)	Thermistor DIS2(200K)	EXT CON	Connector (Output EXT CON)
EVI EEV	electronic expansion valve(EVI)	LIQUID(10K)	Thermistor LIQUID(10K)	ERROR/COMP EXT	Connector (Output ERROR/COMP EXT CON)

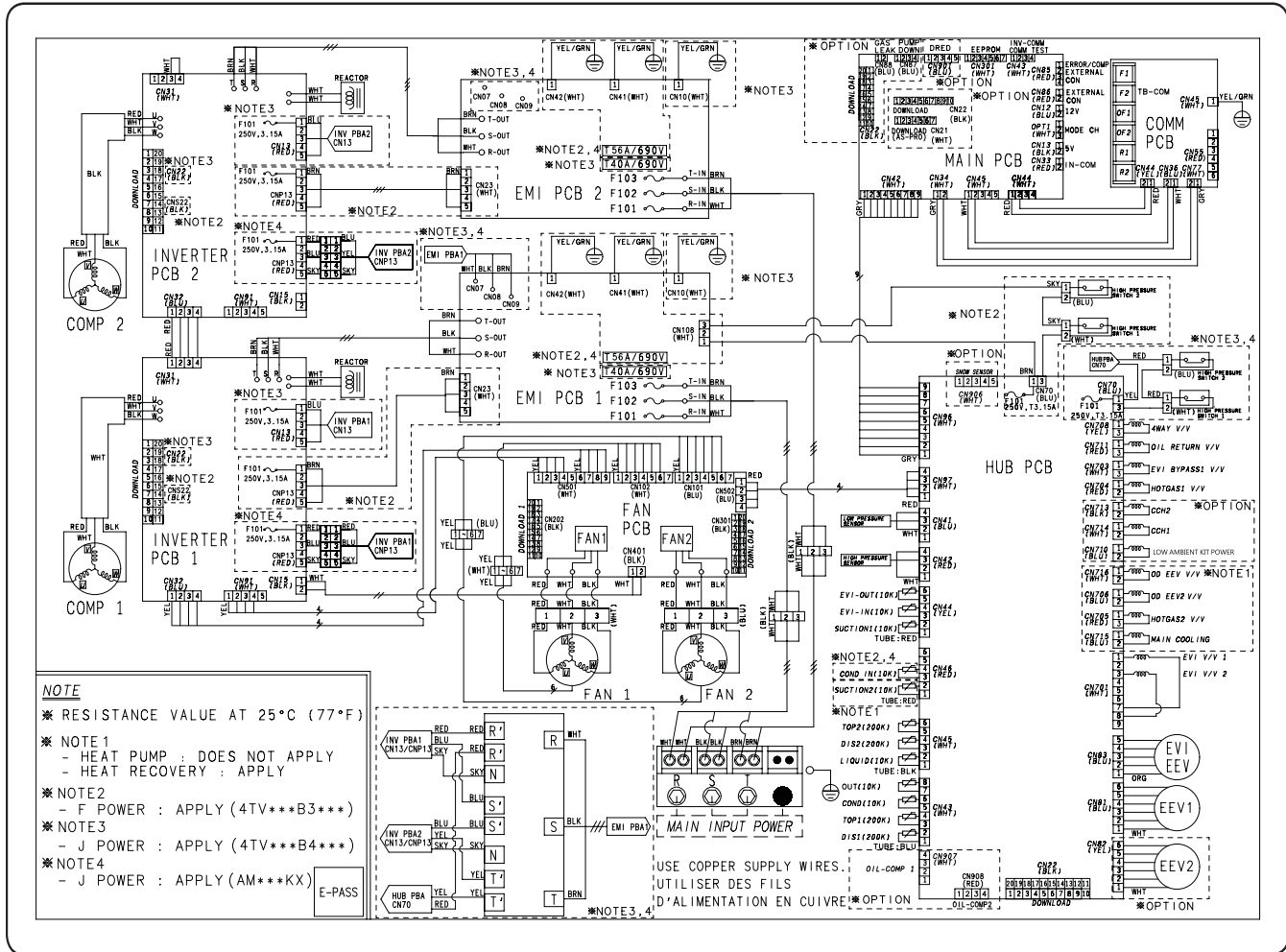
NOTES

1. This wiring diagram applies only to the outdoor unit.
2. Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skylblue
3. When operating, don't shortcircuit the protection device (High Pressure switch)
4. For connection wiring indoor-outdoor transmission F1-F2.
5. Protective earth(SCREW), : connector, : The quantity

5. Electrical Wiring Diagram

Outdoor unit

- AM216KXVGJH/AA, AM216KXVGJR/AA



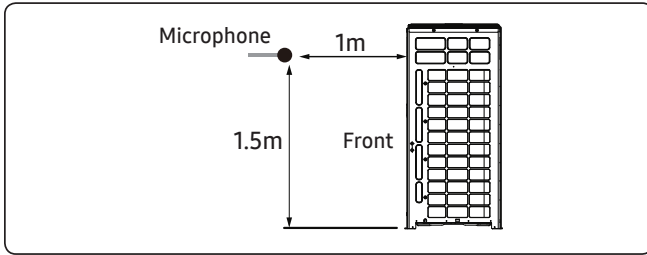
INV PCB1	Printed circuit board(inverter1)	EEV1	electronic expansion valve 1	LIQUID(10K)	Thermistor LIQUID(10K)
INV PCB2	Printed circuit board(inverter2)	EEV2	electronic expansion valve 2	HOTGAS1 V/V	Solenoid valve(HOTGAS1)
EMI PCB1	Printed circuit board(emi1)	EVI-OUT(10K)	Thermistor (Enhanced Vapor Injection_out)	EVI BYPASS V/V	Solenoid valve(EVI BYPASS)
EMI PCB2	Printed circuit board(emi1)	EVI-IN(10K)	Thermistor (Enhanced Vapor Injection_in)	RETURN V/V	Solenoid valve(RETURN)
FAN PCB	Printed circuit board(fan motor)	SUCTION1(10K)	Thermistor (SUCTION1)	4WAY V/V	Solenoid valve(4WAY)
MAIN PCB	Printed circuit board(main)	SUCTION2(10K)	Thermistor (SUCTION2)	CCH1	Crank Case Heater (Compressor1)
HUB PCB	Printed circuit board(hub)	SNOW SENSOR	SNOW SENSOR	CCH2	Crank Case Heater (Compressor1)
COMM PCB	Printed circuit board(communication)	OIL-COMP1	Oil-Sensor(Compressor1)	MAIN COOLING	Solenoid valve(Main cooling)
COMP1	Motor (compressor1)	OIL-COMP2	Oil-Sensor(Compressor2)	HOTGAS2 V/V	Solenoid valve(HOTGAS2)
COMP2	Motor (compressor2)	OUT(10K)	Thermistor (Air)	OD EEV V/V	Solenoid valve(OD EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (COND.)	F101	FUSE(inverter PCB)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Copressor2 TOP)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V 1	Solenoid valve(Enhanced Vapor Injection_1)	DIS1(200K)	Thermistor DIS1(200K)	EXT CON	Connector (Output EXT CON)
EVI V/V 2	Solenoid valve(Enhanced Vapor Injection_2)	DIS2(200K)	Thermistor DIS2(200K)	ERROR/COMP EXT	Connector (Output ERROR/COMP EXT CON)
EVI EEV	electronic expansion valve(EVI)	LIQUID(10K)	Thermistor LIQUID(10K)		

NOTES

1. This wiring diagram applies only to the outdoor unit.
2. Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
3. When operating, don't shortcircuit the protection device (High Pressure switch)
4. For connection wiring indoor-outdoor transmission F1-F2.
5. Protective earth(SCREW), : connector, : The quantity

6. Sound Data

Sound Pressure Level

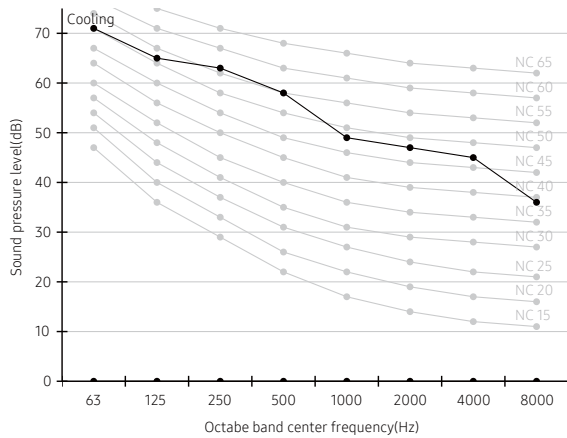


Unit: dB(A)

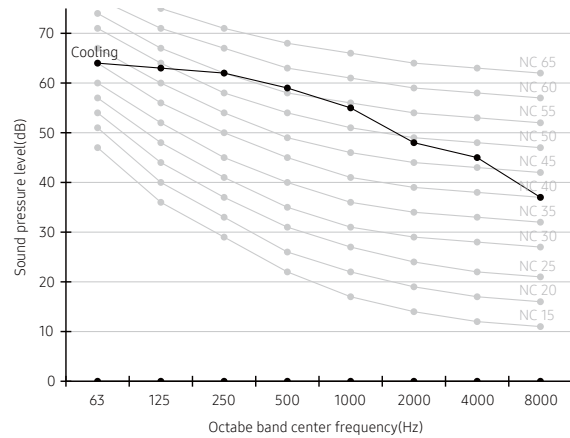
Model	Cooling
AM072FXVA*****	60
AM096FXVA*****	61
AM120FXVA*****	61
AM144FXVA*****	62

• NC Curve

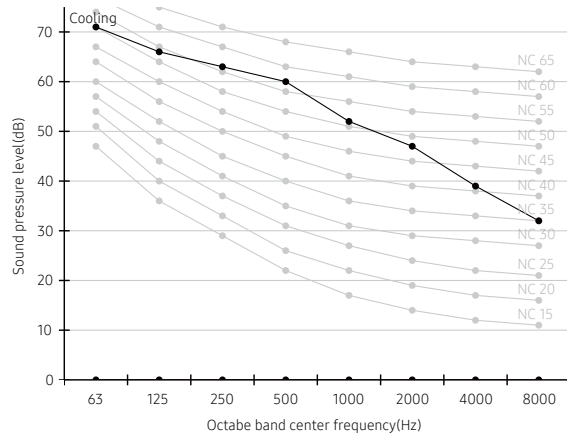
1) AM072FXVA*****



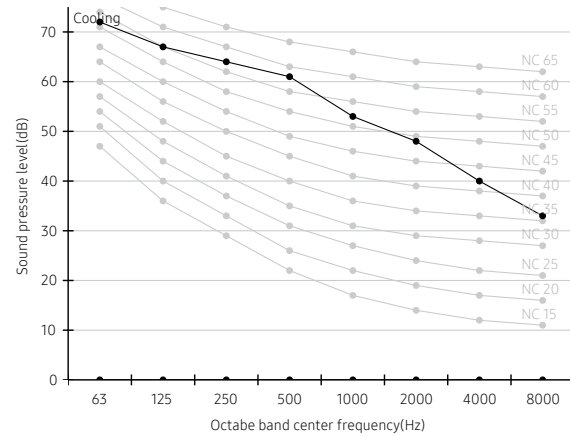
2) AM096FXVA*****



3) AM120FXVA*****



4) AM144FXVA*****

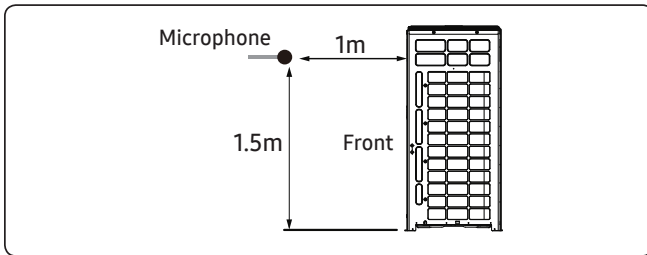


NOTE

- Specifications may be subject to change without prior notice.
 - Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20μPa

6. Sound Data

Sound Pressure Level

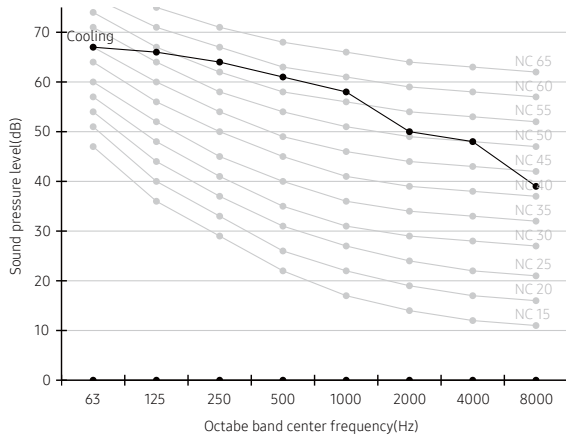


Unit: dB(A)

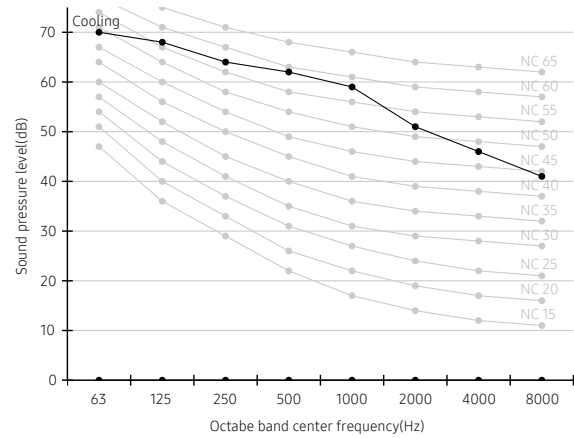
Model	Cooling
AM168HXVA*****	63
AM192HXVA*****	64
AM216KXVG*****	66

- NC Curve

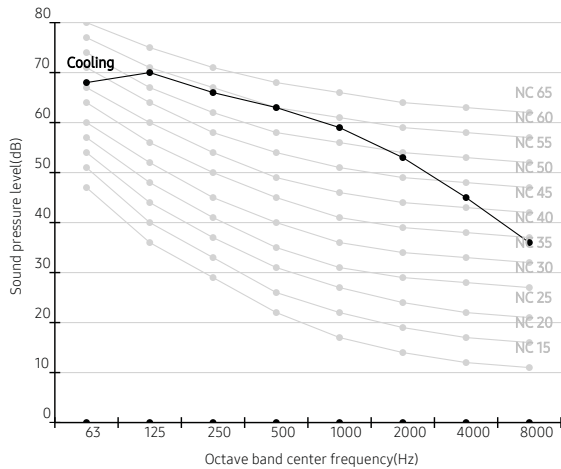
1) AM168HXVA*****



2) AM192HXVA*****



3) AM216KXVG*****



NOTE

- Specifications may be subject to change without prior notice.
 - Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20μPa

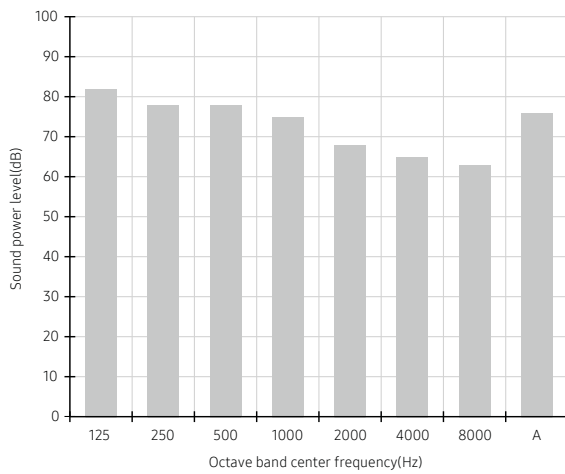
6. Sound Data

Sound Power Level

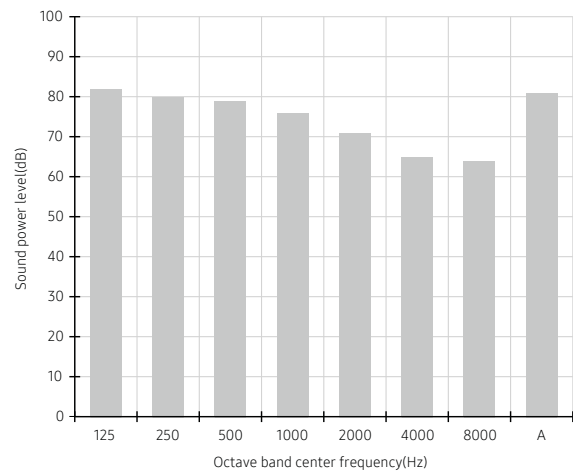
Unit: dB(A)

Model	Power
AM072FXVA*****	77
AM096FXVA*****	81
AM120FXVA*****	81
AM144FXVA*****	83

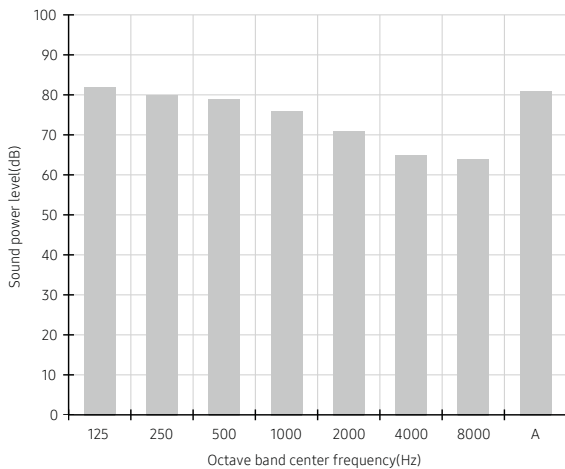
1) AM072FXVA*****



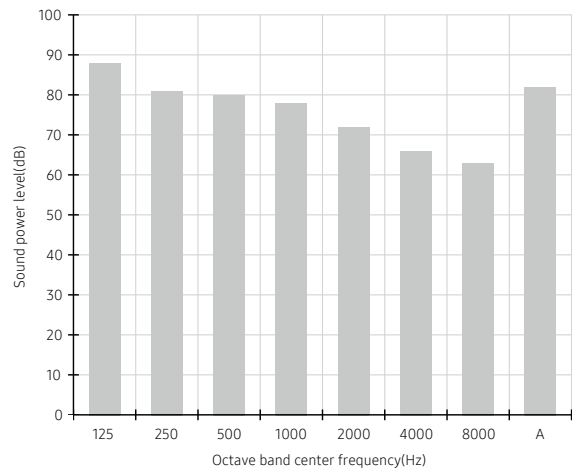
2) AM096FXVA*****



3) AM120FXVA*****



4) AM144FXVA*****



NOTE

- Specifications may be subject to change without prior notice.
 - Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level.
 - Reference power : 1pW.
 - Measured according to ISO 3741.

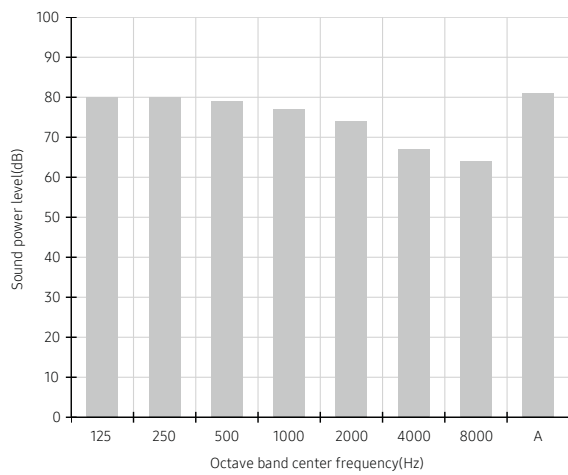
6. Sound Data

Sound Power Level

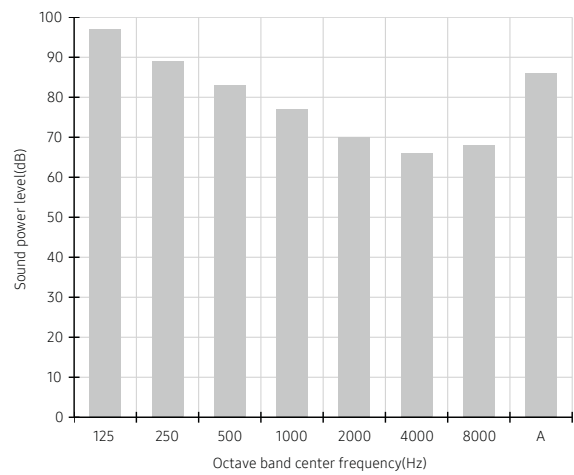
Unit: dB(A)

Model	Power
AM168HXVA*****	85
AM192HXVA*****	86
AM216KXVG*****	89

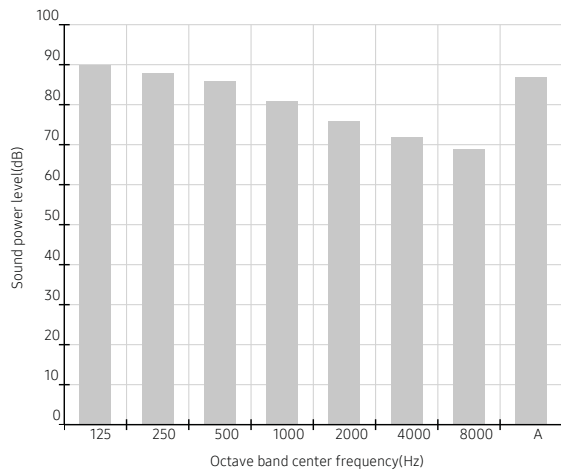
1) AM168HXVA*****



2) AM192HXVA*****



3) AM216KXVG*****

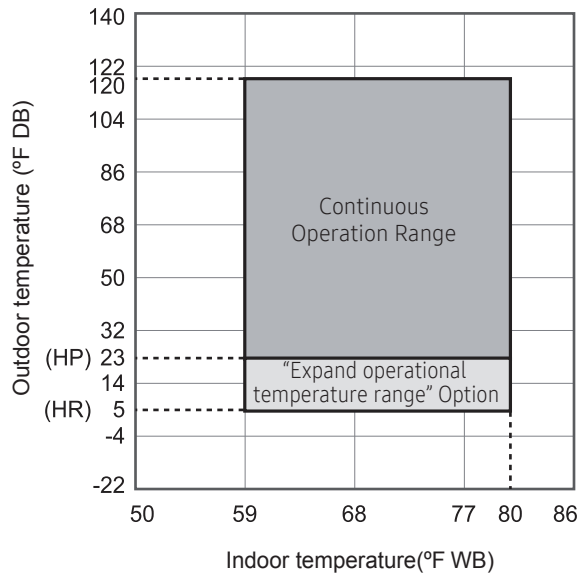


NOTE

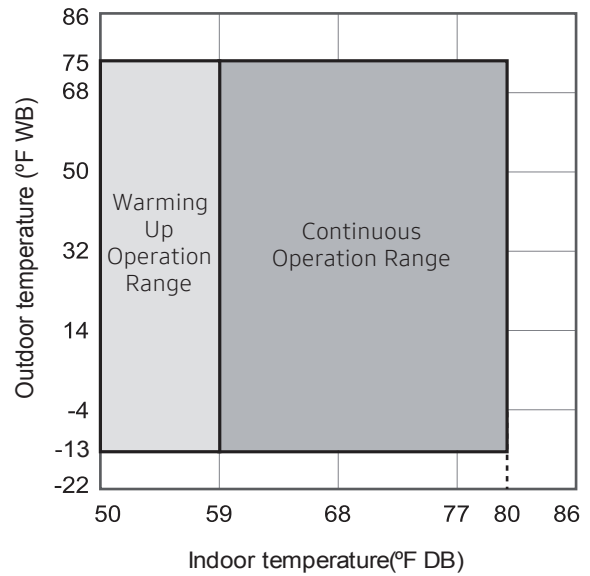
- Specifications may be subject to change without prior notice.
 - Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level.
 - Reference power : 1pW.
 - Measured according to ISO 3741.

7 Operation Range

Cooling



Heating



- (1) The operating range is shown in these figures
- (2) The assumed installation conditions are as follows
 - Outdoor units and indoor units combination
 - The Pipe length(including elbow) is 5m (16.4ft)
 - The Level difference is 0m
- (3) In the low temperature expansion option application, the cooling operating is possible under expand operational range only for HR system
- (4) In case of heating mode, operating is possible under warming up operation range. However continuous operating is impossible due to a protection control

7. Operation Range

Defrosting correction factor

The heating capacity tables do not take account of the reduction in capacity, when frost has accumulated or while the defrosting operation is in progress.

The capacity values, which take these factors into account, in other words, the integrated heating capacity values, can be calculated as follows :

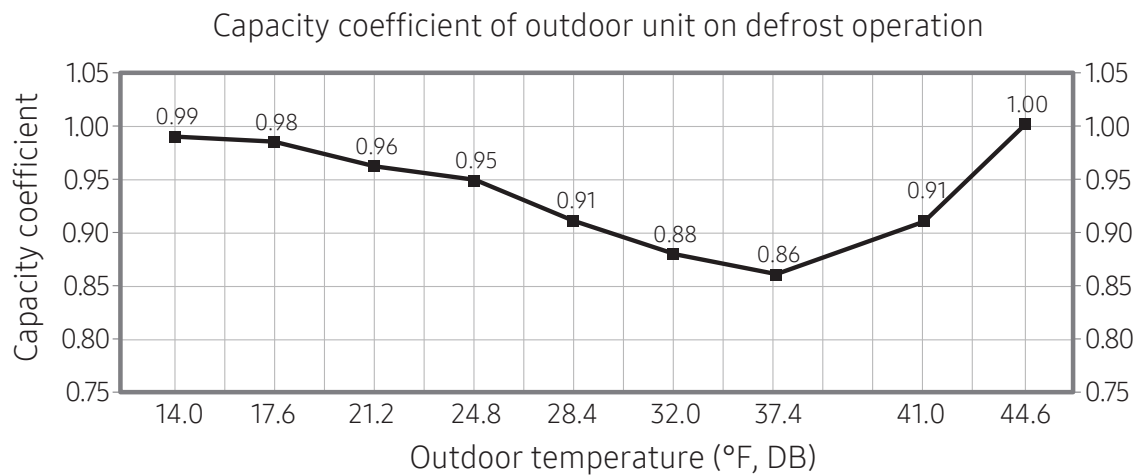
Formula : $A = B \times C$

Integrated heating capacity = A

Value given in table of capacity characteristics = B

Integrating correction factor for frost accumulation (kW) = C

Outdoor temperature (°F, DB)	14	17.6	21.2	24.8	28.4	32	37.4	41	44.6
Capacity coefficient	0.99	0.98	0.96	0.95	0.91	0.88	0.86	0.91	1.00



On heating operation, frost can be formed on heat exchanger according to outdoor temperature.

(Frost on heat exchanger results in decreasing the performance.)

To remove frost on heat exchanger of outdoor unit, defrost operation is carried out periodically.

During defrost operation, capacity of outdoor unit may decrease.

The decrement is not considered to the individual capacity tables.

This figure shows an effect of intelligence defrost operation

It is actually the frost occurrence section from 0 °C(32 °F) or less.

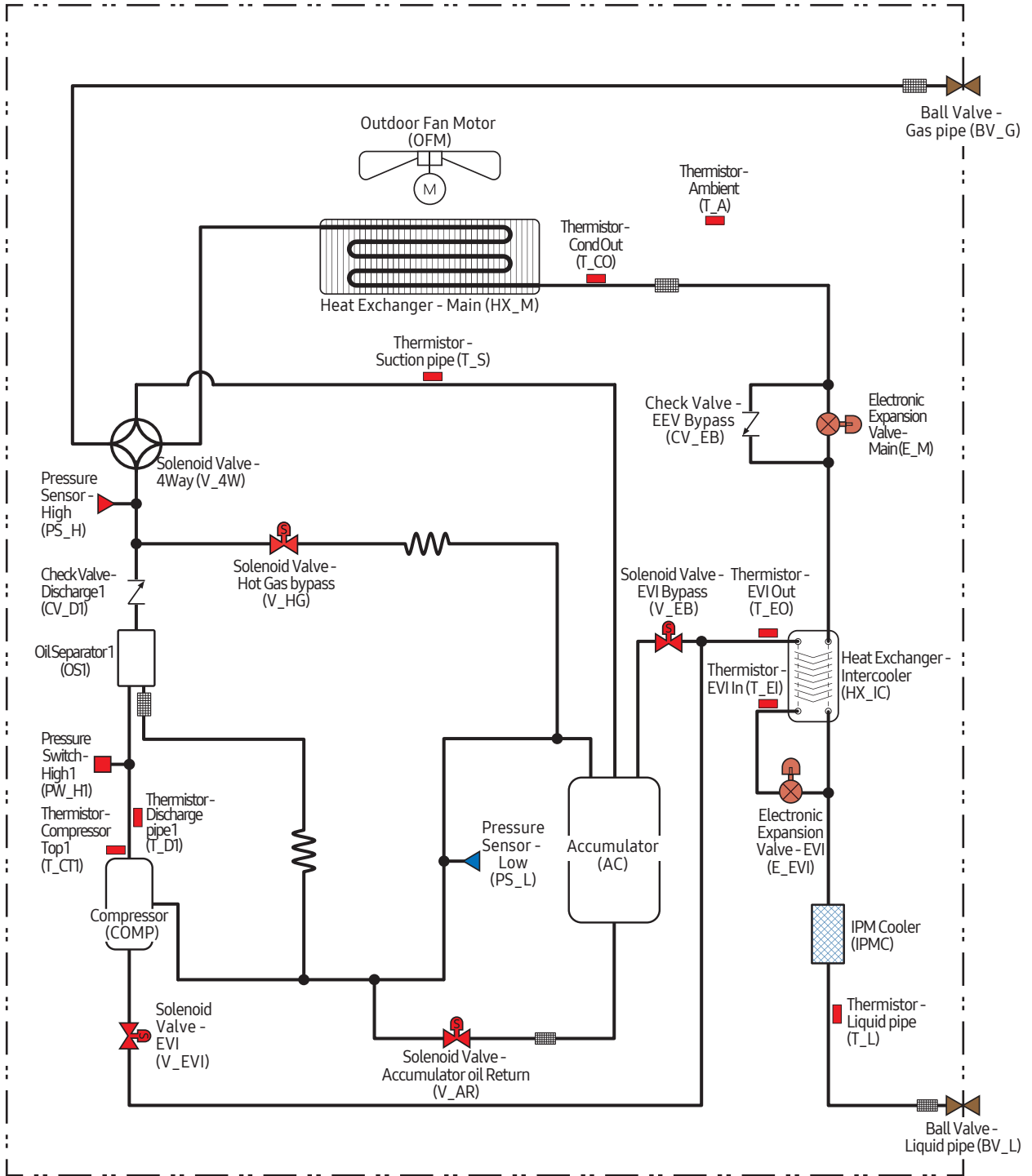
Since the outdoor temperature over 0 °C(32 °F), the heating performance is the same before and after applying intelligence defrost operation

In outdoor conditions below 0 °C(32 °F), frost conditions reflect the actual entering the defrost operation because heating performance is improved

8. Piping Diagram

Outdoor unit

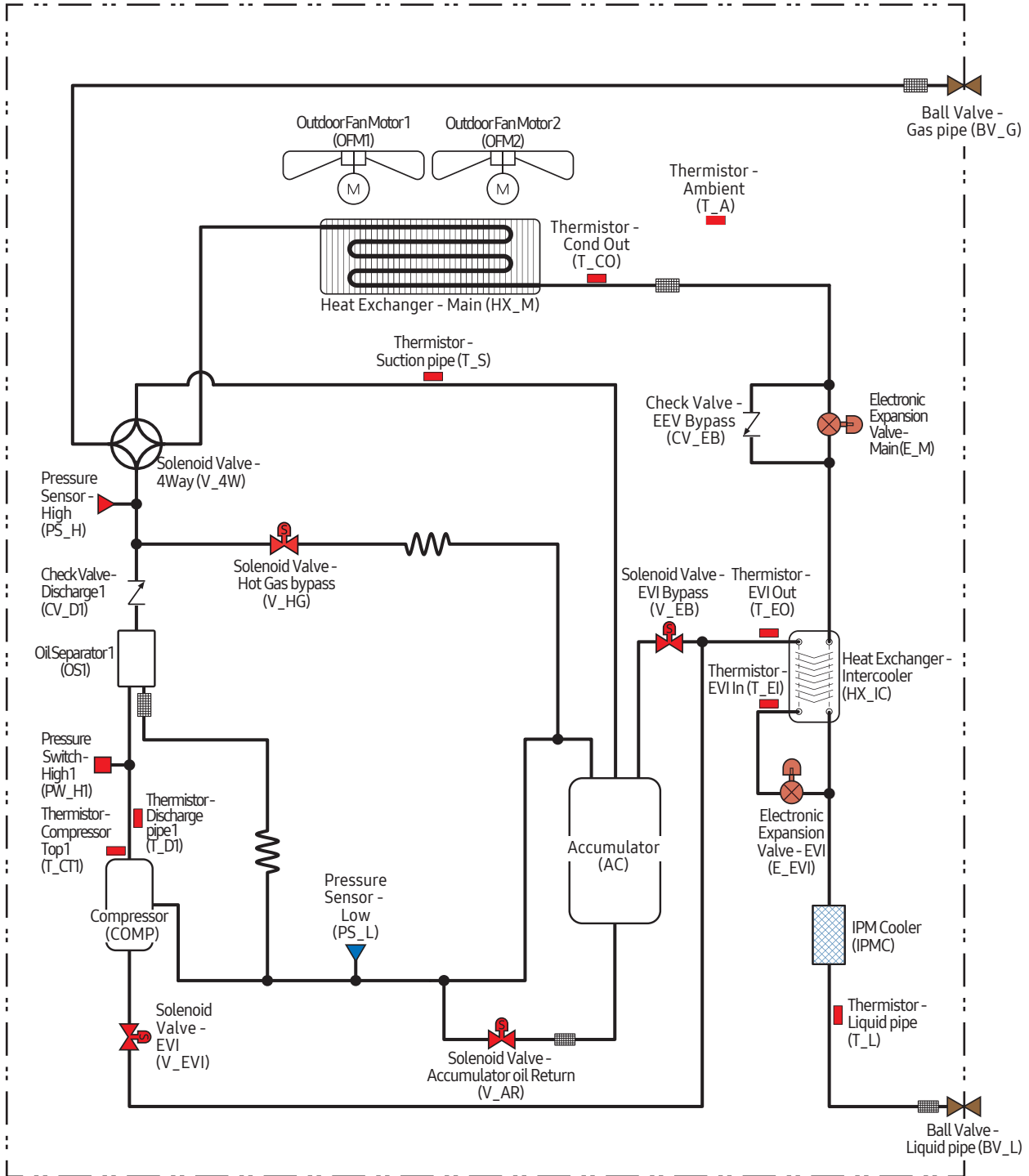
- AM072FXVA*H



8. Piping Diagram

Outdoor unit

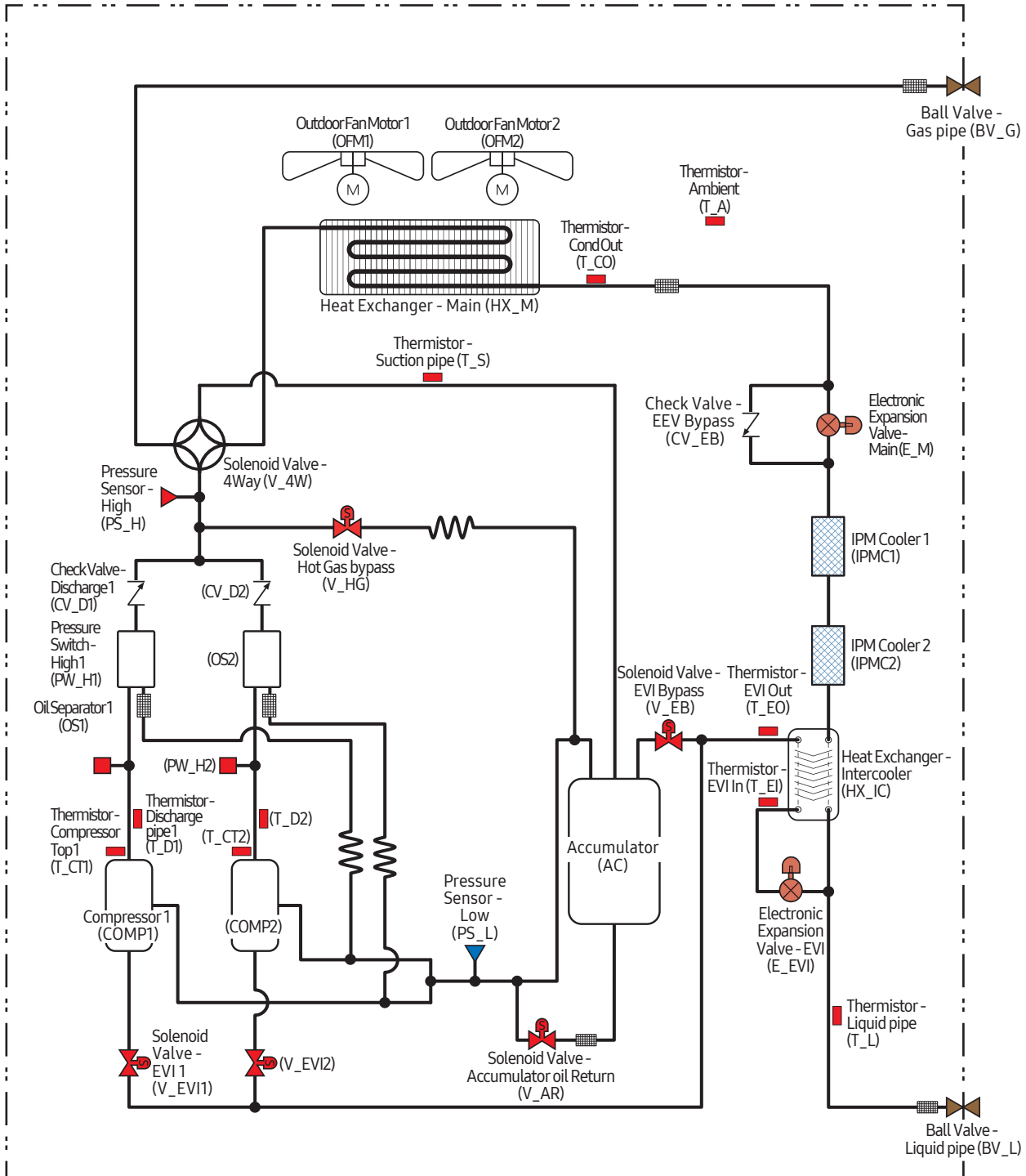
• AM096/120FXVAJH



8. Piping Diagram

Outdoor unit

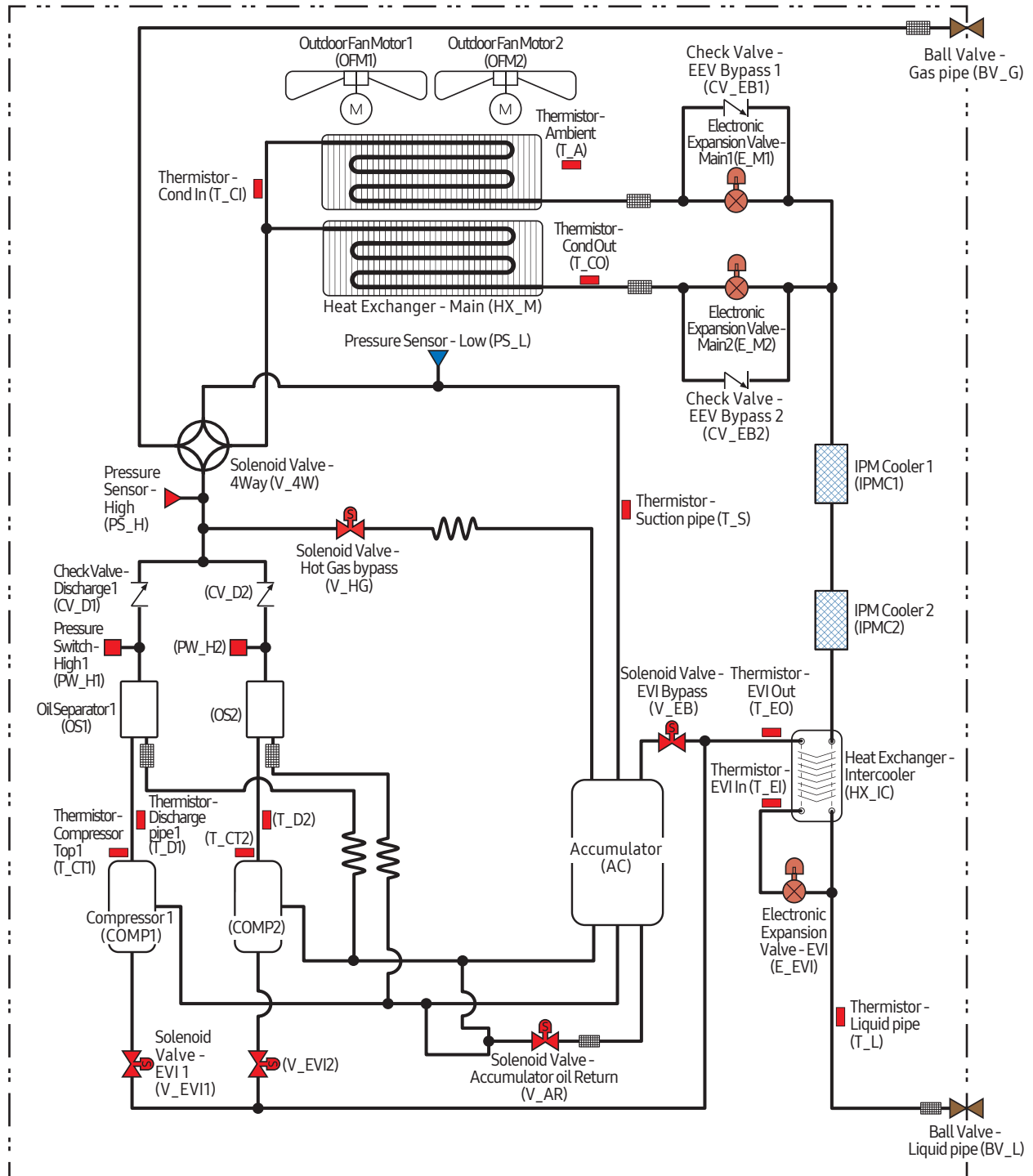
- AM096/120/144FXVAFH, AM168/192HXVAFH, AM144FXVAJH, AM168/192HXVAJH



8. Piping Diagram

Outdoor unit

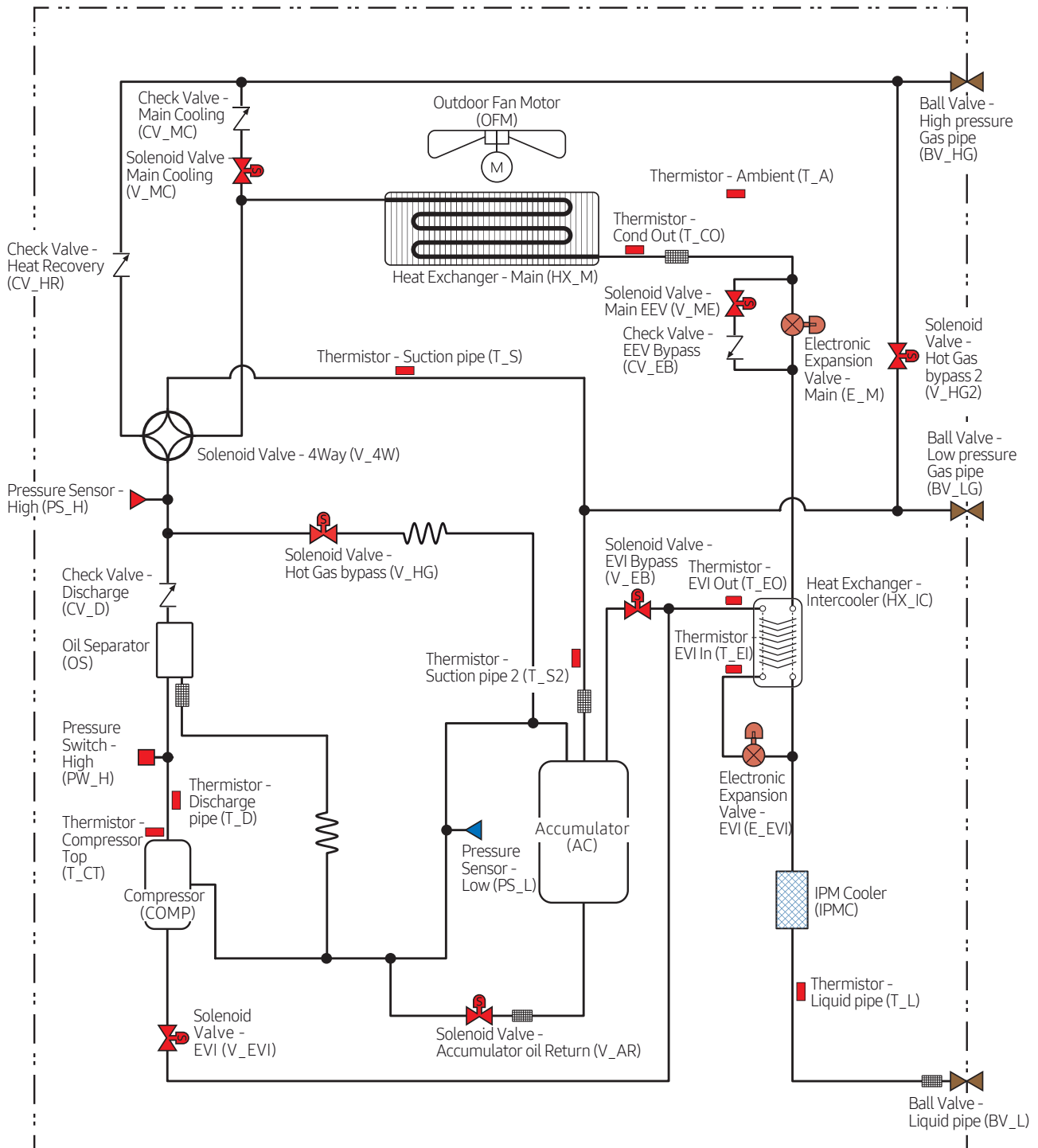
• AM216KXVGJH/AA



8. Piping Diagram

Outdoor unit

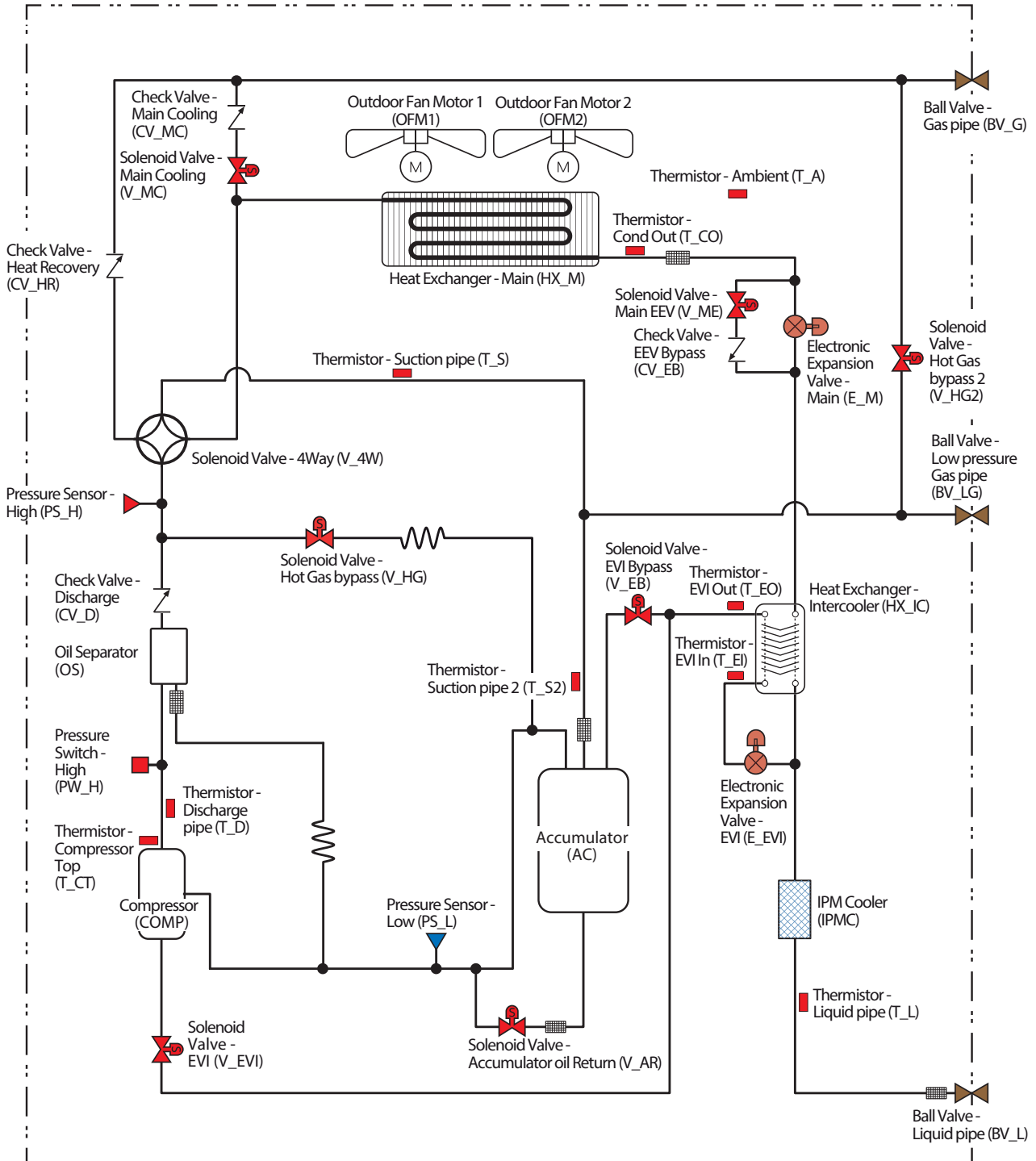
• AM072FXVA*R



8. Piping Diagram

Outdoor unit

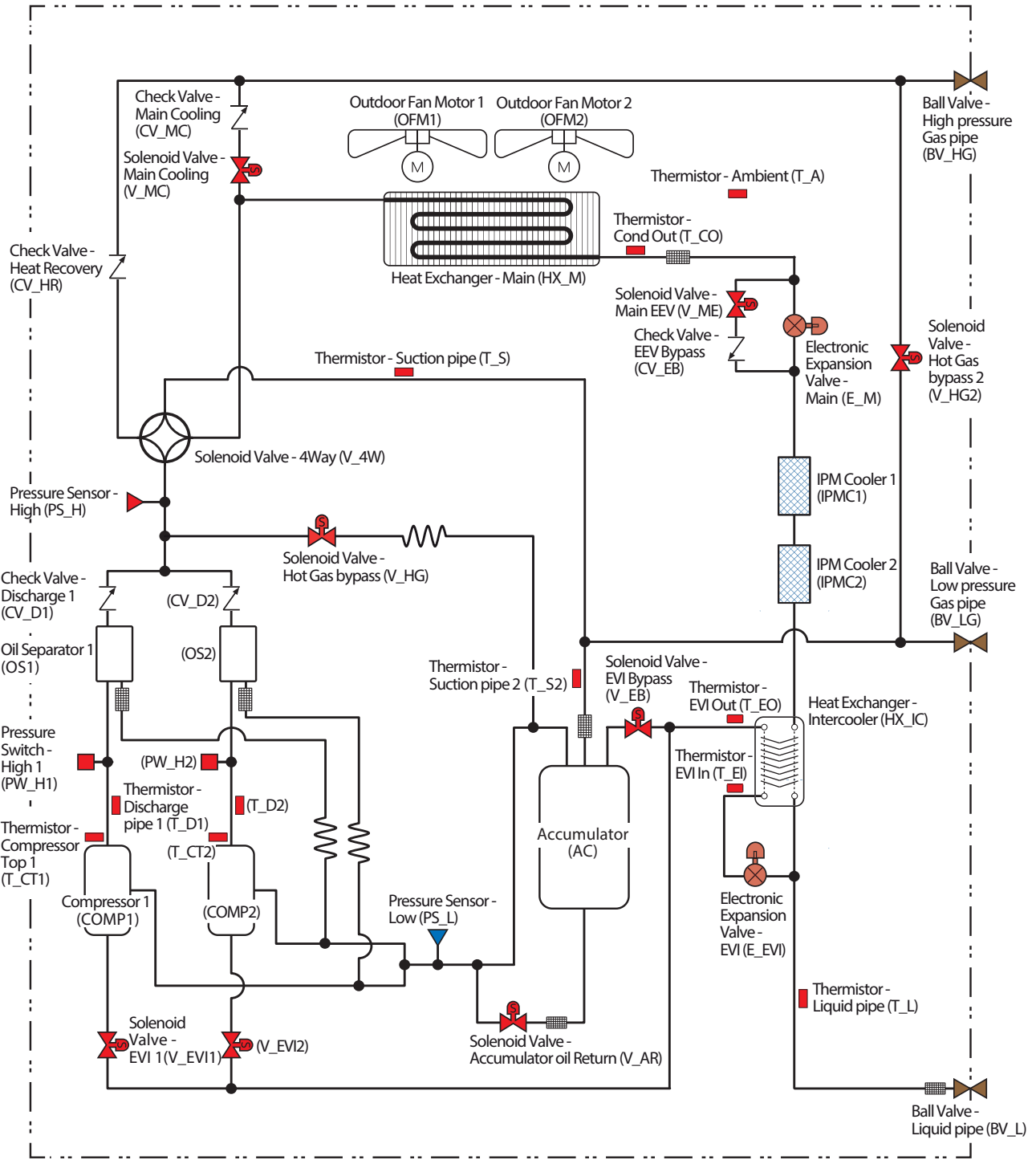
- AM096/120FXVAJR



8. Piping Diagram

Outdoor unit

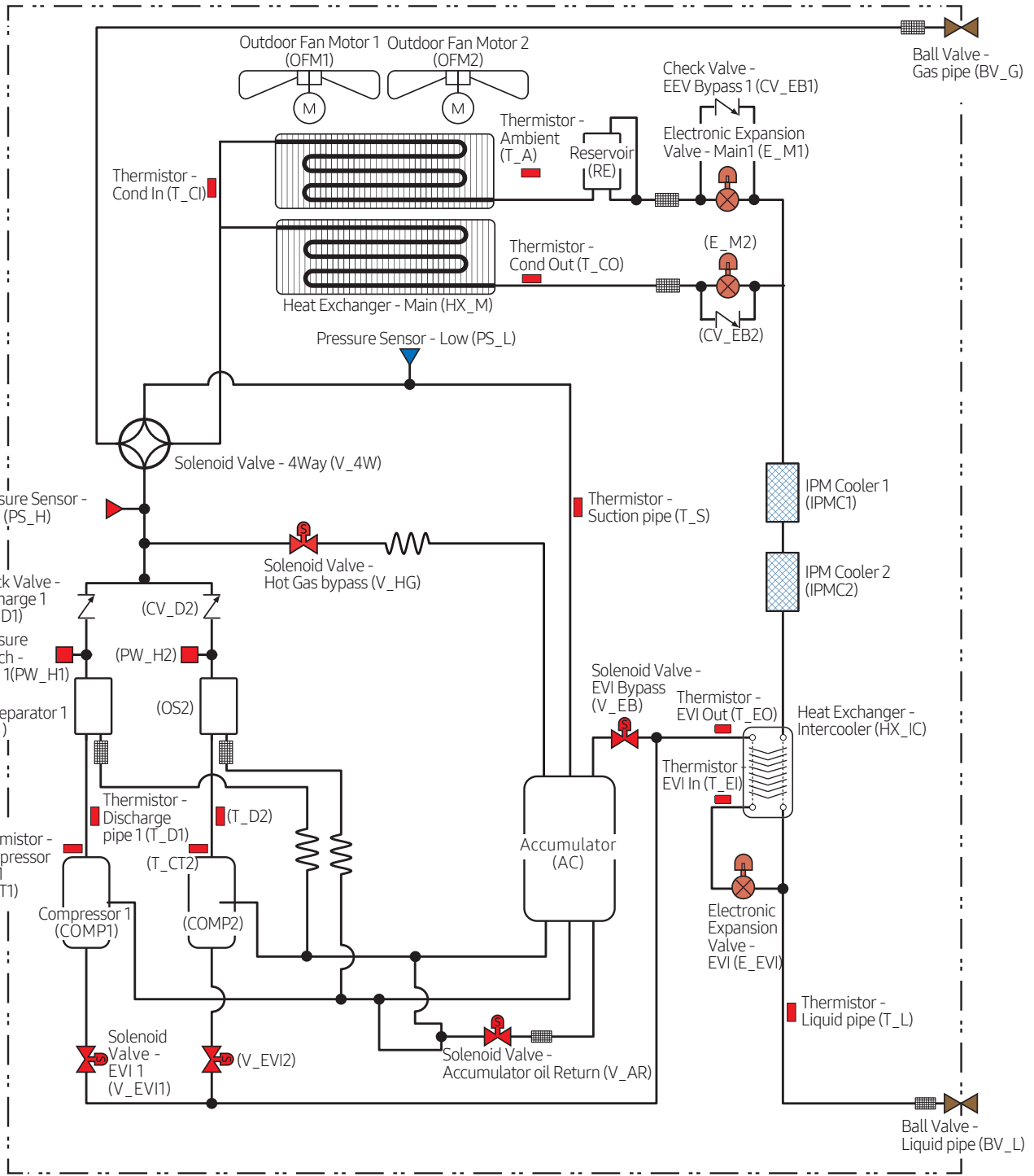
- AM096/120/144FXVAFR, AM168/192HXVAFR, AM144FXVAJR, AM168/192HXVAJR



8. Piping Diagram

Outdoor unit

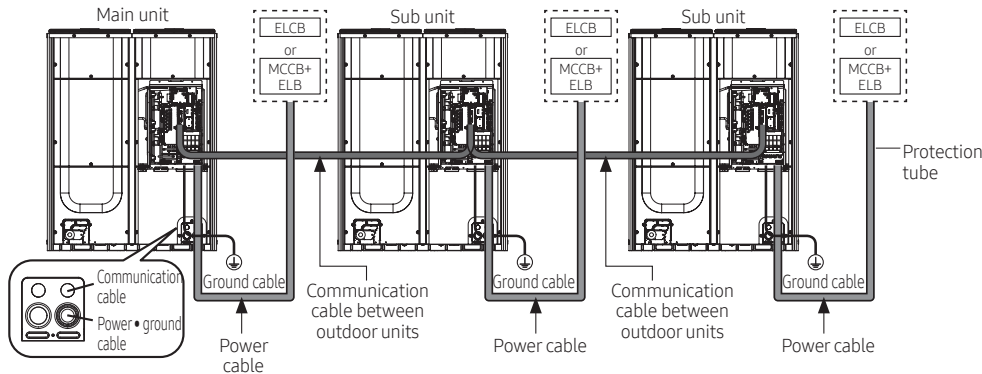
- AM216KXVGJR/AA



9. Installation

Power and communication cable configuration

- ▶ Main power and the ground cable must be withdrawn through the knock-out hole on the bottom-right or right side of the cabinet.
- ▶ Withdraw the communication cable from the designated knock-out hole on the bottom-right side of the front part.
- ▶ Install the power and communication cable using separate cable protection tube.
- ▶ Fix a protection tube to the knock-out hole on the outdoor unit by using a CD connector or bushing. Make sure to use insulating bushing.



Specification of the protection tube

Name	Temper grade	Applicable conditions
Flexible PVC conduit	PVC	When the protection tube is installed indoor and not exposed to outside, because it is embedded in concrete structure
Class 1 flexible conduit	Galvanized steel sheet	When the protection tube is installed indoor but exposed to outside so there are risk of damage to the protection tube
Class 1 PVC coated flexible conduit	Galvanized steel sheet and Soft PVC compound	When the protection tube is installed outdoor and exposed to outside so there are risk of damage to the protection tube and extra waterproof is needed

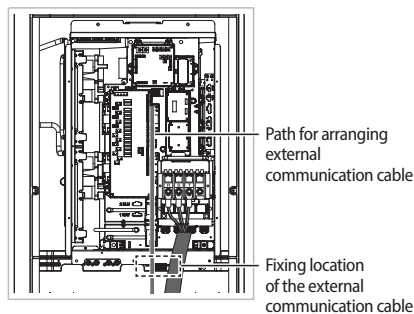


Caution for perforating the knock-out hole

- Perforate a knock-out hole by punching it with a hammer.
- After perforating the knock-out hole, apply rust resisting paint around the hole.
- When you need to pass the cables through the knock-out hole, remove burrs on the hole and protection the cable with a protection tape or bushing etc.

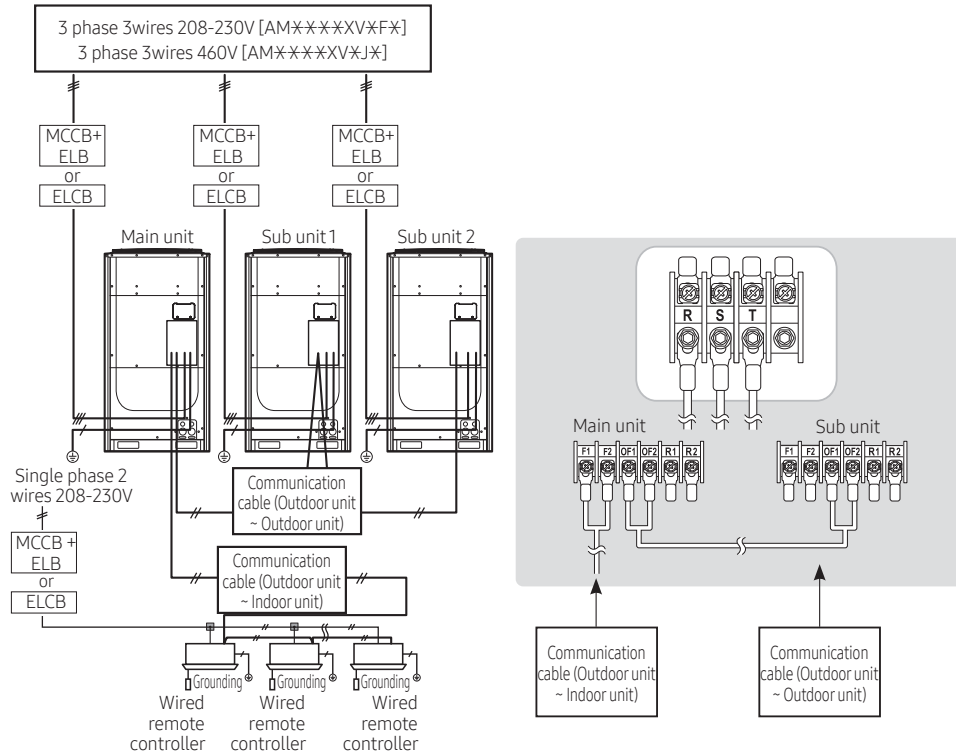
Caution for installing communication cable

- When you connect the cable, it may sag and pressed by other parts. Therefore cables should be fixed to a clamp highlighted with a box on the illustration.



9. Installation

Power wiring diagram



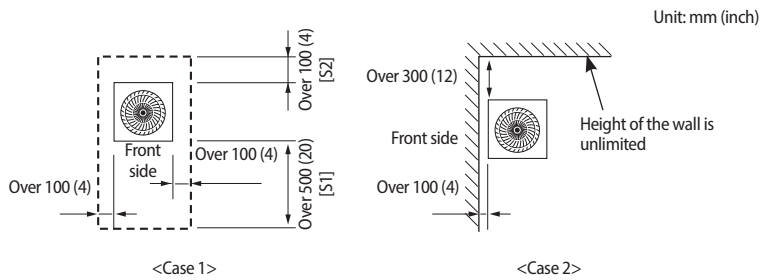
- ▶ Connect a power cable of the outdoor unit after checking that R-S-T (3 phase 3 wire) is properly connected.
- ▶ Malfunction may occur if one or more of the wires among R-S-T phases (3 Phases-3 Wires) are not connected properly. (*Malfunction: Turning on/off, occurrence of error, consecutive reset)
- ▶ Communication cable between indoor and outdoor units and communication cable between outdoor units has no polarity.
- ▶ Arrange the cables with a cable tie.
- ※ ELCB and ELB must be installed since there is risk of electric shock or fire when they are not installed.

9. Installation

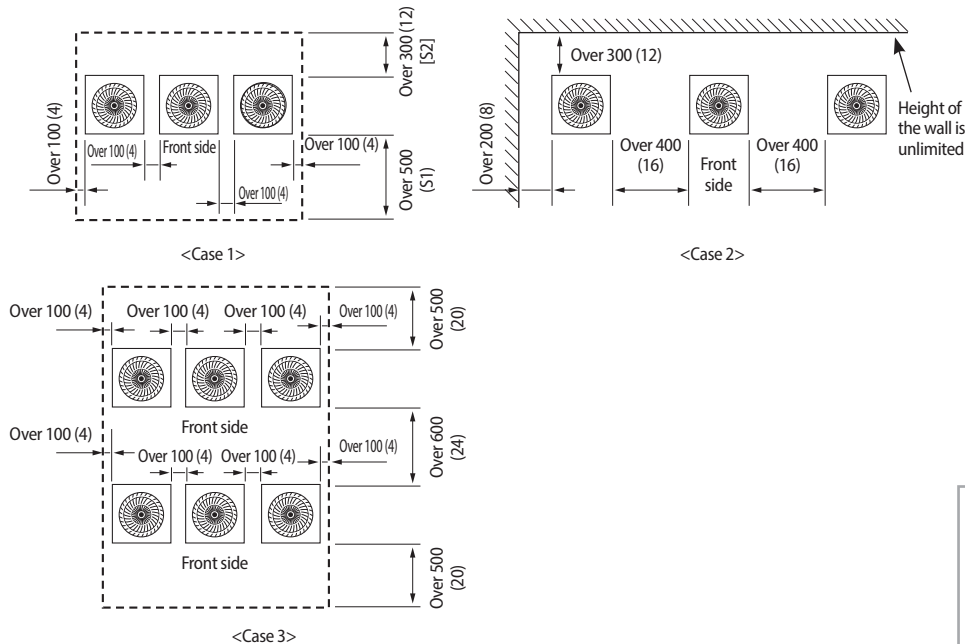
Space requirement for installation

- ▶ Space requirement was decided based on following conditions; Cooling mode, outdoor temperature of 35°C (95°F). Larger space is required if the outdoor temperature is higher than 35°C (95°F) or if the place is heated easily by quantity of solar radiation.
- ▶ When you secure installation space, consider path for people and the direction of the wind.
- ▶ Secure installation space as shown in the below illustration, considering ventilation and the service space.
- ▶ If the installation space is narrow, installer or other worker may get injured during work and may also cause problem to the product.
- ▶ If you install multiple number of outdoor units in one space, make sure to secure enough ventilation space if there's any walls around the product that may disturb the air flow. If enough ventilation space is not secured, product may malfunction.
- ▶ You may install the outdoor units with 20mm (0.78 inch) of space between the product, but product's performance may decrease depending on the installation environment.

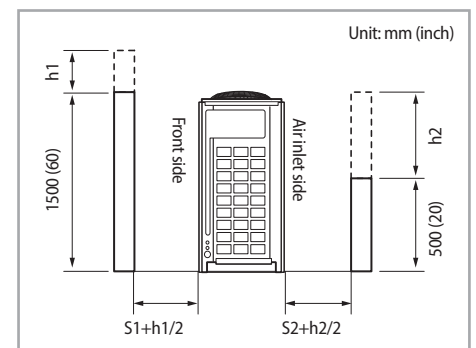
Single installation



Module installation



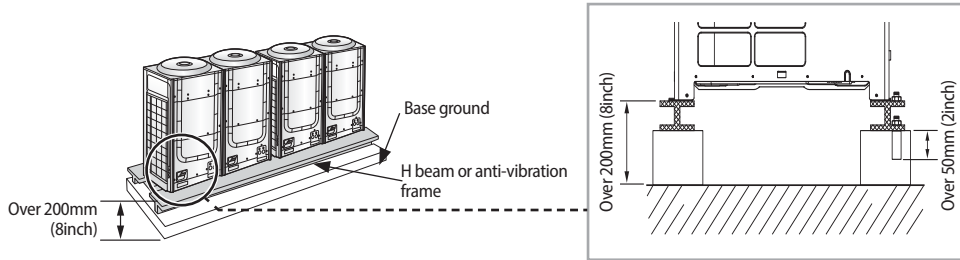
- * For <Case 1> or <Case 3>
 - Height of the wall on the front side should not be higher than 1500mm (60 inch).
 - Height of the wall on the air inlet side should not be higher than 500mm (20 inch).
 - Height of the wall on the side is not limited.
 - If the height of the wall exceeds by certain value (h_1 , h_2), additional clearance $[(h_1)/2, (h_2)/2$: Half of the exceeded distance] should be added to the service space (S_1 , S_2).



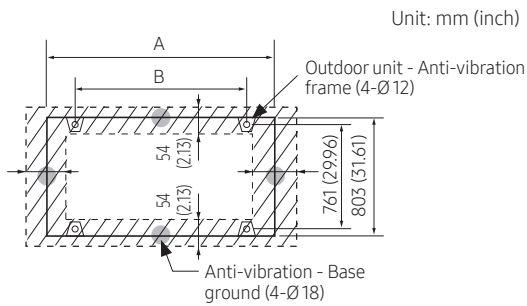
9. Installation

Base construction and installation of the outdoor unit

Outdoor unit installation



Outdoor unit base mount and anchor bolt position



Unit: mm (inch)

Classification	Small type	Large A type	Large B type
A	880 (34.65)	1,295 (50.98)	1,295 (50.98)
B	740 (29.13)	1,150 (45.28)	1,150 (45.28)

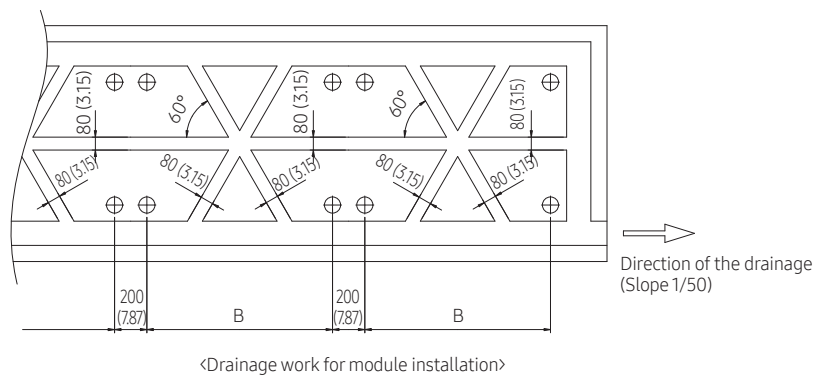
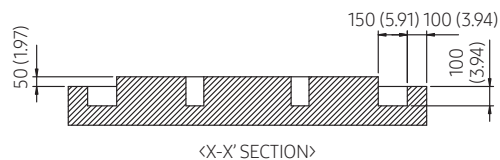
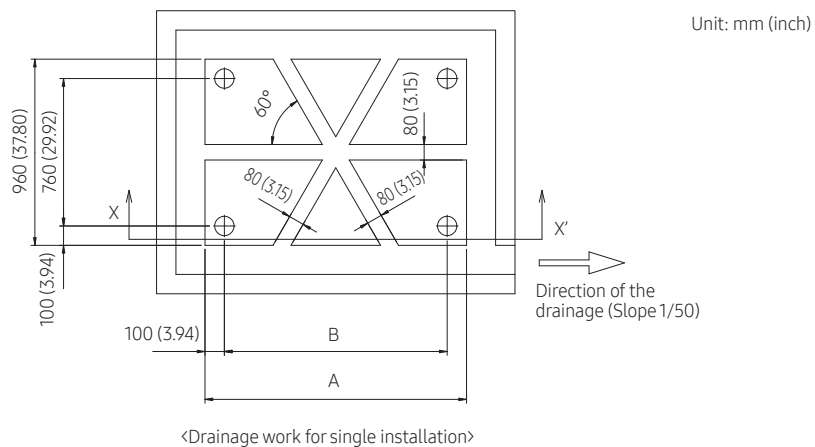
※ Refer to the blueprints in technical data book to make a holes for connecting the anti-vibration pad.

Classification	Small type	Large A type	Large B type
Appearance			

9. Installation

Examples of draining work

- ▶ Construct the drainage ditch with reinforced concretes and make sure that water-proofing work is done.
- ▶ For smooth draining of defrost water, make sure to apply 1/50 slope.
- ▶ Construct a drainage around the outdoor unit to prevent the defrost water (from the outdoor unit) from stagnating, overflowing or freezing near the installation space.
- ▶ When the outdoor unit is installed on the roof, check the strength and waterproof status of the roof.



Unit: mm (inch)

Classification	Small type	Large A type	Large B type
A	940 (37.01)	1,350 (53.15)	1,350 (53.15)
B	740 (29.13)	1,150 (45.28)	1,150 (45.28)

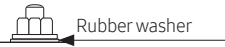
9. Installation

Base construction and installation of the outdoor unit



Caution regarding on connecting the anchor bolt

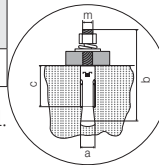
- ▶ Tighten the rubber washer to prevent the bolt connection part of the outdoor unit from corroding.



- ▶ Anchor specification

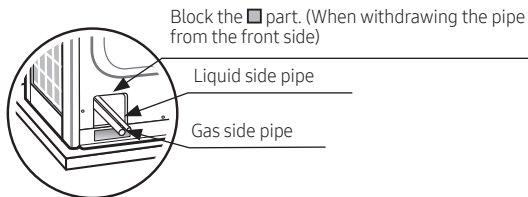
Size	Diameter of drill bit (a)	Anchor length (b)	Sleeve length (b)	Insert depth	Fastening torque
Ø10	14mm (1/2")	75mm (3")	40mm (1-1/2")	50mm (2")	30 N·m

- ※ Use the anchor bolts and nuts that is zinc plated or made of STS material. Regular anchor bolts or nuts may get damaged by corrosion.



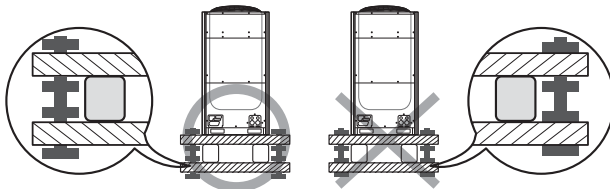
Caution regarding on connecting the pipe

- ▶ If you install the outdoor unit on the rooftop, check the strength and make sure to waterproof the rooftop.
- ▶ Construct draining pit around the base construction and pay attention to the drainage around the outdoor unit. (Condensation or defrost water may form during outdoor unit operation.)
- ▶ If there's any possibility of small animals from entering the pipe outlet, block the outlet as shown in the illustration.



Caution regarding on anti-vibration frame installation

- ▶ During installation, make sure there is no gap between the base ground and the supporting structures such as anti-vibration frame or H beam.
- ▶ Base ground must be constructed strongly to support the bottom part of the anti-vibration mount.



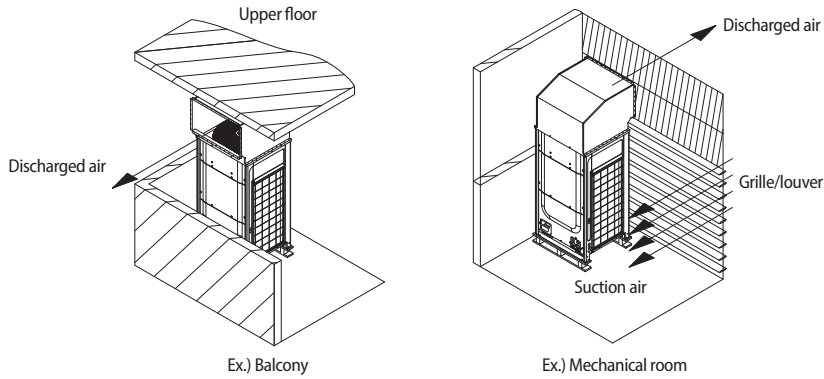
- ▶ After installing the anti-vibration frame, untighten the fixing part on the top and bottom part of the frame.

9. Installation

Installing the wind/snow prevention duct

Installing the outdoor unit around the obstacles

- ▶ It is necessary to install a wind/snow prevention duct (field supply) to direct exhaust from the fan horizontally, when it is difficult to provide a minimum space of 2m (6.56ft) between the air outlet and a nearby obstacle.



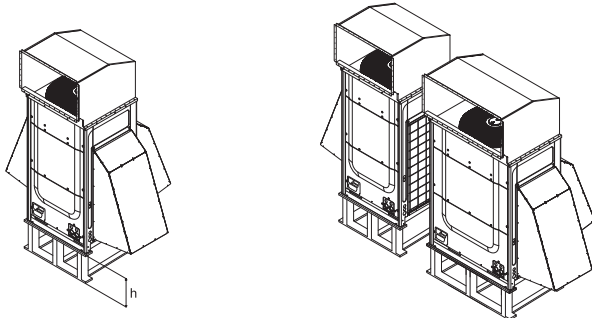
Installing the outdoor unit in cold region

- ▶ In cold regions with lots of snowfall, install a snow prevention duct, as a sufficient countermeasure, to prevent snow from accumulating on the outdoor unit. When the snow prevention duct is not installed, frost may accumulate on the heat exchanger and heating operation may not work normally.
- ▶ Air outlet of the duct should not be directed to the enclosed space.



Cautions regarding on installing the frame and selecting the base ground

- Height (h) of the frame and the base ground should be higher than the "heaviest expected snowfall".
- Area of the frame and the base ground should not be larger than the area of the outdoor unit. Snow may accumulate if the area of the frame or the base ground is larger.



9. Installation

Installing the outdoor unit in windy region

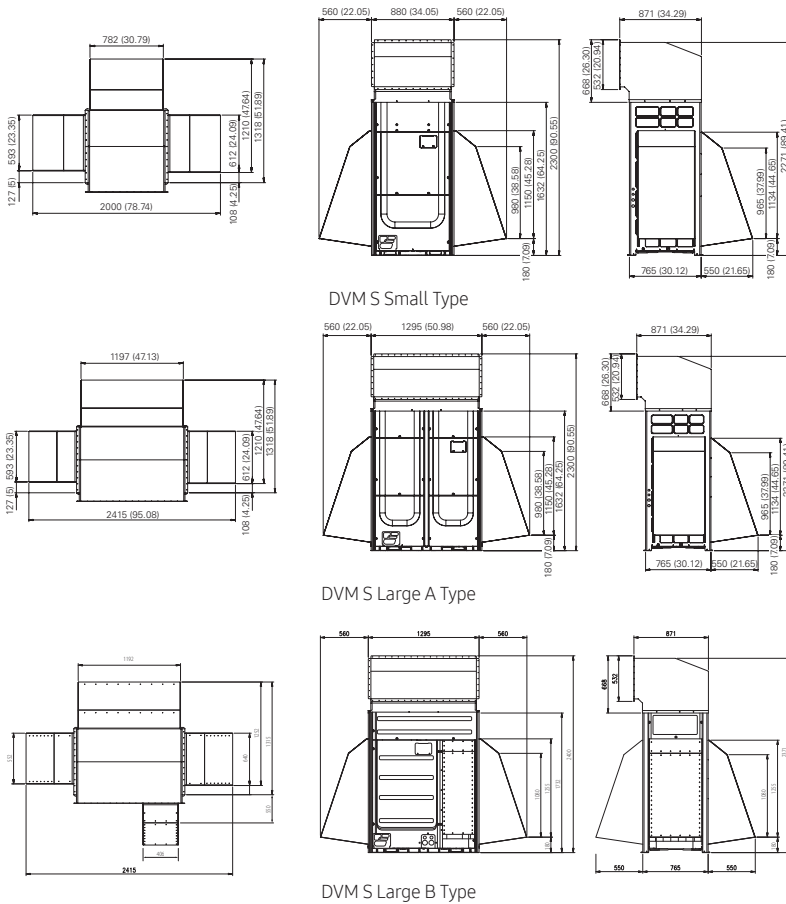
- ▶ In windy regions such as near sea shores, protection wall or wind protection duct must be installed for normal operation of the outdoor unit. (Refer to the illustration of the snow prevention duct, for installing the wind protection duct.)
- ▶ Install the wind prevention duct with the consideration of major wind direction. If the direction of the discharge part is same as major direction of the wind, it could cause product's performance decrease.



Cautions regarding on installing the frame and selecting the base ground

- The base ground must be solid and the outdoor unit must be fixed with anchor bolts.
- Make sure to install outdoor unit in a place strong enough to withstand its weight. If the place cannot withstand the weight of the outdoor unit, outdoor unit may fall and cause personal injury.
- When installing on a rooftop subject to strong wind, countermeasures must be taken to prevent the unit from falling down.
- Use a frame that is resistant to corrosion.

Unit: mm (inch)



9. Installation

Refrigerant pipe installation



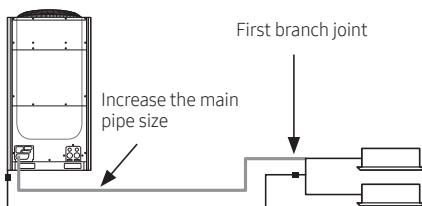
When installing, make sure there is no leakage. When collecting the refrigerant, stop the compressor first before removing the connection pipe. If the refrigerant pipe is not properly connected and the compressor works with the service valve open, the pipe inhales the air and it makes the pressure inside of the refrigerant cycle abnormally high which may lead to explosion and injury.

Refrigerant pipe work

- ▶ The length of refrigerant pipe should be as short as possible and the height difference between an indoor and outdoor unit should be minimized.
- ▶ Piping work must be done within allowable piping length, height difference, and the allowable length after branching.
- ▶ The pressure of the R-410A is high. Use only certified refrigerant pipe and follow the installation method.
- ▶ After installing the pipes, calculate the total length of the pipe to check if additional refrigerant is needed. When you need to charge the additional refrigerant, make sure to use R-410A refrigerant.
- ▶ Use clean refrigerant pipe and there shouldn't be any harmful ion, oxide, dust, iron content or moisture inside pipe.
- ▶ Use tools and accessories that fit on R-410A only.

Tool	Installation process/purpose	Compatibility with conventional tool
Pipe cutter	Refrigerant pipe installation	Compatible
Flaring tool		
Refrigerant machine oil	Apply refrigerant oil on flared part	Exclusive ether oil, ester oil, alkali benzene oil or synthetic oil
Torque wrench	Refrigerant pipe installation	Compatible
Pipe bender		
Nitrogen gas	Air tightness test	Compatible
Welder		
Manifold gage	Air tightness test ~ additional refrigerant charging	Need exclusive one to prevent mixture of R-22 refrigerant oil use and also the measurement is not available due to high pressure
Refrigerant charging hose		Need exclusive one since there is risk of refrigerant leakage or in flow of impurities
Vacuum pump	Pipe drying	Compatible (Use products which contain the check valve to prevent the oil from flowing backward into the outdoor unit.) Use the one that can be vacuumed up to -100.7kpa(5Torr).
Scale for refrigerant charging	Charging refrigerant	Compatible
Gas leak detector	Gas leak test	Need exclusive one (Ones used for R-134a is compatible)
Flare nut	Must use the flare nut equipped with the product. Refrigerant leakage may occur when the conventional flare nut for R-22 is used.	

Selecting refrigerant pipe

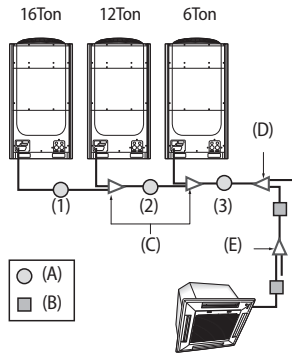


- ▶ Install the refrigerant pipe according to main pipe size of each outdoor unit capacity.
- ▶ When the pipe length (including elbow) between an outdoor unit and the farthest indoor unit exceeds 90m (295.28ft), you must increase the size of the pipe (main pipe) by one grade which connects between the outdoor unit to the first branch joint.
- ▶ For H/R model, When the pipe length (including elbow) between an outdoor unit and the farthest indoor unit exceeds 90m, you must increase the size of the liquid pipe by one grade among the pipes(main pipe) which connects between the outdoor unit to the first branch joint.

9. Installation

Refrigerant pipe installation

H/P



Ex.) 34 Ton

Ton	No.	Pipe size (O.D)			
		Liquid pipe		Gas pipe	
		mm	inch	mm	inch
16	(1)	15.88	5/8	28.58	1 1/8
28	(2)	19.05	3/4	34.92	1 3/8
34	(3)	19.05	3/4	41.28	1 5/8

Size of the pipe connected to the outdoor unit (A)

Select the size of the pipe according to the below table.

Outdoor unit capacity			Main pipe length within 90m (295.3ft)				Size up(Main pipe length over 90m (295.3ft))			
Ton	MBH	KW	Liquid		Gas		Liquid		Gas	
			mm	inch	mm	inch	mm	inch	mm	inch
6	72	21.1	9.52	3/8	19.05	3/4	12.7	1/2	22.22	7/8
8	96	28.1	9.52	3/8	22.22	7/8	12.7	1/2	25.4	1 note1)
10	120	35.2	12.7	1/2	28.58	1 1/8	15.88	5/8	28.58	1 1/8
12	144	42.2	12.7	1/2	28.58	1 1/8	15.88	5/8	31.75	1 1/4 note2)
14	168	49.2	15.88	5/8	28.58	1 1/8	19.05	3/4	31.75	1 1/4 note2)
16	192	56.3	15.88	5/8	28.58	1 1/8	19.05	3/4	31.75	1 1/4 note2)
18	216	63.3	15.88	5/8	28.58	1 1/8	19.05	3/4	31.75	1 1/4 note2)
20	240	70.3	15.88	5/8	28.58	1 1/8	19.05	3/4	31.75	1 1/4 note2)
22	264	77.4	19.05	3/4	34.92	1 3/8	22.22	7/8	38.1	1 1/2 note3)
24	288	84.4	19.05	3/4	34.92	1 3/8	22.22	7/8	38.1	1 1/2 note3)
26	312	91.4	19.05	3/4	34.92	1 3/8	22.22	7/8	38.1	1 1/2 note3)
28	336	98.4	19.05	3/4	34.92	1 3/8	22.22	7/8	38.1	1 1/2 note3)
30	360	105.5	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8
32	384	112.5	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8
34	408	119.5	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8
36	432	126.6	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8
38	456	133.6	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8
40	480	140.7	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8
42	504	147.7	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8
44	528	154.7	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8

Note1) If 1" (25.4mm) pipe is not available on site, use 1 1/8" (28.58mm) pipe.

Note2) If 1 1/4" (31.75mm) pipe is not available on site, use 1 3/8" (34.92mm) pipe.

Note3) If 1 1/2" (38.1mm) pipe is not available on site, use 1 5/8" (41.28mm) pipe.

9. Installation

Size of the pipe between branch joints (B)

Select the pipe size according to the sum of indoor unit capacity which will be connected after the branch.

* However, if the size of the pipe between branch joints (B) is bigger than the size of the pipe connected to the outdoor unit (A), apply the pipe size (A).

Indoor unit capacity		Branch pipe length within 45m(147.6ft) ^{note1)}				Branch pipe length between 45~90m(147.6~295.3ft) ^{note1)}			
		Liquid		Gas		Liquid		Gas	
MBH	KW	mm	inch	mm	inch	mm	inch	mm	inch
~51	~15.0	9.52	3/8	15.88	5/8	12.7	1/2	19.05	3/4
51~76	15.0~22.4	9.52	3/8	19.05	3/4	12.7	1/2	22.22	7/8
76~96	22.4~28.1	9.52	3/8	22.22	7/8	12.7	1/2	25.4	1 ^{note2)}
96~136	28.1~40.0	12.7	1/2	28.58	1 1/8	15.88	5/8	28.58	1 1/8
136~154	40.0~45.0	12.7	1/2	28.58	1 1/8	15.88	5/8	31.75	1 1/4 ^{note3)}
154~240	45.0~70.3	15.88	5/8	28.58	1 1/8	19.05	3/4	31.75	1 1/4 ^{note3)}
240~336	70.3~98.4	19.05	3/4	34.92	1 3/8	22.22	7/8	38.1	1 1/2 ^{note4)}
336~461	98.4~135.2	19.05	3/4	41.28	1 5/8	22.22	7/8	41.28	1 5/8
461~577	135.2~169	19.05	3/4	41.28	1 5/8	22.22	7/8	53.98	2 1/8
577 ~	169.0 ~	22.22	7/8	53.98	2 1/8	25.40	1 ^{note2)}	53.98	2 1/8

Note1) **Note on measuring distance between branch joints (B)** : You must measure the distance between first branch joint to the last indoor unit. (NOT from first joint to the last branch joint)

Note2) If 1" (25.4mm) pipe is not available on site, use 1 1/8" (28.58mm) pipe.

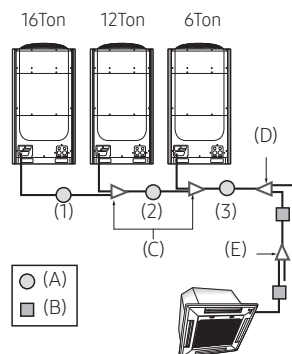
Note3) If 1 1/4" (31.75mm) pipe is not available on site, use 1 3/8" (34.92mm) pipe.

Note4) If 1 1/2" (38.1mm) pipe is not available on site, use 1 5/8" (41.28mm) pipe.

Size of the pipe between the branch joint and the indoor unit

Make a selection according to outdoor unit capacity.

Indoor unit capacity		Pipe Size(O.D)			
		Liquid		Gas	
MBH	KW	mm	inch	mm	inch
~20	~6.0	6.35	1/4	12.7	1/2
24~52	7.1~16.0	9.52	3/8	15.88	5/8
68~78	20.0~23.0	9.52	3/8	19.05	3/4
78~96	23.0~29.0	9.52	3/8	22.22	7/8



Branch joint

- Branch joint between outdoor units (C)

Classification	Model name	Specification	
		MBH	kW
Y-joint for outdoor unit (C)	MXJ-TA3819M	461 and below	135.2 and below
	MXJ-TA4422M	478 and over	140.2 and over

9. Installation

► First branch joint (D)

Make a selection according to outdoor unit capacity.

Classification	Model name	Outdoor unit capacity	
		MBH	kW
Y-joint (D)	MXJ-YA2512M	Over 51 ~ 136 and below	Over 15.0 ~ 40.0 and below
	MXJ-YA2812M	Over 136 ~ 154 and below	Over 40.0 ~ 45.0 and below
	MXJ-YA2815M	Over 154 ~ 240 and below	Over 45.0 ~ 70.3 and below
	MXJ-YA3419M	Over 240 ~ 336 and below	Over 70.3 ~ 98.4 and below
	MXJ-YA4119M	Over 336 ~ 461 and below	Over 98.4 ~ 135.2 and below
	MXJ-YA4422M	Over 461	Over 135.2

► Branch joint (E)

Select a branch joint according to the sum of indoor unit capacity which will be connected after the branch.

1) Y-joint

Classification	Model name	Specification	
		MBH	kW
Y-joint (E)	MXJ-YA1509M	51 and below	15.0 and below
	MXJ-YA2512M	Over 51 ~ 136 and below	Over 15.0 ~ 40.0 and below
	MXJ-YA2812M	Over 136 ~ 154 and below	Over 40.0 ~ 45.0 and below
	MXJ-YA2815M	Over 154 ~ 240 and below	Over 45.0 ~ 70.3 and below
	MXJ-YA3419M	Over 240 ~ 336 and below	Over 70.3 ~ 98.4 and below
	MXJ-YA4119M	Over 336 ~ 461 and below	Over 98.4 ~ 135.2 and below
	MXJ-YA4422M	Over 461	Over 135.2

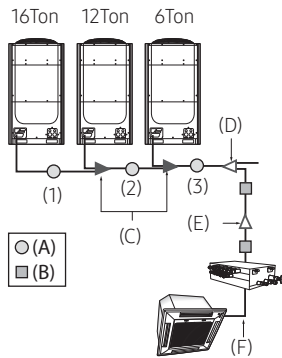
2) Distribution header

Classification	Model name	Specification	
		MBH	kW
Distribution header (E)	MXJ-HA2512M	154 and below (for 4 rooms)	45.0 and below (for 4 rooms)
	MXJ-HA3115M	240 and below (for 8 rooms)	70.3 and below (for 8 rooms)
	MXJ-HA3819M	Over 240 (for 8 rooms)	Over 70.3 (for 8 rooms)

9. Installation

Refrigerant pipe installation

H/R



Ex.) 34 Ton

Ton	No.	Pipe size (O.D)					
		Liquid		Gas		High pressure Gas	
		mm	inch	mm	inch	mm	inch
10	(1)	15.88	5/8	28.58	1 1/8	28.58	1 1/8
28	(2)	19.05	3/4	34.92	1 3/8	28.58	1 1/8
34	(3)	19.05	3/4	41.28	1 5/8	34.92	1 3/8

Size of the pipe connected to the outdoor unit (A)

Select the size of the pipe according to the below table.

Outdoor unit capacity			Main pipe length within 90m (295.3ft)						Size up(Main pipe length over 90m (295.3ft))					
Ton	MBH	KW	Liquid		Gas		High pressure Gas		Liquid		Gas		High pressure Gas	
			mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
6	72	21.1	9.52	3/8	19.05	3/4	15.88	5/8	12.7	1/2	19.05	3/4	15.88	5/8
8	96	28.1	9.52	3/8	22.22	7/8	19.05	3/4	12.7	1/2	22.22	7/8	19.05	3/4
10	120	35.2	12.7	1/2	28.58	1 1/8	22.22	7/8	15.88	5/8	28.58	1 1/8	22.22	7/8
12	144	42.2	12.7	1/2	28.58	1 1/8	22.22	7/8	15.88	5/8	28.58	1 1/8	22.22	7/8
14	168	49.2	15.88	5/8	28.58	1 1/8	22.22	7/8	19.05	3/4	28.58	1 1/8	22.22	7/8
16	192	56.3	15.88	5/8	28.58	1 1/8	28.58	1 1/8	19.05	3/4	28.58	1 1/8	28.58	1 1/8
18	216	63.3	15.88	5/8	28.58	1 1/8	28.58	1 1/8	19.05	3/4	28.58	1 1/8	28.58	1 1/8
20	240	70.3	15.88	5/8	28.58	1 1/8	28.58	1 1/8	19.05	3/4	28.58	1 1/8	28.58	1 1/8
22	264	77.4	19.05	3/4	34.92	1 3/8	28.58	1 1/8	22.22	7/8	34.92	1 3/8	28.58	1 1/8
24	288	84.4	19.05	3/4	34.92	1 3/8	28.58	1 1/8	22.22	7/8	34.92	1 3/8	28.58	1 1/8
26	312	91.4	19.05	3/4	34.92	1 3/8	28.58	1 1/8	22.22	7/8	34.92	1 3/8	28.58	1 1/8
28	336	98.4	19.05	3/4	34.92	1 3/8	28.58	1 1/8	22.22	7/8	34.92	1 3/8	28.58	1 1/8
30	360	105.5	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
32	384	112.5	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
34	408	119.5	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
36	432	126.6	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
38	456	133.6	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
40	480	140.7	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
42	504	147.7	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
44	528	154.7	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8

※ For HR model, only increase the size of the liquid pipe If pipe length exceeds 90m

9. Installation

Size of the pipe between branch joints (B)

Select the pipe size according to the sum of indoor unit capacity which will be connected after the branch.

* However, if the size of the pipe between branch joints (B) is bigger than the size of the pipe connected to the outdoor unit (A), apply the pipe size (A).

Indoor unit capacity		Branch pipe length within 45m(147.6ft) ^(note1)						Branch pipe length between 45~90m(147.6~295.3ft) ^(note1)					
		Liquid		Low pressure gas		High pressure gas		Liquid		Low pressure gas		High pressure gas	
MBH	KW	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
~51	~15.0	9.52	3/8	15.88	5/8	15.88	5/8	12.70	1/2	15.88	5/8	15.88	5/8
51~76	15.0~22.4	9.52	3/8	19.05	3/4	15.88	5/8	12.70	1/2	19.05	3/4	15.88	5/8
76~96	22.4~28.1	9.52	3/8	22.22	7/8	19.05	3/4	12.70	1/2	22.22	7/8	19.05	3/4
96~115	28.1~33.6	12.7	1/2	28.58	1 1/8	19.05	3/4	15.88	5/8	28.58	1 1/8	19.05	3/4
115~154	33.6~45.0	12.7	1/2	28.58	1 1/8	22.22	7/8	15.88	5/8	28.58	1 1/8	22.22	7/8
154~172	45.0~50.4	15.88	5/8	28.58	1 1/8	22.22	7/8	19.05	3/4	28.58	1 1/8	22.22	7/8
172~240	50.4~70.3	15.88	5/8	28.58	1 1/8	28.58	1 1/8	19.05	3/4	28.58	1 1/8	28.58	1 1/8
240~336	70.3~98.4	19.05	3/4	34.92	1 3/8	28.58	1 1/8	22.22	7/8	34.92	1 3/8	28.58	1 1/8
336~360	98.4~105.5	19.05	3/4	41.28	1 5/8	28.58	1 1/8	22.22	7/8	41.28	1 5/8	28.58	1 1/8
360~461	105.5~135.2	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
461~577	135.2~169.0	19.05	3/4	41.28	1 5/8	34.92	1 3/8	22.22	7/8	41.28	1 5/8	34.92	1 3/8
577~	169.0~	22.22	7/8	53.98	2 1/8	41.28	1 5/8	25.40	1 ^(note2)	53.98	2 1/8	41.28	1 5/8

Note1) **Note on measuring distance between branch joints (B)** : You must measure the distance between first branch joint to the last indoor unit. (NOT from first joint to the last branch joint)

Note2) If 1" (25.4mm) pipe is not available on site, use 1 1/8" (28.58mm) pipe.

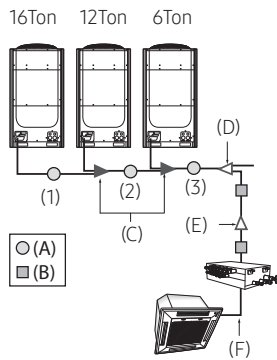
Note3) If 1 1/4" (31.75mm) pipe is not available on site, use 1 3/8" (34.92mm) pipe.

Note4) If 1 1/2" (38.1mm) pipe is not available on site, use 1 5/8" (41.28mm) pipe.

Size of the pipe between the branch joint and the indoor unit

Make a selection according to outdoor unit capacity.

Indoor unit capacity		Pipe Size(O.D)			
		Liquid		Gas	
MBH	KW	mm	inch	mm	inch
~20	~6.0	6.35	1/4	12.7	1/2
24~52	7.1~16.0	9.52	3/8	15.88	5/8
68~78	20.0~23.0	9.52	3/8	19.05	3/4
78~96	23.0~29.0	9.52	3/8	22.22	7/8



9. Installation

Refrigerant pipe installation

Branch joint

- ▶ Branch joint between outdoor units (C)

Classification	Model name	Specification	
		MBH	kW
Liquid/Low pressure Y-joint (C)	MXJ-TA3819M	461 and below	135.2 and below
	MXJ-TA4422M	478 and over	140.2 and over
High pressure Y-joint (C)	MXJ-TA3100M	461 and below	135.2 and below
	MXJ-TA3800M	478 and over	140.2 and over

- ▶ First branch joint (D)

Make a selection according to outdoor unit capacity.

Classification	Model name	Outdoor unit capacity	
		MBH	kW
Liquid/Low pressure Y-joint (D)	MXJ-YA2512M	Over 51 ~ 136 and below	Over 15.0 ~ 40.0 and below
	MXJ-YA2812M	Over 136 ~ 154 and below	Over 40.0 ~ 45.0 and below
	MXJ-YA2815M	Over 154 ~ 240 and below	Over 45.0 ~ 70.3 and below
	MXJ-YA3419M	Over 240 ~ 336 and below	Over 70.3 ~ 98.4 and below
	MXJ-YA4119M	Over 336 ~ 461 and below	Over 98.4 ~ 135.2 and below
	MXJ-YA4422M	Over 461	Over 135.2
High pressure Y-joint (D)	MXJ-YA1500M	76 and below	22.4 and below
	MXJ-YA2500M	Over 76 ~ 240 and below	Over 22.4 ~ 70.3 and below
	MXJ-YA3100M	Over 240 ~ 461 and below	Over 70.3 ~ 135.2 and below
	MXJ-YA3800M	Over 461	Over 135.2

- ▶ Branch joint (E)

Select a branch joint according to the sum of indoor unit capacity which will be connected after the branch.

- Y-joint

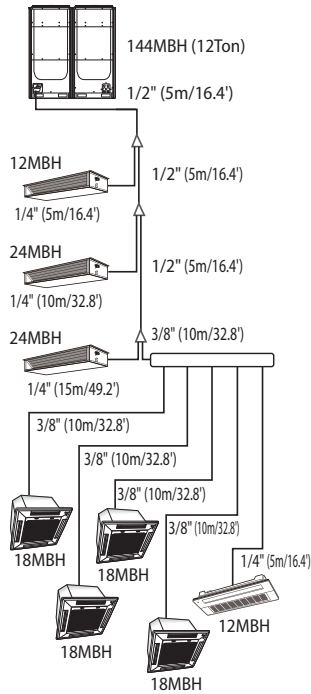
Classification	Model name	Specification	
		MBH	kW
Y-joint (E)	MXJ-YA1509M	51 and below	15.0 and below
	MXJ-YA2512M	Over 51 ~ 136 and below	Over 15.0 ~ 40.0 and below
	MXJ-YA2812M	Over 136 ~ 154 and below	Over 40.0 ~ 45.0 and below
	MXJ-YA2815M	Over 154 ~ 240 and below	Over 45.0 ~ 70.3 and below
	MXJ-YA3419M	Over 240 ~ 336 and below	Over 70.3 ~ 98.4 and below
	MXJ-YA4119M	Over 336 ~ 461 and below	Over 98.4 ~ 135.2 and below
	MXJ-YA4422M	Over 461	Over 135.2
Y-joint (E) (Only H/R)	MXJ-YA1500M	76 and below	22.4 and below
	MXJ-YA2500M	Over 76 ~ 240 and below	Over 22.4 ~ 70.3 and below
	MXJ-YA3100M	Over 240 ~ 461 and below	Over 70.3 ~ 135.2 and below
	MXJ-YA3800M	Over 461	Over 135.2

9. Installation

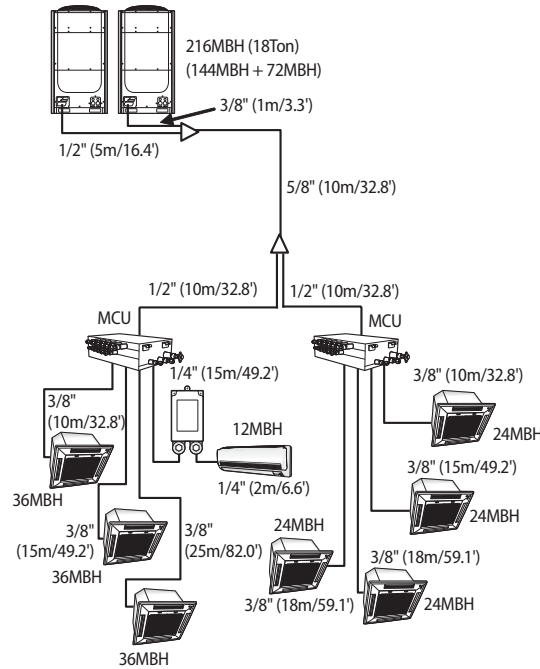
Refrigerant pipe installation

Basic type - additional refrigerant

H/P



H/R



Branch joint

- ▶ Basic amount of refrigerant within the outdoor unit
- Amount of additional refrigerant has to be calculated based on the sum of all liquid pipe length.

Classification	AM072F*	AM096F*	AM120F*	AM144F*	AM168H*	AM192H*
Basic type [kg (lb)]	5.5 (12.1)	7.4 (16.3)	7.4 (16.3)	8.7 (19.2)	11.0 (24.3)	11.0 (24.3)

Classification	AM072K*	AM096K*	AM216KXVGJH	AM216KXVGJR
Basic type [kg (lb)]	8.4 (18.5)	8.4 (18.5)	12.5 (27.6)	14.0 (30.9)

9. Installation

- ▶ Amount of additional refrigerant depending on the pipe size (㉓)
- Amount of additional refrigerant has to be calculated based on the sum of all liquid pipe length.

Size of liquid pipe [mm (inch)]	Ø6.35 (Ø1/4)	Ø9.52 (Ø3/8)	Ø12.70 (Ø1/2)	Ø15.88 (Ø5/8)	Ø19.05 (Ø3/4)	Ø22.23 (Ø7/8)	Ø25.40 (Ø1)
Additional amount [kg/m (lb/ft)]	0.02 (0.013)	0.06 (0.040)	0.125 (0.084)	0.18 (0.121)	0.27 (0.181)	0.35 (0.235)	0.53 (0.356)

- For the indoor unit already connected to EEV kit, the additional refrigerant charging is 0.0067lb per feet regardless of the pipe size.

- ▶ Amount of additional refrigerant for each indoor unit (㉔)

(Unit : kg(lb))

Model	Capacity (kBTU)	5	6	6.3	7	7.5	9	9.5	12	15	18	20	23.2	24	27	28	30	32	36	42	48	54	60	72	76.8	96			
1way cassette (AM***FN1DC*, AM***NN1DCH)						0.25 (0.55)	0.25 (0.55)	0.25 (0.55)																					
4way cassette S (600x600) (AM***KNNDCH*, AM***NNNDCH)							0.29 (0.64)	0.29 (0.64)	0.37 (0.82)	0.37 (0.82)																			
4way cassette S (AM***FN4DC*, AM***NN4DCH)						0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)		
4way cassette S (AM***JN4PC*, AM***JN4DC*)			0.45 (0.99)														1.00 (2.20)	1.00 (2.20)	1.00 (2.20)	1.00 (2.20)	1.00 (2.20)	1.00 (2.20)	1.00 (2.20)	1.00 (2.20)	1.00 (2.20)	1.00 (2.20)	1.00 (2.20)		
360 cassette (AM***KN4DC*)						0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)	0.69 (1.52)		
Floor Standing Unit (AM***JNFDC*, AM***JNGDC*)		0.12 (0.26)					0.22 (0.49)	0.22 (0.49)	0.22 (0.49)	0.22 (0.49)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	0.32 (0.71)	
Slim duct (AM***FN1DC*)						0.35 (0.77)	0.35 (0.77)	0.35 (0.77)	0.35 (0.77)	0.35 (0.77)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	0.42 (0.93)	
MA duct (AM***JNMDC*, AM***JNHDC*)						0.37 (0.82)	0.37 (0.82)	0.37 (0.82)	0.37 (0.82)	0.37 (0.82)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	0.47 (1.04)	
MA duct (AM***JNMPCH*)			0.37 (0.82)								0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	
MSP duct (AM***FNMDCH*)											0.28 (0.62)	0.28 (0.62)	0.28 (0.62)	0.28 (0.62)	0.28 (0.62)	0.28 (0.62)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	0.54 (1.19)	
HSP duct (AM***FNHDC*)																					0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)		
Ceiling (AM***FNDC*, AM***JNCDC*)											0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	0.39 (0.86)	
OAP duct (AM***JNESC*)																								1.18 (2.60)	1.18 (2.60)	1.18 (2.60)	1.18 (2.60)		
Wall mounted (AM***MNVDCH*, AM***MNQDCH)	0.22 (0.49)			0.22 (0.49)			0.25 (0.55)	0.34 (0.75)	0.34 (0.75)	0.34 (0.75)	0.71 (1.57)	0.71 (1.57)	0.71 (1.57)	0.71 (1.57)	0.71 (1.57)	0.71 (1.57)	0.71 (1.57)	0.71 (1.57)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)
Duct S (AM***MNMDCH*, AM***MNHDC*)				0.45 (0.99)			0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.84 (1.85)	0.84 (1.85)	0.84 (1.85)	0.84 (1.85)	0.84 (1.85)	0.84 (1.85)	0.84 (1.85)	0.84 (1.85)	
Duct S (AM***RNMDCH*)			0.45 (0.99)								0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	0.68 (1.50)	
Wind-Free 4way Cassette (AM***RN4DCH)			0.45 (0.99)			0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	0.57 (1.26)	

- ▶ If there is no additional refrigerant value for the indoor unit in the above table, refer to the indoor unit installation manual.
- ▶ Additional refrigerant charging of MCU is 0.5kg (1.1lb) for every MCU kit
- ▶ If AHU Kit is included among the indoor units, add 0.018kg(0.04lb) of refrigerant for every 1MBH of AHU capacity increase.

9. Installation

Refrigerant pipe installation

- ▶ Method to calculate total amount of additional refrigerant
 - Amount of additional refrigerant depending on the pipe length (Ⓐ)
 - Amount of additional refrigerant for each indoor unit (Ⓑ) = Σ (Amount of additional refrigerant for each connected indoor unit) ※ Refer to the table
 - Total amount of additional refrigerant = Ⓐ+Ⓑ
- ※ Sum of total amount of additional refrigerant and the basic amount of refrigerant should not exceed 100kg (220lb). If the refrigerant exceeds 100kg (220lb), separate the module so that weight of the refrigerant doesn't exceed 100kg (220lb).
 Ex.) For AM144×××, basic amount of refrigerant is 8.7kg (19.1lb), therefore total amount of additional refrigerant (Ⓐ+Ⓑ) should not exceed 91.3kg (200.9lb).
- ▶ Example of refrigerant calculation for HP models

Classification	Size of liquid pipe [mm (inch)]	Length [m (ft)]	Unit amount of refrigerant [kg/m (lb/ft)]	Amount of additional refrigerant [kg (lb)]	Total amount of additional refrigerant [kg (lb)]
		①	②	①×②	Σ (①×②)
Liquid pipe (Ⓐ)	Ø6.35 (Ø1/4)	35 (114.8)	0.02 (0.013)	0.7 (1.49)	5.575 (12.19)
	Ø9.52 (Ø3/8)	50 (164.0)	0.06 (0.040)	3.0 (6.56)	
	Ø12.70 (Ø1/2)	15 (49.2)	0.125 (0.084)	1.875 (4.13)	

Classification	Model name of indoor unit	Number of units	Unit amount of refrigerant [kg/EA (lb/EA)]	Amount of additional refrigerant [kg (lb)]	Total amount of additional refrigerant [kg (lb)]
		①	②	①×②	Σ (①×②)
Indoor unit (Ⓑ)	4way cassette (AM018FN4DCH)	4	0.45 (0.99)	1.8 (3.96)	Ⓑ 3.30 (7.26)
	Slim duct (AM024FNLDCH)	2	0.45 (0.99)	0.90 (1.98)	
	Slim duct (AM012FNLDCH)	1	0.35 (0.77)	0.35 (0.77)	
	1way cassette (AM012FN1DCH)	1	0.25 (0.55)	0.25 (0.55)	

- Total amount of refrigerant (Ⓐ+Ⓑ) = 5.575 + 3.30 = 8.875 (kg)
 = 12.19 + 7.26 = 19.45 (lb)

- ▶ Example of refrigerant calculation for HR models

Classification	Size of liquid pipe [mm (inch)]	Length [m (ft)]	Unit amount of refrigerant [kg/m (lb/ft)]	Amount of additional refrigerant [kg (lb)]	Total amount of additional refrigerant [kg (lb)]
		①	②	①×②	Σ (①×②)
Liquid pipe (Ⓐ)	Ø 6.35 (Ø1/4)	15 (49.2)	0.02 (0.013)	0.3 (0.64)	Ⓐ 11.965 (26.24)
	Ø 9.52 (Ø 3/8)	112 (367.5)	0.06 (0.040)	6.72 (14.70)	
	Ø 12.70 (Ø 1/2)	25 (82.0)	0.125 (0.084)	3.125 (6.89)	
	Ø 15.88 (Ø 5/8)	10 (32.8)	0.18 (0.121)	1.8 (3.97)	
	Ø 6.35 (Ø 1/4) (EEV Kit ~ indoor unit)	2 (6.6)	0.01 (0.0067)	0.02 (0.04)	

9. Installation

Classification	Model name of indoor unit	Number of units	Unit amount of refrigerant (kg/EA)	Amount of additional refrigerant (kg)	Total amount of additional refrigerant (kg)
		①	②	①×②	Σ(①×②)
Indoor unit (㉔)	4way cassette (AM024FN4DCX)	4	0.45 (0.99)	1.8 (3.96)	㉔ 5.11 (11.25)
	4way cassette (AM036FN4DCX)	3	0.69 (1.52)	2.07 (4.56)	
	Wall mounted (AM012FNTDCX)	1	0.24 (0.53)	0.24 (0.53)	
	MCU	2	0.50 (1.10)	1 (2.20)	

- Total amount of refrigerant (㉓+㉔) = 11.965+5.11=17.075 (kg)
 = 26.24+11.25=37.49 (lb)

Temper grade and minimum thickness of the refrigerant pipe

Outer diameter		Minimum thickness		Temper grade
mm	inch	mm	inch	
6.35	1/4	0.70	0.028	Annealed
9.52	3/8	0.70	0.028	
12.70	1/2	0.80	0.031	
15.88	5/8	1.00	0.039	
19.05	3/4	0.90	0.035	
22.22	7/8	0.90	0.035	Drawn
25.40	1	1.00	0.039	
28.58	1 1/8	1.10	0.043	
31.75	1 1/4	1.10	0.043	
34.92	1 3/8	1.20	0.047	
38.10	1 1/2	1.35	0.053	
41.28	1 5/8	1.43	0.056	
44.45	1 3/4	1.60	0.063	
50.80	2	2.00	0.079	
53.98	2 1/8	2.10	0.083	



• For pipes larger than Ø 3/4" (Ø 19.05mm), drawn type (C1220T-1/2H or C1220T-H) type copper pipe must be used. If a annealed type (C1220T-O) copper pipe is used, pipe may break due to its low pressure resistance and cause personal injury.

9. Installation

Refrigerant pipe installation

Pipe installation between the outdoor units

- ▶ You will need branch joints, which is an optional accessory, for connecting in between outdoor units in order to combine outdoor units in module.
- ※ **For optimal distribution of the refrigerant, you must use Y-joint as branch joint for connecting outdoor units. (Do not use T-joint)**
- ▶ When you install the outdoor units in module, there is no restriction of installation order among outdoor units.
- ▶ Height of the connection pipe should be same or lower than the ones connected to the outdoor units.
- ▶ Check the changes in comparison with the DVM II and III.

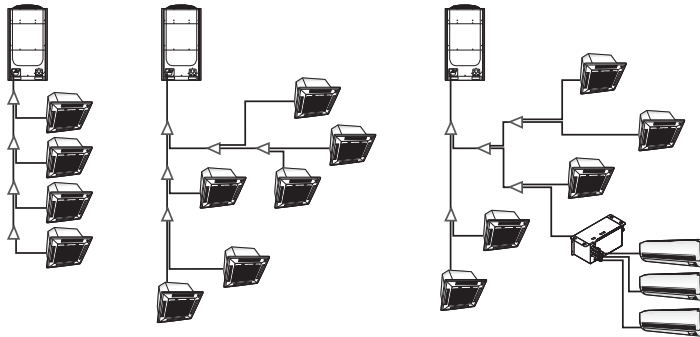
Caution	Correct installation	Incorrect installation
Refrigerant pipes should be connected at the same or lower level than the ones connected to the outdoor unit.		
Refrigerant pipes must be connected by the side of the product.	<p>Straight section should be 300mm (12inch) or more</p>	
Branch joint between outdoor units must be installed horizontally.		
When the piping length between outdoor unit and the branch joint exceeds 2m (6.56ft), install a vertical trap as show in the figu e.	<p>200 (8)~300mm (12inch) 1m (3.28ft) less Over 2m (6.56ft)</p>	<p>Over 2m (6.56ft)</p>

9. Installation

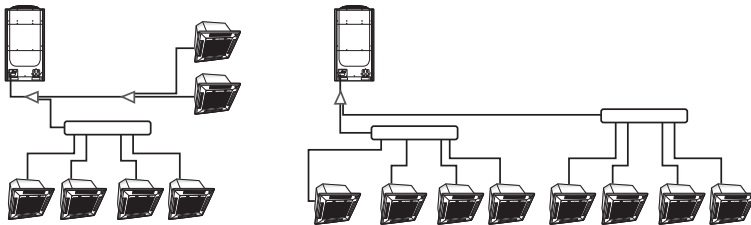
Examples of refrigerant pipe installation

H/P

1. Using Y-joint

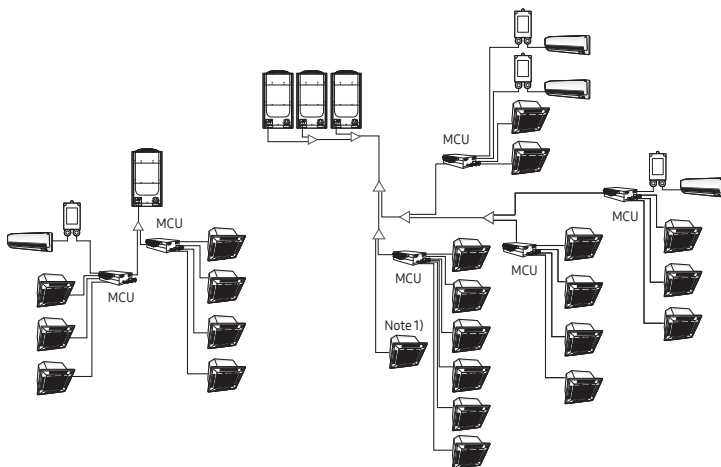


2. Using distribution header



H/R

1. Using Y-joint



Note 1) Direct-connected indoor unit without MCU (for HR only)

- This indoor unit can only be used for cooling operation. (Heating operation is not possible.)
- Connect indoor unit to liquid and low pressure gas pipe.
- Change the installation option for direct-connected indoor unit without MCU. (refer to the indoor unit installation manual)

9. Installation

Refrigerant pipe installation

Allowable length of the refrigerant pipe and the installation examples

H/P

Classification	Single Installation	Module installation
Installing only with Y-joint		
Installing with Y-joint and distribution header		
Installing only with distribution header		

Classification				Example		Remarks
Maximum allowable length of pipe	Outdoor unit ~ Indoor unit	Actual length (Equivalent length)	200 m (656') and below [220 m (722') and below]	Installing only with Y-joint	$a+b+c+d+e+f+g+p \leq 200 \text{ m (220 m) / 656' (722')}$	Equivalent length Y-joint: 0.5 m (1.64'), Distribution header: 1 m (3.28')
				Installing with Y-joint and distribution header	$a+b+h \leq 200 \text{ m (220 m) / 656' (722')}$, $a+i+k \leq 200 \text{ m (220 m) / 656' (722')}$	
				Installing only with distribution header	$a+i \leq 200 \text{ m (220 m) / 656' (722')}$	
	Total length of pipe (m)	1000 m (3281') or less		Installing only with Y-joint	$a+b+c+d+e+f+g+h+i+j+k+l+m+n+p \leq 1000 \text{ m}$	
				Installing with Y-joint and distribution header	$a+b+c+d+e+f+g+h+i+j+k \leq 1000 \text{ m (3281')}$	
				Installing only with distribution header	$a+b+c+d+e+f+g+h+i \leq 1000 \text{ m (3281')}$	
Outdoor unit ~ Outdoor unit (Module installation)	Pipe length	10 m (33') or less	$x \leq 10 \text{ m (33')}, y \leq 10 \text{ m (33')}, z \leq 10 \text{ m (33')}$			
	Equivalent length	13 m (43') or less	$x \leq 13 \text{ m (43')}, y \leq 13 \text{ m (43')}, z \leq 13 \text{ m (43')}$			
Maximum allowable height difference of pipe	Outdoor unit ~ Indoor unit	110/110 m (361'/361') ^{Note 2)}		$H1 \leq 110/110 \text{ m (361'/361')}$		
	Indoor unit ~ Indoor unit	50 m (164')		$H2 \leq 50 \text{ m (164')}$		
		But, when AM***HNQDC* is installed, H2 is 15 m (49') or less.				

9. Installation

Classification			Example		Remarks	
Maximum allowable length after branch joint	First branch joint ~ Farthest Indoor unit	Pipe length	45m (148') or less	Installing only with Y-joint	$b+c+d+e+f+g+p \leq 45\text{m (148')}$	-
				Installing with Y-joint and distribution header	$i+k \leq 45\text{m (148')}$	
			Installing only with distribution header	$i \leq 45\text{m (148')}$		
		45m~90m (148'~295') <small>Note 1)</small>	Required conditions must be satisfied		-	

EEV kit		Model name		Remarks	
EEV Kit ~ Indoor unit	Actual pipe length	2 m(6.6') or less	MEV-E24SA	1 indoor	Apply to products without EEV(Wall mounted & ceiling)
			MEV-E32SA		
		20 m(66') or less	MXD-E24K132A	2 indoor	
			MXD-E24K200A		
			MXD-E32K200A		
			MXD-E24K232A	3 indoor	
			MXD-E24K300A		
			MXD-E32K224A		
MXD-E32K300A					

* Please refer to the EEV Kit manual.

Note 1) Required condition

Classification	Condition	Example
First branch joint ~ Farthest Indoor unit	$45\text{ m (148')} \leq b+c+d+e+f+g+p \leq 90\text{ m (295')}$: branch pipes (b, c, d, e, f, g) size must be increased by 1 grade	
Total length of extended pipe	If the size of pipe (main pipe), between the first branch joint and the outdoor unit, is not increased by 1 grade, $a+(b+c+d+e+f+g) \times 2+h+i+j+k+l+m+n+p \leq 1000\text{ m (3281')}$ If the size of pipe (main pipe), between the first branch joint and the outdoor unit, is increased by 1 grade, $a+(b+c+d+e+f+g) \times 2+h+i+j+k+l+m+n+p \leq 1000\text{ m (3281')}$	
Each Y-joint ~ Each indoor unit	$h, i, j, \dots, p \leq 45\text{ m (148')}$	
Difference between the distance of the outdoor unit to the farthest indoor unit and nearest indoor unit $\leq 45\text{ m (148')}$, $(a+b+c+d+e+f+g+p)-(a+h) \leq 45\text{ m (148')}$		

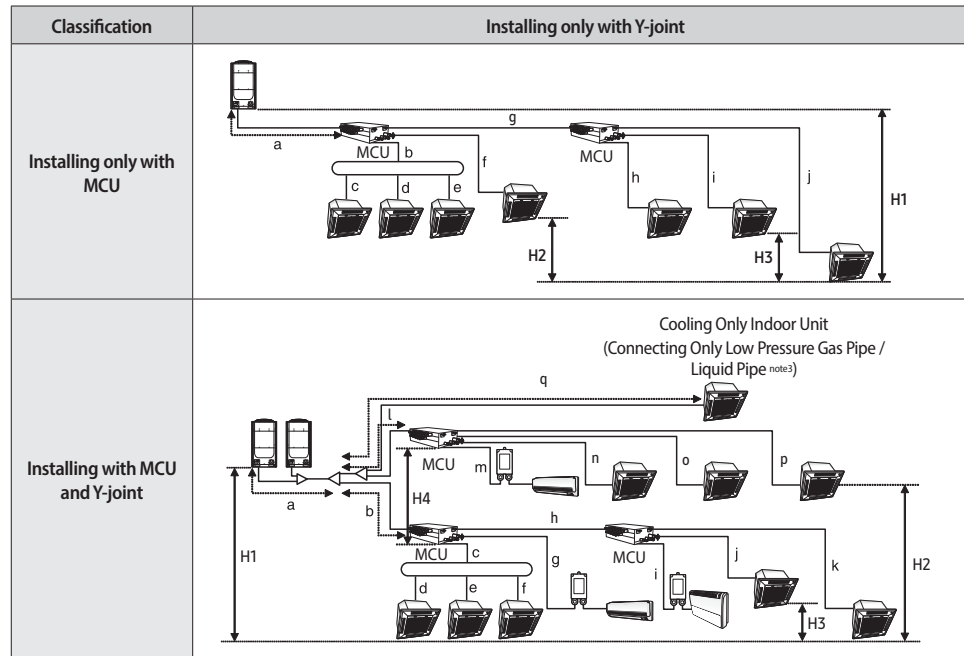
Note 2) When indoor unit is located at higher level than outdoor unit, allowable height difference is 110 m(361'), (If the height difference is over 40 m(131'), contact your local dealer for more information.) but when the indoor unit is located at lower level than outdoor unit, allowable height difference is 110 m (361') (If the height difference is over 50 m(164'), need to decide whether to install PDM kit or not.)

Model name of the PDM kit : MXD-A38K2A, MXD-A12K2A, MXD-A58K2A

9. Installation

Refrigerant pipe installation

H/R



Classification				Example		Remarks
Maximum allowable pipe length	Outdoor unit ~ Indoor unit	Actual pipe length (Equivalent length)	200 m or less (220 m or less) /656(722)	Installing only with MCU	$a+g+j \leq 200 \text{ m (220 m)/656(722)}$	Equivalent length • Y-joint: 0.5 m(1.64) • Distribution header: 1 m(3.28) • MCU: 1 m(3.28)
		Total length of pipe	1000 m(3281) or less	Installing with MCU and Y-joint	$a+b+h+k \leq 200 \text{ m (220 m)/656(722)}$	
	Outdoor unit ~ Indoor unit	Pipe length	10 m(33') or less	Installing only with MCU	$a+b+c+d+e+f+g+h+i+j \leq 1000 \text{ m(3281)}$	
		Equivalent length	13 m(43') or less	Installing with MCU and Y-joint	$a+b+c+\dots+q \leq 1000 \text{ m(3281)}$	
	MCU ~ Indoor unit	Pipe length	45 m(148') or less	Installing only with MCU	$b+c \leq 45 \text{ m(148')}, b+d \leq 45 \text{ m(148')},$ $b+e \leq 45 \text{ m(148')}, f \leq 45 \text{ m(148')},$ $g+h \leq 45 \text{ m(148')}, g+i \leq 45 \text{ m(148')},$ $g+j \leq 45 \text{ m(148')}$	
				Installing with MCU and Y-joint	$c+d \leq 45 \text{ m(148')}, c+e \leq 45 \text{ m(148')},$ $c+f \leq 45 \text{ m(148')}, g \leq 45 \text{ m(148')},$ $h+i \leq 45 \text{ m(148')}, h+j \leq 45 \text{ m(148')},$ $h+k \leq 45 \text{ m(148')}, m \leq 45 \text{ m(148')},$ $n \leq 45 \text{ m(148')}, o \leq 45 \text{ m(148')}, p \leq 45 \text{ m(148')}$	

9. Installation

Classification			Example		Remarks
Maximum allowable height difference	Outdoor unit ~ Indoor unit	Pipe length	110 m / 110 m (361/361) ^{Note 1)}	H1 ≤ 110 m / 110 m (361/361)	
	Indoor unit ~ Indoor unit		40 m (131') or less	H2 ≤ 40 m (131')	
	Indoor unit ~ Indoor unit (in one MCU)		15 m (49') or less	H3 ≤ 15 m (49')	
	MCU ~ MCU		30 m (98') or less	H4 ≤ 30 m (98')	
			But, when AM***HNQDC* is installed, H2 is 15 m (49') or less.		
Maximum allowable length after branch joint	First branch joint ~ Farthest Indoor unit	Pipe length	45 m (148') or less	Installing only with MCU	$g+j \leq 45 \text{ m (148')}$
			45 ~ 90 m (148'~295') <small>Note 2)</small>	Installing with MCU and Y-joint	$b+h+k \leq 45 \text{ m (148')}$ $l+p \leq 45 \text{ m (148')}$
			Required conditions must be satisfied		

Distribution kit			Model	Remarks
From distribution kit to indoor unit	Actual pipe length	2 m (6.6') or less	MEV-245A (For 1 indoor unit)	Applied to products without EEV (wall-mounted)

Note 1) When indoor unit is located at higher level than outdoor unit, allowable height difference is 110 m (361'), (If the height difference is over 40 m (131'), contact your local dealer for more information.) but when the indoor unit is located at lower level than outdoor unit, allowable height difference is 110 m (361') (If the height difference is over 50m (164'), need to decide whether to install PDM kit or not.)
Model name of the PDM kit : MXD-A38K2A, MXD-A12K2A, MXD-A58K2A

Note 2) Required condition

Classification	Condition	Example
First branch joint ~ Farthest Indoor unit	$45 \text{ m} \leq b+h+k, l+m+q, l+r \leq 90 \text{ m (295')}$: Size of the branch liquid and low pressure gas pipes (b, l, m) must be increased by 1 grade.	
Total length of extended pipe	If the size of pipe (main pipe), between the first branch joint and the outdoor unit, is not increased by 1 grade, $a+(b+l+m) \times 2+c+d+e+f+g+h+i+j+k+n+o+p+q+r \leq 1000 \text{ m (3281')}$ If the size of pipe (main pipe), between the first branch joint and the outdoor unit, is increased by 1 grade, $(a+b+l+m) \times 2+c+d+e+f+g+h+i+j+k+n+o+p+q+r \leq 1000 \text{ m (3281')}$	
MCU ~ Each indoor unit	$c+d, c+e, c+f, g, h+i, h+j, h+k, n, o, p, q, r \leq 45 \text{ m (148')}$	
Difference between the distance of the outdoor unit to the farthest indoor unit and nearest indoor unit $\leq 45 (a+b+h+k) - (a+b+c+d) \leq 45 \text{ m (148')}$		

Note 3) For indoor units to which no MCU is connected, be sure to set their options to "Cooling only indoor unit," and then connect them to a low pressure gas pipe and a liquid pipe. Be sure to combine the cooling only indoor units so that their total capacity becomes 50% or less of the total capacity of all indoor units.

Note 4) In case of connecting more than one indoor unit in one MCU Port, the below indoor units cannot be combined. ERV plus (AM***NK*C**), OAP duct (AM***NE*C*), Hydro Unit HE (AM***NBDC*), Hydro Unit HT (AM***NBFC*), AHU kit (MXD-K***AN, MCM-D***N)

Note 5) In case of connecting two MCU ports with Y-joint, the indoor units cannot be combined to more than one.

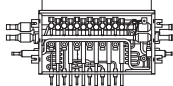
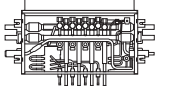
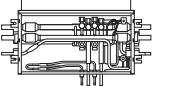

* Total refrigerant amount of the system must be less than 100 kg (220 lb). If total refrigerant amount of system is over than 100 kg (220 lb), the system has to be divided into smaller system, each less than 100 kg (220 lb).

9. Installation

Refrigerant pipe installation

Installing the MCU

MCU specification

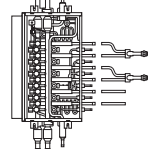
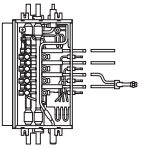
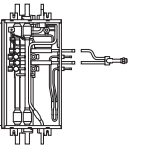
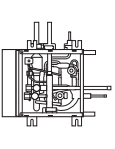
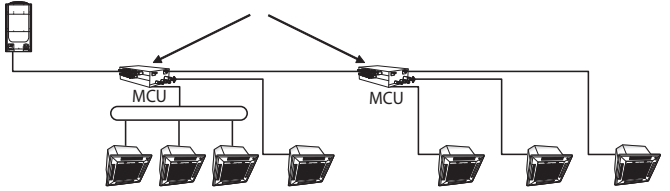




Model	MCU-S6NEK2N	MCU-S4NEK3N	MCU-S2NEK2N	MCU-S1NEK1N
Exterior of MCU				
Number of connectable indoor units at one port	Up to 8 units	Up to 8 units	Up to 8 units	Up to 8 units
The maximum capacity of the connectable indoor units at one port	16 kW (54MBH)	16 kW (54MBH)	16 kW (54MBH)	16 kW (54MBH)
The maximum capacity of the connectable indoor units	61.6 kW (210MBH)	61.6 kW (210MBH)	32 kW (109MBH)	32 kW (109MBH)
Internal EEV	Not included			



• Indoor units without internal EEV(AM***HNQDC*) can not be connected directly to the MCU.

CAUTION • Please connect these indoor units using EEV kit(MEV-E**SA, MXD-E***K**A).

Installing the indoor units

Model	MCU-S6NEK2N	MCU-S4NEK3N	MCU-S2NEK2N	MCU-S1NEK1N
Example installing (Each port connection)				
Example installing (MCU series connection)				
Installing indoor units	<p>Under 16 kW (54MBH) kW indoor unit : Don't use Y-connector 16 kW (54MBH) ~ 28 kW (96MBH) indoor unit : Use Y-connector at the Gas & Liquid line</p> <p>If you want to continuous cooling operation under -5°C (23°F), set outdoor 'Expand operational temperature range for cooling operation (HR only)'; and use Y-connector on 5 kW (17MBH) ~ 16 kW (54MBH) indoor unit</p> <p>In case of using Y-connector, it is only connectable for port combination at below Connectable port combination for Y-connector : A + B port, C + D port, E + F port Non-connectable port combination for Y-connector : B + C port, D + E port, non-continuous port</p> <p>Set Dip Switch option for using Y-connector</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>S/W Option</p>  <p>Default</p> </div> <div style="text-align: center;"> <p>S/W Option</p>  <p>Combination of A+B port</p> </div> <div style="text-align: center;"> <p>S/W Option</p>  <p>Combination of C+D port</p> </div> <div style="text-align: center;"> <p>S/W Option</p>  <p>Combination of E+F port</p> </div> </div> <p>In case of MCU connection in series, the maximum capacity of indoor units in MCU series connection is 61.6 kW (210MBH)</p>			<p>This unit is only connectable for one port under 16 kW (54MBH)</p> <p>This unit is impossible to connect MCU to MCU in series.</p>

10. AHRI Data

Model	Rated Capacity (Btu/h)		EER (Btu/h / W)		IEER (Btu/h / W)		High COP (47F) (W/W)		Low COP (17F) (W/W)		SCHE (Btu/h / W)	
	Cooling	Heating	Non-Ducted	Ducted	Non-Ducted	Ducted	Non-Ducted	Ducted	Non-Ducted	Ducted	Non-Ducted	Ducted
AM072FXVAFH	69,000	77,000	13.0	11.0	29.7	20.7	3.71	3.46	2.73	2.45	-	-
AM072FXVAJH	69,000	77,000	13.0	11.0	29.7	20.7	3.71	3.46	2.73	2.73	-	-
AM096FXVAFH	92,000	103,000	12.7	11.9	28.6	24.5	3.86	3.63	2.65	2.65	-	-
AM096FXVAJH	92,000	103,000	12.7	11.9	28.6	24.5	3.86	3.63	2.65	2.65	-	-
AM120FXVAFH	114,000	129,000	11.4	11.2	29.3	22.4	3.48	3.38	2.54	2.55	-	-
AM120FXVAJH	114,000	129,000	11.4	11.2	29.3	22.4	3.48	3.38	2.54	2.54	-	-
AM144FXVAFH	138,000	154,000	11.5	10.8	23.9	21.0	3.81	3.44	2.55	2.55	-	-
AM144FXVAJH	138,000	154,000	11.5	10.8	23.9	21.0	3.81	3.44	2.55	2.55	-	-
AM168HXVAFH	160,000	180,000	11.6	10.6	23.8	20.2	3.57	3.45	2.47	2.47	-	-
AM168HXVAJH	160,000	180,000	11.6	10.6	23.8	20.2	3.57	3.45	2.47	2.47	-	-
AM192HXVAFH	184,000	206,000	11.1	10.6	20.5	20.0	3.61	3.32	2.53	2.53	-	-
AM192HXVAJH	184,000	206,000	11.1	10.6	20.5	20.0	3.61	3.32	2.53	2.53	-	-
AM216JXVAFH	206,000	230,000	10.6	10.6	22.6	21.2	3.77	3.54	2.56	2.56	-	-
AM216JXVAJH	206,000	230,000	10.6	10.6	22.6	21.2	3.77	3.54	2.56	2.56	-	-
AM216KXVGJH	206,000	230,000	11.0	10.7	24.5	22.3	3.82	3.62	2.70	2.70	-	-
AM240JXVAFH	228,000	258,000	10.8	10.6	23.0	20.1	3.65	3.45	2.50	2.50	-	-
AM240JXVAJH	228,000	258,000	10.8	10.6	23.0	20.1	3.65	3.45	2.50	2.50	-	-
AM264JXVAFH	252,000	282,000	10.7	9.8	22.5	19.6	3.56	3.30	2.44	2.44	-	-
AM264JXVAJH	252,000	282,000	10.7	9.8	22.5	19.6	3.56	3.30	2.44	2.44	-	-
AM288JXVAFH	276,000	308,000	11.0	9.6	22.6	20.0	3.54	3.30	2.46	2.46	-	-
AM288JXVAJH	276,000	308,000	11.0	9.6	22.6	20.0	3.54	3.30	2.46	2.46	-	-
AM312JXVAFH	298,000	334,000	10.8	9.6	21.6	18.6	3.50	3.24	2.49	2.49	-	-
AM312JXVAJH	298,000	334,000	10.8	9.6	21.6	18.6	3.50	3.24	2.49	2.49	-	-
AM336JXVAFH	320,000	360,000	10.6	9.5	21.5	18.0	3.46	3.20	2.49	2.49	-	-
AM336JXVAJH	320,000	360,000	10.6	9.5	21.5	18.0	3.46	3.20	2.49	2.49	-	-
AM360JXVAFH	344,000	386,000	10.3	9.5	23.0	17.5	3.45	3.20	2.49	2.49	-	-
AM360JXVAJH	344,000	386,000	10.3	9.5	23.0	17.5	3.45	3.20	2.49	2.49	-	-
AM384JXVAFH	366,000	410,000	10.0	9.5	21.5	17.1	3.40	3.20	2.45	2.45	-	-
AM384JXVAJH	366,000	410,000	10.0	9.5	21.5	17.1	3.40	3.20	2.45	2.45	-	-
AM408JXVAFH	390,000	436,000	9.8	9.5	21.0	16.4	3.30	3.20	2.40	2.40	-	-
AM408JXVAJH	390,000	436,000	9.8	9.5	21.0	16.4	3.30	3.20	2.40	2.40	-	-
AM408KXVGJH	390,000	436,000	9.8	9.5	21.0	16.4	3.30	3.20	2.40	2.40	-	-
AM432JXVAFH	416,000	460,000	9.8	9.5	21.0	16.4	3.20	3.20	2.40	2.40	-	-
AM432JXVAJH	416,000	460,000	9.8	9.5	21.0	16.4	3.20	3.20	2.40	2.40	-	-
AM432KXVGJH	416,000	460,000	9.8	9.5	21.0	16.4	3.30	3.20	2.40	2.40	-	-
AM456JXVAFH	436,000	490,000	9.7	9.5	20.5	16.4	3.20	3.20	2.35	2.35	-	-
AM456JXVAJH	436,000	490,000	9.7	9.5	20.5	16.4	3.20	3.20	2.35	2.35	-	-
AM480JXVAFH	456,000	510,000	9.6	9.5	20.0	16.2	3.20	3.20	2.30	2.30	-	-
AM480JXVAJH	456,000	510,000	9.6	9.5	20.0	16.2	3.20	3.20	2.30	2.30	-	-
AM504JXVAFH	480,000	536,000	9.5	9.5	19.1	16.2	3.20	3.20	2.30	2.30	-	-
AM504JXVAJH	480,000	536,000	9.5	9.5	19.1	16.2	3.20	3.20	2.30	2.30	-	-
AM528JXVAFH	500,000	560,000	9.5	9.5	19.0	16.0	3.20	3.20	2.25	2.25	-	-
AM528JXVAJH	500,000	560,000	9.5	9.5	19.0	16.0	3.20	3.20	2.25	2.25	-	-

10. AHRI Data

Model	Rated Capacity (Btu/h)		EER (Btu/h / W)		IEER (Btu/h / W)		High COP (47F) (W/W)		Low COP (17F) (W/W)		SCHE (Btu/h / W)	
	Cooling	Heating	Non-Ducted	Ducted	Non-Ducted	Ducted	Non-Ducted	Ducted	Non-Ducted	Ducted	Non-Ducted	Ducted
AM072FXVAFR	69,000	77,000	13.0	11.0	29.7	20.7	3.71	3.46	2.73	2.73	24.7	24.2
AM072FXVAJR	69,000	77,000	13.0	11.0	29.7	20.7	3.71	3.46	2.73	2.73	24.7	24.2
AM096FXVAFR	92,000	103,000	12.7	11.9	28.6	24.5	3.86	3.63	2.65	2.65	26.8	24.8
AM096FXVAJR	92,000	103,000	12.7	11.9	28.6	24.5	3.86	3.63	2.65	2.65	26.8	24.8
AM120FXVAFR	114,000	129,000	11.4	11.2	29.3	22.4	3.48	3.38	2.54	2.54	25.4	24.1
AM120FXVAJR	114,000	129,000	11.4	11.2	29.3	22.4	3.48	3.38	2.54	2.54	25.4	24.1
AM144FXVAFR	138,000	154,000	11.5	10.8	23.9	21.0	3.81	3.44	2.55	2.55	23.1	23.7
AM144FXVAJR	138,000	154,000	11.5	10.8	23.9	21.0	3.81	3.44	2.55	2.55	23.1	23.7
AM168HXVAFR	160,000	180,000	11.6	10.6	23.8	20.2	3.57	3.45	2.47	2.47	22.3	22.8
AM168HXVAJR	160,000	180,000	11.6	10.6	23.8	20.2	3.57	3.45	2.47	2.47	22.3	22.8
AM192HXVAFR	184,000	206,000	11.1	10.6	20.5	20.0	3.61	3.32	2.53	2.53	21.9	21.4
AM192HXVAJR	184,000	206,000	11.1	10.6	20.5	20.0	3.61	3.32	2.53	2.53	21.9	21.4
AM216JXVAFR	206,000	230,000	10.6	10.6	22.6	21.2	3.77	3.54	2.56	2.56	22.7	21.8
AM216JXVAJR	206,000	230,000	10.6	10.6	22.6	21.2	3.77	3.54	2.56	2.56	22.7	21.8
AM216KXVGJR	206,000	230,000	11.0	10.7	24.5	22.3	3.82	3.62	2.70	2.70	25.8	23.7
AM240JXVAFR	228,000	258,000	10.8	10.6	23.0	20.1	3.65	3.45	2.50	2.50	20.2	18.6
AM240JXVAJR	228,000	258,000	10.8	10.6	23.0	20.1	3.65	3.45	2.50	2.50	20.2	18.6
AM264JXVAFR	252,000	282,000	10.7	9.8	22.5	19.6	3.56	3.30	2.44	2.44	20.3	18.6
AM264JXVAJR	252,000	282,000	10.7	9.8	22.5	19.6	3.56	3.30	2.44	2.44	20.3	18.6
AM288JXVAFR	276,000	308,000	11.0	9.6	22.6	20.0	3.54	3.30	2.46	2.46	20.5	20.3
AM288JXVAJR	276,000	308,000	11.0	9.6	22.6	20.0	3.54	3.30	2.46	2.46	20.5	20.3
AM312JXVAFR	298,000	334,000	10.8	9.6	21.6	18.6	3.50	3.24	2.49	2.49	21.2	18.6
AM312JXVAJR	298,000	334,000	10.8	9.6	21.6	18.6	3.50	3.24	2.49	2.49	21.2	18.6
AM336JXVAFR	320,000	360,000	10.6	9.5	21.5	18.0	3.46	3.20	2.49	2.49	20.8	18.6
AM336JXVAJR	320,000	360,000	10.6	9.5	21.5	18.0	3.46	3.20	2.49	2.49	20.8	18.6
AM360JXVAFR	344,000	386,000	10.3	9.5	23.0	17.5	3.45	3.20	2.49	2.49	20.2	17.9
AM360JXVAJR	344,000	386,000	10.3	9.5	23.0	17.5	3.45	3.20	2.49	2.49	20.2	17.9
AM384JXVAFR	366,000	410,000	10.0	9.5	21.5	17.1	3.40	3.20	2.45	2.45	19.8	17.3
AM384JXVAJR	366,000	410,000	10.0	9.5	21.5	17.1	3.40	3.20	2.45	2.45	19.8	17.3
AM408JXVAFR	390,000	436,000	9.8	9.5	21.0	16.4	3.30	3.20	2.40	2.40	19.8	17.3
AM408JXVAJR	390,000	436,000	9.8	9.5	21.0	16.4	3.30	3.20	2.40	2.40	19.8	17.3
AM408KXVGJR	390,000	436,000	9.8	9.5	21.0	16.4	3.30	3.20	2.40	2.40	21.8	19.1
AM432JXVAFR	416,000	460,000	9.8	9.5	21.0	16.4	3.20	3.20	2.40	2.40	19.4	18.0
AM432JXVAJR	416,000	460,000	9.8	9.5	21.0	16.4	3.20	3.20	2.40	2.40	19.4	18.0
AM432KXVGJR	416,000	460,000	9.8	9.5	21.0	16.4	3.30	3.20	2.40	2.40	21.2	19.0
AM456JXVAFR	436,000	490,000	9.7	9.5	20.5	16.4	3.20	3.20	2.35	2.35	19.4	18.0
AM456JXVAJR	436,000	490,000	9.7	9.5	20.5	16.4	3.20	3.20	2.35	2.35	19.4	18.0
AM480JXVAFR	456,000	510,000	9.6	9.5	20.0	16.2	3.20	3.20	2.30	2.30	19.4	18.0
AM480JXVAJR	456,000	510,000	9.6	9.5	20.0	16.2	3.20	3.20	2.30	2.30	19.4	18.0
AM504JXVAFR	480,000	536,000	9.5	9.5	19.1	16.2	3.20	3.20	2.30	2.30	18.0	18.0
AM504JXVAJR	480,000	536,000	9.5	9.5	19.1	16.2	3.20	3.20	2.30	2.30	18.0	18.0
AM528JXVAFR	500,000	560,000	9.5	9.5	19.0	16.0	3.20	3.20	2.25	2.25	17.1	17.5
AM528JXVAJR	500,000	560,000	9.5	9.5	19.0	16.0	3.20	3.20	2.25	2.25	17.1	17.5

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