

SAMSUNG

VRF

Technical Data Book

DVM S for LA
(R410A, 460V, 60Hz, CO)



Model : Cooling Only Type (AM***MXVAJC/AZ)

History

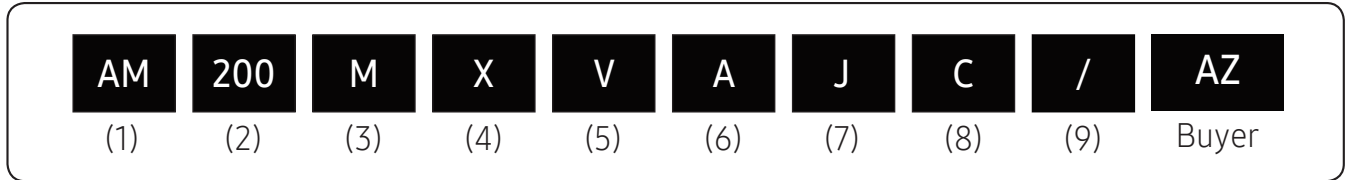
Version	Modification	Date	Remark
Ver. 1.0	Release DVM S (R410A, 460V, 60Hz, CO) for LA TDB	19.05.31	



Nomenclature

Outdoor Unit

Model Name



(1) Classification

AM	DVM
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(2) Capacity

x1/10 HP (3 digits)

(3) Version

F	2013
H	2014
J	2015
K	2016
M	2017

(4) Product Type

X	Outdoor Unit
N	Indoor Unit

(5) Feature 1

V	Inverter
M	DVM S Eco

(6) Feature 2

A	Standard + General Temp.+ Module
H	High EER + Low Temp. + Module
G	High EER + General Temp. + Module
D	Standard + General Temp. + Non-Module

(7) Rating Voltage

C	1Ø, 208~230V, 60Hz
F	3Ø, 208~230V, 60Hz
J	3Ø, 460V, 60Hz

(8) Mode

H	Heat Pump
R	Heat Recovery
C	Cooling Only

(9) Category

A	Anti Corrosion (Corrosion Resistance)
/	Non Anti Corrosion

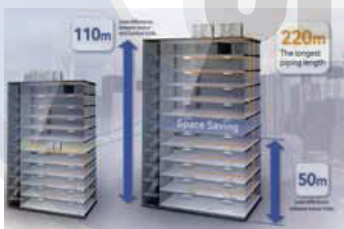
Features & Benefits



Samsung's VRF system air conditioners offer instant temperature control, user-friendly installation and advanced functionality, along with smart power usage. Our flagship VRF-based Samsung DVM S is a highly innovative system that adopts the new third-generation Samsung Scroll Compressor (SSC) technology with Dual Digital Inverter.

DVM S provides world-class energy efficiency and the most powerful cooling and heating performance available on the market. This ideal air conditioning system accommodates all variable environments, including large commercial or residential buildings.

Samsung DVM S offers innovative features to benefit the indoor comfort as well operational costs of the system through technological advances such as:



Extended Piping Length Limits

Allows extended piping length of up to 220 m, and units will still give a great performance over wide areas. With this technology, installation is available with a maximum height level of 110 m, which is equivalent to 20 stories (each story is considered 5 m high).



Smart management

Further improves system's energy efficiency due to precise indoor climate control. Web-based remote monitoring and management system allows quick and easy HVAC control and breakdown alert.

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1. Combination Table

Cooling Only

System Model			Capacity of Single Unit (HP)											
														
Capa	CODE	No. of Modules	8	10	12	14	16	18	20	22	24	26	28	30
8HP	AM080MXVAJC/AZ	1	1											
10HP	AM100MXVAJC/AZ	1		1										
12HP	AM120MXVAJC/AZ	1			1									
14HP	AM140MXVAJC/AZ	1				1								
16HP	AM160MXVAJC/AZ	1					1							
18HP	AM180MXVAJC/AZ	1						1						
20HP	AM200MXVAJC/AZ	1							1					
22HP	AM220MXVAJC/AZ	1								1				
24HP	AM240MXVAJC/AZ	1									1			
26HP	AM260MXVAJC/AZ	1										1		
28HP	AM280MXVAJC/AZ	1											1	
30HP	AM300MXVAJC/AZ	1												1
32HP	AM320MXVAJC2AZ	2		1						1				
34HP	AM340MXVAJC2AZ	2			1					1				
36HP	AM360MXVAJC2AZ	2				1				1				
38HP	AM380MXVAJC2AZ	2					1			1				
40HP	AM400MXVAJC2AZ	2						1		1				
42HP	AM420MXVAJC2AZ	2							1	1				
44HP	AM440MXVAJC2AZ	2								2				
46HP	AM460MXVAJC2AZ	2						1					1	
48HP	AM480MXVAJC2AZ	2							1				1	
50HP	AM500MXVAJC2AZ	2								1			1	
52HP	AM520MXVAJC2AZ	2								1				1
54HP	AM540MXVAJC2AZ	2									1			1
56HP	AM560MXVAJC2AZ	2										1		1
58HP	AM580MXVAJC2AZ	2											1	1
60HP	AM600MXVAJC2AZ	2												2
62HP	AM620MXVAJC2AZ	3			1					1			1	
64HP	AM640MXVAJC2AZ	3			1					1				1
66HP	AM660MXVAJC2AZ	3				1				1				1
68HP	AM680MXVAJC2AZ	3						1		1			1	
70HP	AM700MXVAJC2AZ	3						1		1				1
72HP	AM720MXVAJC2AZ	3								2			1	
74HP	AM740MXVAJC2AZ	3								2				1
76HP	AM760MXVAJC2AZ	3						1					1	1
78HP	AM780MXVAJC2AZ	3						1						2
80HP	AM800MXVAJC2AZ	3								1			1	1

NOTE

- Make sure to use an indoor unit that is compatible with DVM S.
- Indoor units can be connected within the range indicated in following table.
- If the total capacity of the connected indoor units exceeds the indicated maximum capacity, cooling and heating capacity of the indoor unit may decrease.
- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity.
 $0.5 \times \Sigma(\text{Outdoor unit capacity}) \leq \text{Total capacity of the connected indoor units} \leq 1.3 \times \Sigma(\text{Outdoor unit capacity})$
- ※ You can connect maximum 64 indoor units to the outdoor unit. Maximum quantity of connectable indoor unit is set to 64 since outdoor unit only support up to 64 communication address. Indoor unit address can be assigned from 0~63. If the indoor unit address was assigned from 64~79, E201 error will occur.
- ※ Maximum 32 Wall-mount type indoor units with EEV (AM****NQDEH***, AM***JNVDKH***) can be connected.

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM080MXVAJC/AZ	AM100MXVAJC/AZ	AM120MXVAJC/AZ	AM140MXVAJC/AZ	
Outdoor unit module 1			-	-	-	-	
Outdoor unit module 2			-	-	-	-	
Outdoor unit module 3			-	-	-	-	
Outdoor unit module 4			-	-	-	-	
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60	
Mode			-	COOLING ONLY	COOLING ONLY	COOLING ONLY	
Performance	HP	HP	8	10	12	14	
	Capacity	Cooling	kW	22.4	28.0	33.6	40.0
			Btu/h	76,400	95,500	114,600	136,500
			US RT	6.37	7.96	9.55	11.37
Maximum number of connectable indoor units			EA	14	18	21	
Total capacity of the connected Indoor Units			Min.	kW	11.2	14.0	16.8
			Max.	kW	29.1	36.4	43.7
Power	Power Input	Cooling	kW	4.98	6.36	8.62	10.08
	Current Input	Cooling	A	6.90	8.90	12.00	14.10
	Current	MCA	A	15.8	19.8	21.8	24.0
		MFA	A	25	25	32	32
Efficiency	EER	Cooling	W/W	4.50	4.40	3.90	3.97
			Btu/Wh	15.3	15.0	13.3	13.5
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
		Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
Heat Exchanger	Type	-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube	
	Material	Fin	-	Al	Al	Al	Al
		Tube	-	Cu	Cu	Cu	Cu
	Fin Treatment	-	Anti-corrosion	Anti-corrosion	Anti-corrosion	Anti-corrosion	
Compressor	Type	-	Inverter Scroll x1	Inverter Scroll x1	Inverter Scroll x1	Inverter Scroll x1	
	Output	kWxn	5.18 x1	5.18 x1	6.39 x1	6.39 x1	
	Model Name	-	DS-GB052FAV* x1	DS-GB052FAV* x1	DS-GB066FAV* x1	DS-GB066FAV* x1	
	Oil	Type	-	PVE	PVE	PVE	PVE
Initial charge		ccxn	1,100 x1	1,100 x1	1,100 x1	1,100 x1	
Fan	Type	-	Propeller	Propeller	Propeller	Propeller	
	Discharge direction	-	Top	Top	Top	Top	
	Quantity	EA	1	1	1	2	
	Air Flow Rate	m ³ /min		170	170	220	255
		l/s		2,833	2,833	3,667	4,250
	External Static Pressure	Max.	mmAq	8	8	8	8
Pa			78.45	78.45	78.45	78.45	
Fan Motor	Type	-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	
	Output	Wxn	630 x1	630 x1	630 x1	620 x2	
Piping Connections	Liquid Pipe	Type	Braze connection	Braze connection	Braze connection	Braze connection	
		Ø, mm (inch)	9.52 (3/8)	9.52 (3/8)	12.70 (1/2)	12.70 (1/2)	
	Gas Pipe	Type	Braze connection	Braze connection	Braze connection	Braze connection	
		Ø, mm (inch)	19.05 (3/4)	22.22 (7/8)	28.58 (1-1/8)	28.58 (1-1/8)	
	Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	200[220]
	Piping length (1st Branch-IDU)	Max.	m	90	90	90	90
	Total piping length (System)	Max.	m	1,000	1,000	1,000	1,000
	Level difference (ODU in highest position)	Max.	m	110	110	110	110
	Level difference (IDU in highest position)	Max.	m	110	110	110	110
Level difference (IDU-IDU)	Max.	m	50	50	50	50	

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM080MXVAJC/AZ	AM100MXVAJC/AZ	AM120MXVAJC/AZ	AM140MXVAJC/AZ	
	Outdoor unit module 1		-	-	-	-	
	Outdoor unit module 2		-	-	-	-	
	Outdoor unit module 3		-	-	-	-	
	Outdoor unit module 4		-	-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	5.5	5.5	5.5	7.7
Sound	Sound Pressure	Cooling	dB(A)	57	61	62	61
	Sound Power		dB(A)	77	80	81	81
External Dimension	Net Weight		kg	188.0	188.0	193.0	233.0
	Shipping Weight		kg	200.0	200.0	205.0	252.0
	Net Dimensions (WxHxD)		mm	880 x 1,695 x 765	880 x 1,695 x 765	880 x 1,695 x 765	1,295 x 1,695 x 765
	Shipping Dimensions (WxHxD)		mm	948 x 1,887 x 832	948 x 1,887 x 832	948 x 1,887 x 832	1,363 x 1,887 x 832
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
 - When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S		
Model Name			AM160MXVAJC/AZ	AM180MXVAJC/AZ	AM200MXVAJC/AZ	AM220MXVAJC/AZ		
Outdoor unit module 1			-	-	-	-		
Outdoor unit module 2			-	-	-	-		
Outdoor unit module 3			-	-	-	-		
Outdoor unit module 4			-	-	-	-		
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60		
Mode			-	COOLING ONLY	COOLING ONLY	COOLING ONLY		
Performance	HP	HP	16	18	20	22		
	Capacity	Cooling	kW	45.0	50.4	56.0	61.6	
			Btu/h	153,500	172,000	191,100	210,200	
			US RT	12.80	14.33	15.92	17.52	
Maximum number of connectable indoor units			EA	29	32	36	40	
Total capacity of the connected Indoor Units			Min.	kW	22.5	25.2	28.0	30.8
			Max.	kW	58.5	65.5	72.8	80.1
Power	Power Input	Cooling	kW	12.10	14.20	16.62	19.68	
	Current Input	Cooling	A	16.90	19.80	23.20	27.50	
	Current	MCA	A	27.8	34.0	36.6	38.8	
		MFA	A	40	50	50	50	
Efficiency	EER	Cooling	W/W	3.72	3.55	3.37	3.13	
			Btu/Wh	12.7	12.1	11.5	10.7	
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
		Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
Heat Exchanger	Type	-	-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube	
	Material	Fin	-	Al	Al	Al	Al	
		Tube	-	Cu	Cu	Cu	Cu	
	Fin Treatment	-	-	Anti-corrosion	Anti-corrosion	Anti-corrosion	Anti-corrosion	
Compressor	Type	-	-	Inverter Scroll x1	Inverter Scroll x1	Inverter Scroll x2	Inverter Scroll x2	
	Output	-	kWxn	7.81 x1	7.81 x1	5.18 x2	5.18 x2	
	Model Name	-	-	DS4GJ5080FV* x1	DS4GJ5080FV* x1	DS-GB052FAV* x2	DS-GB052FAV* x2	
	Oil	Type	-	-	PVE	PVE	PVE	PVE
Initial charge		-	ccxn	1,400 x1	1,400 x1	1,100 x2	1,100 x2	
Fan	Type	-	-	Propeller	Propeller	Propeller	Propeller	
	Discharge direction	-	-	Top	Top	Top	Top	
	Quantity	-	EA	2	2	2	2	
	Air Flow Rate	-	m ³ /min	255	290	290	290	
		-	l/s	4,250	4,833	4,833	4,833	
External Static Pressure	Max.	-	mmAq	8	8	8	8	
		-	Pa	78.45	78.45	78.45	78.45	
Fan Motor	Type	-	-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	
	Output	-	Wxn	620 x2	620 x2	620 x2	620 x2	
Piping Connections	Liquid Pipe	Type	-	Braze connection	Braze connection	Braze connection	Braze connection	
		Ø, mm (inch)	-	12.70 (1/2)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	
	Gas Pipe	Type	-	Braze connection	Braze connection	Braze connection	Braze connection	
		Ø, mm (inch)	-	28.58 (1-1/8)	28.58 (1-1/8)	28.58 (1-1/8)	28.58 (1-1/8)	
	Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	200[220]	
	Piping length (1st Branch-IDU)	Max.	m	90	90	90	90	
	Total piping length (System)	Max.	m	1,000	1,000	1,000	1,000	
	Level difference (ODU in highest position)	Max.	m	110	110	110	110	
Level difference (IDU in highest position)	Max.	m	110	110	110	110		
Level difference (IDU-IDU)	Max.	m	50	50	50	50		

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM160MXVAJC/AZ	AM180MXVAJC/AZ	AM200MXVAJC/AZ	AM220MXVAJC/AZ	
	Outdoor unit module 1		-	-	-	-	
	Outdoor unit module 2		-	-	-	-	
	Outdoor unit module 3		-	-	-	-	
	Outdoor unit module 4		-	-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	8.4	8.4	8.4	8.4
Sound	Sound Pressure	Cooling	dB(A)	63	64	65	65
	Sound Power		dB(A)	83	84	87	89
External Dimension	Net Weight		kg	260.0	260.0	288.0	288.0
	Shipping Weight		kg	279.0	279.0	307.0	307.0
	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	1,295 x 1,695 x 765
	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	1,363 x 1,887 x 832
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under.
(If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S		
Model Name			AM240MXVAJC/AZ	AM260MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ		
Outdoor unit module 1			-	-	-	-		
Outdoor unit module 2			-	-	-	-		
Outdoor unit module 3			-	-	-	-		
Outdoor unit module 4			-	-	-	-		
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60		
Mode			-	COOLING ONLY	COOLING ONLY	COOLING ONLY		
Performance	HP	HP	24	26	28	30		
	Capacity	Cooling	kW	67.2	72.8	78.6	84.0	
			Btu/h	229,300	248,400	268,200	286,600	
			US RT	19.11	20.70	22.35	23.88	
Maximum number of connectable indoor units			EA	43	47	51		
Total capacity of the connected Indoor Units			Min.	kW	33.6	36.4	39.3	
			Max.	kW	87.4	94.6	102.2	109.2
Power	Power Input	Cooling	kW	17.87	21.41	23.39	26.33	
	Current Input	Cooling	A	24.90	29.90	32.60	36.70	
	Current	MCA	A	44.6	52.2	56.6	56.6	
		MFA	A	50	63	63	63	
Efficiency	EER	Cooling	W/W	3.76	3.40	3.36	3.19	
			Btu/Wh	12.8	11.6	11.5	10.9	
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
		Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
Heat Exchanger	Type	-	-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube	
	Material	Fin	-	Al	Al	Al	Al	
		Tube	-	Cu	Cu	Cu	Cu	
	Fin Treatment	-	-	Anti-corrosion	Anti-corrosion	Anti-corrosion	Anti-corrosion	
Compressor	Type	-	-	Inverter Scroll x 2	Inverter Scroll x 2	Inverter Scroll x 2	Inverter Scroll x 2	
	Output	-	kW x n	6.39 x 2	6.39 x 2	6.76 x 2	7.81 x 2	
	Model Name	-	-	DS-GB066FAV* x 2	DS-GB066FAV* x 2	DS-GB070FAV* x 2	DS4GJ5080FV* x 2	
	Oil	Type	-	-	PVE	PVE	PVE	PVE
Initial charge		-	cc x n	1,100 x 2	1,100 x 2	1,100 x 2	1,400 x 2	
Fan	Type	-	-	Propeller	Propeller	Propeller	Propeller	
	Discharge direction	-	-	Top	Top	Top	Top	
	Quantity	-	EA	2	2	2	2	
	Air Flow Rate	-	m ³ /min	320	320	340	340	
		-	l/s	5,333	5,333	5,667	5,667	
	External Static Pressure	Max.	mmAq	8	8	8	8	
Pa			78.45	78.45	78.45	78.45		
Fan Motor	Type	-	-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	
	Output	-	W x n	620 x 2	620 x 2	620 x 2	620 x 2	
Piping Connections	Liquid Pipe	Type	-	Braze connection	Braze connection	Braze connection	Braze connection	
		Ø, mm (inch)	-	15.88 (5/8)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	
	Gas Pipe	Type	-	Braze connection	Braze connection	Braze connection	Braze connection	
		Ø, mm (inch)	-	34.92 (1-3/8)	34.92 (1-3/8)	34.92 (1-3/8)	34.92 (1-3/8)	
	Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	200[220]	
	Piping length (1st Branch-IDU)	Max.	m	90	90	90	90	
	Total piping length (System)	Max.	m	1,000	1,000	1,000	1,000	
	Level difference (ODU in highest position)	Max.	m	110	110	110	110	
Level difference (IDU in highest position)	Max.	m	110	110	110	110		
Level difference (IDU-IDU)	Max.	m	50	50	50	50		

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM240MXVAJC/AZ	AM260MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ	
	Outdoor unit module 1		-	-	-	-	
	Outdoor unit module 2		-	-	-	-	
	Outdoor unit module 3		-	-	-	-	
	Outdoor unit module 4		-	-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	12.5	12.5	12.5	12.5
Sound	Sound Pressure	Cooling	dB(A)	67	67	69	69
	Sound Power		dB(A)	89	89	90	90
External Dimension	Net Weight		kg	330.0	338.0	343.0	350.0
	Shipping Weight		kg	352.0	360.0	365.0	372.0
	Net Dimensions (WxHxD)		mm	1,295 x 1,795 x 765	1,295 x 1,795 x 765	1,295 x 1,795 x 765	1,295 x 1,795 x 765
	Shipping Dimensions (WxHxD)		mm	1,363 x 1,987 x 832	1,363 x 1,987 x 832	1,363 x 1,987 x 832	1,363 x 1,987 x 832
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under.
(If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S
Model Name			AM320MXVAJC2AZ	AM340MXVAJC2AZ	AM360MXVAJC2AZ	AM380MXVAJC2AZ
	Outdoor unit module 1		AM100MXVAJC/AZ	AM120MXVAJC/AZ	AM140MXVAJC/AZ	AM160MXVAJC/AZ
	Outdoor unit module 2		AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ
	Outdoor unit module 3		-	-	-	-
	Outdoor unit module 4		-	-	-	-
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60
Mode			-	COOLING ONLY	COOLING ONLY	COOLING ONLY
Performance	HP	HP	32	34	36	38
	Capacity	kW	89.6	95.2	101.6	106.6
		Btu/h	305,700	324,800	346,700	363,700
		US RT	25.48	27.07	28.89	30.31
Maximum number of connectable indoor units			EA	58	61	64
Total capacity of the connected Indoor Units			Min.	kW	44.8	47.6
			Max.	kW	116.5	123.8
Power	Power Input	Cooling	kW	26.04	28.30	29.76
	Current Input	Cooling	A	36.40	39.50	41.60
	Current	MCA	A	-	-	-
		MFA	A	-	-	-
	Efficiency	EER	Cooling	W/W	3.44	3.36
Btu/Wh				11.7	11.5	11.6
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
		Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
Heat Exchanger	Type	-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
	Fin Treatment	-	Anti-corrosion	Anti-corrosion	Anti-corrosion	Anti-corrosion
Compressor	Type	-	Inverter Scroll x 3	Inverter Scroll x 3	Inverter Scroll x 3	Inverter Scroll x 3
	Output	kWxn	(5.18 x 1) x 1 + (5.18 x 2) x 1	(6.39 x 1) x 1 + (5.18 x 2) x 1	(6.39 x 1) x 1 + (5.18 x 2) x 1	(7.81 x 1) x 1 + (5.18 x 2) x 1
	Model Name	-	(DS-GB052FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 1	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 1	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 1	(DS4GJ5080FV* x 1) x 1 + (DS-GB052FAV* x 2) x 1
	Oil	Type	-	PVE	PVE	PVE
Initial charge		ccxn	(1,100 x 1) x 1 + (1,100 x 2) x 1	(1,100 x 1) x 1 + (1,100 x 2) x 1	(1,100 x 1) x 1 + (1,100 x 2) x 1	(1,400 x 1) x 1 + (1,100 x 2) x 1
Fan	Type	-	Propeller	Propeller	Propeller	Propeller
	Discharge direction	-	Top	Top	Top	Top
	Quantity	EA	3	3	4	4
	Air Flow Rate	m³/min	170 x 1 + 290 x 1	220 x 1 + 290 x 1	255 x 1 + 290 x 1	255 x 1 + 290 x 1
		l/s	2,833 x 1 + 4,833 x 1	3,667 x 1 + 4,833 x 1	4,250 x 1 + 4,833 x 1	4,250 x 1 + 4,833 x 1
	External Static Pressure	Max.	mmAq	8	8	8
Pa			78.45	78.45	78.45	
Fan Motor	Type	-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
	Output	Wxn	(630 x 1) x 1 + (620 x 2) x 1	(630 x 1) x 1 + (620 x 2) x 1	(620 x 2) x 2	(620 x 2) x 2
Piping Connections	Liquid Pipe	Type	-	Braze connection	Braze connection	Braze connection
		Ø, mm (inch)	-	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)
	Gas Pipe	Type	-	Braze connection	Braze connection	Braze connection
		Ø, mm (inch)	-	34.92 (1-3/8)	34.92 (1-3/8)	41.28 (1-5/8)
	Heat Insulation	-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]
	Piping length (1st Branch-IDU)	Max.	m	90	90	90
	Total piping length (System)	Max.	m	1,000	1,000	1,000
	Level difference (ODU in highest position)	Max.	m	110	110	110
Level difference (IDU in highest position)	Max.	m	110	110	110	
Level difference (IDU-IDU)	Max.	m	50	50	50	

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM320MXVAJC2AZ	AM340MXVAJC2AZ	AM360MXVAJC2AZ	AM380MXVAJC2AZ	
	Outdoor unit module 1		AM100MXVAJC/AZ	AM120MXVAJC/AZ	AM140MXVAJC/AZ	AM160MXVAJC/AZ	
	Outdoor unit module 2		AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	
	Outdoor unit module 3		-	-	-	-	
	Outdoor unit module 4		-	-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	5.5 x1 + 8.4 x1	5.5 x1 + 8.4 x1	7.7 x1 + 8.4 x1	8.4 x2
Sound	Sound Pressure	Cooling	dB(A)	66	67	66	67
	Sound Power		dB(A)	90	90	90	90
External Dimension	Net Weight		kg	188.0 x1 + 288.0 x1	193.0 x1 + 288.0 x1	233.0 x1 + 288.0 x1	260.0 x1 + 288.0 x1
	Shipping Weight		kg	200.0 x1 + 307.0 x1	205.0 x1 + 307.0 x1	252.0 x1 + 307.0 x1	279.0 x1 + 307.0 x1
	Net Dimensions (WxHxD)		mm	(880 x1,695 x 765) x1 + (1,295 x1,695 x 765) x1	(880 x1,695 x 765) x1 + (1,295 x1,695 x 765) x1	(1,295 x1,695 x 765) x2	(1,295 x1,695 x 765) x2
	Shipping Dimensions (WxHxD)		mm	(948 x1,887 x 832) x1 + (1,363 x1,887 x 832) x1	(948 x1,887 x 832) x1 + (1,363 x1,887 x 832) x1	(1,363 x1,887 x 832) x2	(1,363 x1,887 x 832) x2
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
 - When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S		
Model Name			AM400MXVAJC2AZ	AM420MXVAJC2AZ	AM440MXVAJC2AZ	AM460MXVAJC2AZ		
	Outdoor unit module 1		AM180MXVAJC/AZ	AM200MXVAJC/AZ	AM220MXVAJC/AZ	AM180MXVAJC/AZ		
	Outdoor unit module 2		AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM280MXVAJC/AZ		
	Outdoor unit module 3		-	-	-	-		
	Outdoor unit module 4		-	-	-	-		
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60		
Mode			-	COOLING ONLY	COOLING ONLY	COOLING ONLY		
Performance	HP	HP	40	42	44	46		
	Capacity	Cooling	kW	112.0	117.6	123.2	129.0	
			Btu/h	382,200	401,300	420,400	440,200	
			US RT	31.85	33.44	35.03	36.68	
Maximum number of connectable indoor units			EA	64	64	64		
Total capacity of the connected Indoor Units			Min.	kW	56.0	58.8	61.6	64.5
			Max.	kW	145.6	152.9	160.2	167.7
Power	Power Input	Cooling	kW	33.88	36.30	39.36	37.59	
	Current Input	Cooling	A	47.30	50.70	55.00	52.40	
	Current	MCA	A	-	-	-	-	
		MFA	A	-	-	-	-	
Efficiency	EER	Cooling	W/W	3.31	3.24	3.13	3.43	
			Btu/Wh	11.3	11.1	10.7	11.7	
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
		Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
Heat Exchanger	Type	-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube		
	Material	Fin	-	Al	Al	Al	Al	
		Tube	-	Cu	Cu	Cu	Cu	
	Fin Treatment	-	Anti-corrosion	Anti-corrosion	Anti-corrosion	Anti-corrosion		
Compressor	Type	-	Inverter Scroll x 3	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 3		
	Output	kW x n	(781 x 1) x 1 + (518 x 2) x 1	(518 x 2) x 2	(518 x 2) x 2	(781 x 1) x 1 + (676 x 2) x 1		
	Model Name	-	(DS4GJ5080FV* x 1) x 1 + (DS-GB052FAV* x 2) x 1	(DS-GB052FAV* x 2) x 2	(DS-GB052FAV* x 2) x 2	(DS4GJ5080FV* x 1) x 1 + (DS-GB070FAV* x 2) x 1		
	Oil	Type	-	PVE	PVE	PVE	PVE	
Initial charge		cc x n	(1,400 x 1) x 1 + (1,100 x 2) x 1	(1,100 x 2) x 2	(1,100 x 2) x 2	(1,400 x 1) x 1 + (1,100 x 2) x 1		
Fan	Type	-	Propeller	Propeller	Propeller	Propeller		
	Discharge direction	-	Top	Top	Top	Top		
	Quantity	EA	4	4	4	4		
	Air Flow Rate	m³/min	290 x 2	290 x 2	290 x 2	290 x 1 + 340 x 1		
		l/s	4,833 x 2	4,833 x 2	4,833 x 2	4,833 x 1 + 5,667 x 1		
	External Static Pressure	Max.	mmAq	8	8	8	8	
Pa			78.45	78.45	78.45	78.45		
Fan Motor	Type	-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor		
	Output	W x n	(620 x 2) x 2	(620 x 2) x 2	(620 x 2) x 2	(620 x 2) x 2		
Piping Connections	Liquid Pipe	Type	Braze connection	Braze connection	Braze connection	Braze connection		
		Φ, mm (inch)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)		
	Gas Pipe	Type	Braze connection	Braze connection	Braze connection	Braze connection		
		Φ, mm (inch)	41.28 (1-5/8)	41.28 (1-5/8)	41.28 (1-5/8)	41.28 (1-5/8)		
	Heat Insulation	-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes		
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	200[220]	
	Piping length (1st Branch-IDU)	Max.	m	90	90	90	90	
	Total piping length (System)	Max.	m	1,000	1,000	1,000	1,000	
	Level difference (ODU in highest position)	Max.	m	110	110	110	110	
	Level difference (IDU in highest position)	Max.	m	110	110	110	110	
Level difference (IDU-IDU)	Max.	m	50	50	50	50		

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM400MXVAJC2AZ	AM420MXVAJC2AZ	AM440MXVAJC2AZ	AM460MXVAJC2AZ	
	Outdoor unit module 1		AM180MXVAJC/AZ	AM200MXVAJC/AZ	AM220MXVAJC/AZ	AM180MXVAJC/AZ	
	Outdoor unit module 2		AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM280MXVAJC/AZ	
	Outdoor unit module 3		-	-	-	-	
	Outdoor unit module 4		-	-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	8.4 x 2	8.4 x 2	8.4 x 2	8.4 x 1 + 12.5 x 1
Sound	Sound Pressure	Cooling	dB(A)	68	68	68	70
	Sound Power		dB(A)	90	91	92	91
External Dimension	Net Weight		kg	260.0 x 1 + 288.0 x 1	288.0 x 2	288.0 x 2	260.0 x 1 + 343.0 x 1
	Shipping Weight		kg	279.0 x 1 + 307.0 x 1	307.0 x 2	307.0 x 2	279.0 x 1 + 365.0 x 1
	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	(1,295 x 1,695 x 765) x 1 + (1,295 x 1,795 x 765) x 1
	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	(1,363 x 1,887 x 832) x 1 + (1,363 x 1,987 x 832) x 1
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
 - When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S		
Model Name			AM480MXVAJC2AZ	AM500MXVAJC2AZ	AM520MXVAJC2AZ	AM540MXVAJC2AZ		
	Outdoor unit module 1		AM200MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM240MXVAJC/AZ		
	Outdoor unit module 2		AM280MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ	AM300MXVAJC/AZ		
	Outdoor unit module 3		-	-	-	-		
	Outdoor unit module 4		-	-	-	-		
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60		
Mode			-	COOLING ONLY	COOLING ONLY	COOLING ONLY		
Performance	HP	HP	48	50	52	54		
	Capacity	Cooling	kW	134.6	140.2	145.6	151.2	
			Btu/h	459,300	478,400	496,800	515,900	
			US RT	38.27	39.87	41.40	42.99	
Maximum number of connectable indoor units			EA	64	64	64		
Total capacity of the connected Indoor Units			Min.	kW	67.3	70.1	72.8	75.6
			Max.	kW	175.0	182.3	189.3	196.6
Power	Power Input	Cooling	kW	40.01	43.07	46.01	44.20	
	Current Input	Cooling	A	55.80	60.10	64.20	61.60	
	Current	MCA	A	-	-	-	-	
		MFA	A	-	-	-	-	
Efficiency	EER	Cooling	W/W	3.36	3.26	3.16	3.42	
			Btu/Wh	11.5	11.1	10.8	11.7	
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
		Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
Heat Exchanger	Type	-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube		
	Material	Fin	-	Al	Al	Al	Al	
		Tube	-	Cu	Cu	Cu	Cu	
	Fin Treatment	-	Anti-corrosion	Anti-corrosion	Anti-corrosion	Anti-corrosion		
Compressor	Type	-	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 4		
	Output	kWxn	(5.18 x 2) x 1 + (6.76 x 2) x 1	(5.18 x 2) x 1 + (6.76 x 2) x 1	(5.18 x 2) x 1 + (7.81 x 2) x 1	(6.39 x 2) x 1 + (7.81 x 2) x 1		
	Model Name	-	(DS-GB052FAV* x 2) x 1 + (DS-GB070FAV* x 2) x 1	(DS-GB052FAV* x 2) x 1 + (DS-GB070FAV* x 2) x 1	(DS-GB052FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1	(DS-GB066FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1		
	Oil	Type	-	PVE	PVE	PVE	PVE	
	Initial charge	ccxn	(1,100 x 2) x 2	(1,100 x 2) x 2	(1,100 x 2) x 1 + (1,400 x 2) x 1	(1,100 x 2) x 1 + (1,400 x 2) x 1		
Fan	Type	-	Propeller	Propeller	Propeller	Propeller		
	Discharge direction	-	Top	Top	Top	Top		
	Quantity	EA	4	4	4	4		
	Air Flow Rate	m³/min	290 x 1 + 340 x 1	290 x 1 + 340 x 1	290 x 1 + 340 x 1	320 x 1 + 340 x 1		
		l/s	4,833 x 1 + 5,667 x 1	4,833 x 1 + 5,667 x 1	4,833 x 1 + 5,667 x 1	5,333 x 1 + 5,667 x 1		
External Static Pressure	Max.	mmAq	8	8	8	8		
		Pa	78.45	78.45	78.45	78.45		
Fan Motor	Type	-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor		
	Output	Wxn	(620 x 2) x 2	(620 x 2) x 2	(620 x 2) x 2	(620 x 2) x 2		
Piping Connections	Liquid Pipe	Type	Braze connection	Braze connection	Braze connection	Braze connection		
		Φ, mm (inch)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)		
	Gas Pipe	Type	Braze connection	Braze connection	Braze connection	Braze connection		
		Φ, mm (inch)	41.28 (1-5/8)	41.28 (1-5/8)	41.28 (1-5/8)	41.28 (1-5/8)		
	Heat Insulation	-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes		
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	200[220]	
	Piping length (1st Branch-IDU)	Max.	m	90	90	90	90	
	Total piping length (System)	Max.	m	1,000	1,000	1,000	1,000	
	Level difference (ODU in highest position)	Max.	m	110	110	110	110	
Level difference (IDU in highest position)	Max.	m	110	110	110	110		
Level difference (IDU-IDU)	Max.	m	50	50	50	50		

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM480MXVAJC2AZ	AM500MXVAJC2AZ	AM520MXVAJC2AZ	AM540MXVAJC2AZ	
	Outdoor unit module 1		AM200MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM240MXVAJC/AZ	
	Outdoor unit module 2		AM280MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ	AM300MXVAJC/AZ	
	Outdoor unit module 3		-	-	-	-	
	Outdoor unit module 4		-	-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	8.4 x1 + 12.5 x1	8.4 x1 + 12.5 x1	8.4 x1 + 12.5 x1	12.5 x 2
Sound	Sound Pressure	Cooling	dB(A)	70	70	70	71
	Sound Power		dB(A)	92	93	93	93
External Dimension	Net Weight		kg	288.0 x1 + 343.0 x1	288.0 x1 + 343.0 x1	288.0 x1 + 350.0 x1	330.0 x1 + 350.0 x1
	Shipping Weight		kg	307.0 x1 + 365.0 x1	307.0 x1 + 365.0 x1	307.0 x1 + 372.0 x1	352.0 x1 + 372.0 x1
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x1 + (1,295 x 1,795 x 765) x1	(1,295 x 1,695 x 765) x1 + (1,295 x 1,795 x 765) x1	(1,295 x 1,695 x 765) x1 + (1,295 x 1,795 x 765) x1	(1,295 x 1,795 x 765) x2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x1 + (1,363 x 1,987 x 832) x1	(1,363 x 1,887 x 832) x1 + (1,363 x 1,987 x 832) x1	(1,363 x 1,887 x 832) x1 + (1,363 x 1,987 x 832) x1	(1,363 x 1,987 x 832) x2
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
 - When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S		
Model Name			AM560MXVAJC2AZ	AM580MXVAJC2AZ	AM600MXVAJC2AZ	AM620MXVAJC2AZ		
	Outdoor unit module 1		AM260MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ	AM120MXVAJC/AZ		
	Outdoor unit module 2		AM300MXVAJC/AZ	AM300MXVAJC/AZ	AM300MXVAJC/AZ	AM220MXVAJC/AZ		
	Outdoor unit module 3		-	-	-	AM280MXVAJC/AZ		
	Outdoor unit module 4		-	-	-	-		
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60		
Mode			-	COOLING ONLY	COOLING ONLY	COOLING ONLY		
Performance	HP	HP	56	58	60	62		
	Capacity	Cooling	kW	156.8	162.6	168.0	173.8	
			Btu/h	535,000	554,800	573,200	593,000	
			USRT	44.59	46.23	47.77	49.42	
Maximum number of connectable indoor units			EA	64	64	64		
Total capacity of the connected Indoor Units			Min.	kW	78.4	81.3	84.0	86.9
			Max.	kW	203.8	211.4	218.4	225.9
Power	Power Input	Cooling	kW	47.74	49.72	52.66	51.69	
	Current Input	Cooling	A	66.60	69.30	73.40	72.10	
	Current	MCA	A	-	-	-	-	
		MFA	A	-	-	-	-	
Efficiency	EER	Cooling	W/W	3.28	3.27	3.19	3.36	
			Btu/Wh	11.2	11.2	10.9	11.5	
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
		Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
Heat Exchanger	Type	-	-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube	
	Material	Fin	-	Al	Al	Al	Al	
		Tube	-	Cu	Cu	Cu	Cu	
	Fin Treatment	-	-	Anti-corrosion	Anti-corrosion	Anti-corrosion	Anti-corrosion	
Compressor	Type	-	-	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 4	Inverter Scroll x 5	
	Output	kWxn	(6.39 x 2) x 1 + (7.81 x 2) x 1	(6.76 x 2) x 1 + (7.81 x 2) x 1	(7.81 x 2) x 2	(6.39 x 1) x 1 + (5.18 x 2) x 1 + (6.76 x 2) x 1		
	Model Name	-	(DS-GB066FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1	(DS-GB070FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1	(DS4GJ5080FV* x 2) x 2	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 1 + (DS-GB070FAV* x 2) x 1		
	Oil	Type	-	PVE	PVE	PVE	PVE	
Initial charge		ccxn	(1,100 x 2) x 1 + (1,400 x 2) x 1	(1,100 x 2) x 1 + (1,400 x 2) x 1	(1,400 x 2) x 2	(1,100 x 1) x 1 + (1,100 x 2) x 2		
Fan	Type	-	-	Propeller	Propeller	Propeller	Propeller	
	Discharge direction	-	-	Top	Top	Top	Top	
	Quantity	EA	4	4	4	5		
	Air Flow Rate	m³/min	320 x 1 + 340 x 1	340 x 2	340 x 2	220 x 1 + 290 x 1 + 340 x 1		
		l/s	5,333 x 1 + 5,667 x 1	5,667 x 2	5,667 x 2	3,667 x 1 + 4,833 x 1 + 5,667 x 1		
	External Static Pressure	Max.	mmAq	8	8	8	8	
Pa			78.45	78.45	78.45	78.45		
Fan Motor	Type	-	-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	
	Output	Wxn	(620 x 2) x 2	(620 x 2) x 2	(620 x 2) x 2	(630 x 1) x 1 + (620 x 2) x 2		
Piping Connections	Liquid Pipe	Type	-	Braze connection	Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	22.22 (7/8)		
	Gas Pipe	Type	-	Braze connection	Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)	41.28 (1-5/8)	41.28 (1-5/8)	41.28 (1-5/8)	53.98 (2-1/8)		
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	200[220]	
	Piping length (1st Branch-IDU)	Max.	m	90	90	90	90	
	Total piping length (System)	Max.	m	1,000	1,000	1,000	1,000	
	Level difference (ODU in highest position)	Max.	m	110	110	110	110	
	Level difference (IDU in highest position)	Max.	m	110	110	110	110	
Level difference (IDU-IDU)	Max.	m	50	50	50	50		

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM560MXVAJC2AZ	AM580MXVAJC2AZ	AM600MXVAJC2AZ	AM620MXVAJC2AZ	
	Outdoor unit module 1		AM260MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ	AM120MXVAJC/AZ	
	Outdoor unit module 2		AM300MXVAJC/AZ	AM300MXVAJC/AZ	AM300MXVAJC/AZ	AM220MXVAJC/AZ	
	Outdoor unit module 3		-	-	-	AM280MXVAJC/AZ	
	Outdoor unit module 4		-	-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	12.5 x 2	12.5 x 2	12.5 x 2	5.5 x 1 + 8.4 x 1 + 12.5 x 1
Sound	Sound Pressure	Cooling	dB(A)	71	72	72	71
	Sound Power		dB(A)	93	93	93	93
External Dimension	Net Weight		kg	338.0 x 1 + 350.0 x 1	343.0 x 1 + 350.0 x 1	350.0 x 2	193.0 x 1 + 288.0 x 1 + 343.0 x 1
	Shipping Weight		kg	360.0 x 1 + 372.0 x 1	365.0 x 1 + 372.0 x 1	372.0 x 2	205.0 x 1 + 307.0 x 1 + 365.0 x 1
	Net Dimensions (WxHxD)		mm	(1,295 x 1,795 x 765) x 2	(1,295 x 1,795 x 765) x 2	(1,295 x 1,795 x 765) x 2	(880 x 1,695 x 765) x 1 + (1,295 x 1,695 x 765) x 1 + (1,295 x 1,795 x 765) x 1
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,987 x 832) x 2	(1,363 x 1,987 x 832) x 2	(1,363 x 1,987 x 832) x 2	(948 x 1,887 x 832) x 1 + (1,363 x 1,887 x 832) x 1 + (1,363 x 1,987 x 832) x 1
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
 - When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type				DVM S	DVM S	DVM S	DVM S					
Model Name				AM640MXVAJC2AZ	AM660MXVAJC2AZ	AM680MXVAJC2AZ	AM700MXVAJC2AZ					
				Outdoor unit module 1	AM120MXVAJC/AZ	AM140MXVAJC/AZ	AM180MXVAJC/AZ	AM180MXVAJC/AZ				
				Outdoor unit module 2	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ				
				Outdoor unit module 3	AM300MXVAJC/AZ	AM300MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ				
				Outdoor unit module 4	-	-	-	-				
Power Supply				Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60				
Mode				-	COOLING ONLY	COOLING ONLY	COOLING ONLY	COOLING ONLY				
Performance				HP	64	66	68	70				
				Capacity	Cooling	kW	179.2	185.6	190.6	196.0		
						Btu/h	611,500	633,300	650,400	668,800		
						US RT	50.95	52.77	54.20	55.73		
						EA	64	64	64	64		
Maximum number of connectable indoor units				EA	64	64	64	64				
Total capacity of the connected Indoor Units				Min.	kW	89.6	92.8	95.3	98.0			
				Max.	kW	233.0	241.3	247.8	254.8			
Power				Power Input	Cooling	kW	54.63	56.09	57.27	60.21		
						A	76.20	78.30	79.90	84.00		
				Current	MCA	A	-	-	-	-		
					MFA	A	-	-	-	-		
					W/W	3.28	3.31	3.33	3.26			
Efficiency				EER	Cooling	Btu/Wh	11.2	11.3	11.4	11.1		
						EA	64	64	64	64		
Casing				Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate		
				Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate			
Heat Exchanger				Type	-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube			
				Material	Fin	-	AL	AL	AL	AL		
					Tube	-	Cu	Cu	Cu	Cu		
				Fin Treatment	-	Anti-corrosion	Anti-corrosion	Anti-corrosion	Anti-corrosion			
Compressor				Type	-	Inverter Scroll x 5	Inverter Scroll x 5	Inverter Scroll x 5	Inverter Scroll x 5			
				Output	kW x n	(6.39 x 1) x 1 + (5.18 x 2) x 1 + (7.81 x 2) x 1	(6.39 x 1) x 1 + (5.18 x 2) x 1 + (7.81 x 2) x 1	(7.81 x 1) x 1 + (5.18 x 2) x 1 + (6.76 x 2) x 1	(7.81 x 1) x 1 + (5.18 x 2) x 1 + (7.81 x 2) x 1			
				Model Name	-	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1	(DS4GJ5080FV* x 1) x 1 + (DS-GB052FAV* x 2) x 1 + (DS-GB070FAV* x 2) x 1	(DS4GJ5080FV* x 1) x 1 + (DS-GB052FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1			
				Oil	Type	-	PVE	PVE	PVE	PVE		
					Initial charge	cc x n	(1,100 x 1) x 1 + (1,100 x 2) x 1 + (1,400 x 2) x 1	(1,100 x 1) x 1 + (1,100 x 2) x 1 + (1,400 x 2) x 1	(1,400 x 1) x 1 + (1,100 x 2) x 2	(1,400 x 1) x 1 + (1,100 x 2) x 1 + (1,400 x 2) x 1		
Fan				Type	-	Propeller	Propeller	Propeller	Propeller			
				Discharge direction	-	Top	Top	Top	Top			
				Quantity	EA	5	6	6	6			
				Air Flow Rate	m³/min	220 x 1 + 290 x 1 + 340 x 1	255 x 1 + 290 x 1 + 340 x 1	290 x 2 + 340 x 1	290 x 2 + 340 x 1			
					l/s	3,667 x 1 + 4,833 x 1 + 5,667 x 1	4,250 x 1 + 4,833 x 1 + 5,667 x 1	4,833 x 2 + 5,667 x 1	4,833 x 2 + 5,667 x 1			
				External Static Pressure	Max.	mmAq	8	8	8	8		
Pa	78.45	78.45	78.45			78.45						
Fan Motor				Type	-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor			
				Output	W x n	(630 x 1) x 1 + (620 x 2) x 2	(620 x 2) x 3	(620 x 2) x 3	(620 x 2) x 3			
Piping Connections				Liquid Pipe	Type	Braze connection	Braze connection	Braze connection	Braze connection			
					Φ, mm (inch)	22.22 (7/8)	22.22 (7/8)	22.22 (7/8)	22.22 (7/8)			
				Gas Pipe	Type	Braze connection	Braze connection	Braze connection	Braze connection			
					Φ, mm (inch)	53.98 (2-1/8)	53.98 (2-1/8)	53.98 (2-1/8)	53.98 (2-1/8)			
				Heat Insulation				-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
				Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	200[220]		
				Piping length (1st Branch-IDU)	Max.	m	90	90	90	90		
				Total piping length (System)	Max.	m	1,000	1,000	1,000	1,000		
				Level difference (ODU in highest position)	Max.	m	110	110	110	110		
Level difference (IDU in highest position)	Max.	m	110	110	110	110						
Level difference (IDU-IDU)	Max.	m	50	50	50	50						

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	DVM S	
Model Name			AM640MXVAJC2AZ	AM660MXVAJC2AZ	AM680MXVAJC2AZ	AM700MXVAJC2AZ	
	Outdoor unit module 1		AM120MXVAJC/AZ	AM140MXVAJC/AZ	AM180MXVAJC/AZ	AM180MXVAJC/AZ	
	Outdoor unit module 2		AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM220MXVAJC/AZ	
	Outdoor unit module 3		AM300MXVAJC/AZ	AM300MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ	
	Outdoor unit module 4		-	-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A	R410A
	Factory Charging		kg	5.5 x1 + 8.4 x1 + 12.5 x1	7.7 x1 + 8.4 x1 + 12.5 x1	8.4 x2 + 12.5 x1	8.4 x2 + 12.5 x1
Sound	Sound Pressure	Cooling	dB(A)	71	71	71	71
	Sound Power		dB(A)	93	93	93	93
External Dimension	Net Weight		kg	193.0 x1 + 288.0 x1 + 350.0 x1	233.0 x1 + 288.0 x1 + 350.0 x1	260.0 x1 + 288.0 x1 + 343.0 x1	260.0 x1 + 288.0 x1 + 350.0 x1
	Shipping Weight		kg	205.0 x1 + 307.0 x1 + 372.0 x1	252.0 x1 + 307.0 x1 + 372.0 x1	279.0 x1 + 307.0 x1 + 365.0 x1	279.0 x1 + 307.0 x1 + 372.0 x1
	Net Dimensions (WxHxD)		mm	(880 x 1,695 x 765) x1 + (1,295 x 1,695 x 765) x1 + (1,295 x 1,795 x 765) x1	(1,295 x 1,695 x 765) x 2 + (1,295 x 1,795 x 765) x1	(1,295 x 1,695 x 765) x 2 + (1,295 x 1,795 x 765) x1	(1,295 x 1,695 x 765) x 2 + (1,295 x 1,795 x 765) x1
	Shipping Dimensions (WxHxD)		mm	(948 x 1,887 x 832) x1 + (1,363 x 1,887 x 832) x1 + (1,363 x 1,987 x 832) x1	(1,363 x 1,887 x 832) x 2 + (1,363 x 1,987 x 832) x1	(1,363 x 1,887 x 832) x 2 + (1,363 x 1,987 x 832) x1	(1,363 x 1,887 x 832) x 2 + (1,363 x 1,987 x 832) x1
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
 - When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type				DVM S	DVM S	DVM S	
Model Name				AM720MXVAJC2AZ	AM740MXVAJC2AZ	AM760MXVAJC2AZ	
Outdoor unit module 1				AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM180MXVAJC/AZ	
Outdoor unit module 2				AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM280MXVAJC/AZ	
Outdoor unit module 3				AM280MXVAJC/AZ	AM300MXVAJC/AZ	AM300MXVAJC/AZ	
Outdoor unit module 4				-	-	-	
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	3, 3, 460, 60	
Mode			-	COOLING ONLY	COOLING ONLY	COOLING ONLY	
Performance	HP		HP	72	74	76	
	Capacity	Cooling	kW	201.8	207.2	213.0	
			Btu/h	688,600	707,000	726,800	
			US RT	57.38	58.92	60.57	
Maximum number of connectable indoor units			EA	64	64	64	
Total capacity of the connected Indoor Units			Min.	kW	100.9	103.6	106.5
			Max.	kW	262.3	269.4	276.9
Power	Power Input	Cooling	kW	62.75	65.69	63.92	
	Current Input	Cooling	A	87.60	91.70	89.10	
	Current	MCA	A	-	-	-	
		MFA	A	-	-	-	
Efficiency	EER	Cooling	W/W	3.22	3.15	3.33	
			Btu/Wh	11.0	10.8	11.4	
Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
		Base	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube	
	Material	Fin	-	AL	AL	AL	
		Tube	-	Cu	Cu	Cu	
	Fin Treatment		-	Anti-corrosion	Anti-corrosion	Anti-corrosion	
Compressor	Type		-	Inverter Scroll x 6	Inverter Scroll x 6	Inverter Scroll x 5	
	Output		kW x n	(5.18 x 2) x 2 + (6.76 x 2) x 1	(5.18 x 2) x 2 + (7.81 x 2) x 1	(7.81 x 1) x 1 + (6.76 x 2) x 1 + (7.81 x 2) x 1	
	Model Name		-	(DS-GB052FAV* x 2) x 2 + (DS-GB070FAV* x 2) x 1	(DS-GB052FAV* x 2) x 2 + (DS4GJ5080FV* x 2) x 1	(DS4GJ5080FV* x 1) x 1 + (DS-GB070FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1	
	Oil	Type	-	PVE	PVE	PVE	
Initial charge		cc x n	(1,100 x 2) x 3	(1,100 x 2) x 2 + (1,400 x 2) x 1	(1,400 x 1) x 1 + (1,100 x 2) x 1 + (1,400 x 2) x 1		
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction		-	Top	Top	Top	
	Quantity		EA	6	6	6	
	Air Flow Rate		m ³ /min	290 x 2 + 340 x 1	290 x 2 + 340 x 1	290 x 1 + 340 x 2	
			l/s	4,833 x 2 + 5,667 x 1	4,833 x 2 + 5,667 x 1	4,833 x 1 + 5,667 x 2	
	External Static Pressure	Max.	mmAq	8	8	8	
Pa			78.45	78.45	78.45		
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output		W x n	(620 x 2) x 3	(620 x 2) x 3	(620 x 2) x 3	
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection	
		Ø, mm (inch)		22.22 (7/8)	22.22 (7/8)	22.22 (7/8)	
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection	
		Ø, mm (inch)		53.98 (2-1/8)	53.98 (2-1/8)	53.98 (2-1/8)	
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)	Max. [Equiv.]	m	200[220]	200[220]	200[220]	
	Piping length (1st Branch-IDU)	Max.	m	90	90	90	
	Total piping length (System)	Max.	m	1,000	1,000	1,000	
	Level difference (ODU in highest position)	Max.	m	110	110	110	
Level difference (IDU in highest position)	Max.	m	110	110	110		
Level difference (IDU-IDU)	Max.	m	50	50	50		

2. Specification

Cooling Only

Type			DVM S	DVM S	DVM S	
Model Name			AM720MXVAJC2AZ	AM740MXVAJC2AZ	AM760MXVAJC2AZ	
	Outdoor unit module 1		AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM180MXVAJC/AZ	
	Outdoor unit module 2		AM220MXVAJC/AZ	AM220MXVAJC/AZ	AM280MXVAJC/AZ	
	Outdoor unit module 3		AM280MXVAJC/AZ	AM300MXVAJC/AZ	AM300MXVAJC/AZ	
	Outdoor unit module 4		-	-	-	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A	R410A
	Factory Charging		kg	8.4 x 2 + 12.5 x 1	8.4 x 2 + 12.5 x 1	8.4 x 1 + 12.5 x 2
Sound	Sound Pressure	Cooling	dB(A)	72	72	73
				Sound Power	dB(A)	94
External Dimension	Net Weight		kg	288.0 x 2 + 343.0 x 1	288.0 x 2 + 350.0 x 1	260.0 x 1 + 343.0 x 1 + 350.0 x 1
	Shipping Weight		kg	307.0 x 2 + 365.0 x 1	307.0 x 2 + 372.0 x 1	279.0 x 1 + 365.0 x 1 + 372.0 x 1
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2 + (1,295 x 1,795 x 765) x 1	(1,295 x 1,695 x 765) x 2 + (1,295 x 1,795 x 765) x 1	(1,295 x 1,695 x 765) x 1 + (1,295 x 1,795 x 765) x 2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2 + (1,363 x 1,987 x 832) x 1	(1,363 x 1,887 x 832) x 2 + (1,363 x 1,987 x 832) x 1	(1,363 x 1,887 x 832) x 1 + (1,363 x 1,987 x 832) x 2
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 4) 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 = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
 - When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

2. Specification

Cooling Only

Type				DVM S	DVM S	
Model Name				AM780MXVAJC2AZ	AM800MXVAJC2AZ	
		Outdoor unit module 1		AM180MXVAJC/AZ	AM220MXVAJC/AZ	
		Outdoor unit module 2		AM300MXVAJC/AZ	AM280MXVAJC/AZ	
		Outdoor unit module 3		AM300MXVAJC/AZ	AM300MXVAJC/AZ	
		Outdoor unit module 4		-	-	
Power Supply			Ø, #, V, Hz	3, 3, 460, 60	3, 3, 460, 60	
Mode			-	COOLING ONLY	COOLING ONLY	
Performance	HP	HP		78	80	
		kW		218.4	224.2	
	Capacity	Cooling		Btu/h	745,200	765,000
				US RT	62.10	63.75
				EA	64	64
Maximum number of connectable indoor units			EA	64	64	
Total capacity of the connected Indoor Units			Min.	kW	109.2	112.1
			Max.	kW	283.9	291.5
Power	Power Input		Cooling	kW	66.86	69.40
	Current Input		Cooling	A	93.20	96.80
	Current		MCA	A	-	-
			MFA	A	-	-
Efficiency	EER		Cooling	W/W	3.27	3.23
				Btu/Wh	11.1	11.0
Casing	Material		Body	-	EGI Steel Plate	EGI Steel Plate
			Base	-	EGI Steel Plate	EGI Steel Plate
Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	
	Material		Fin	-	AL	AL
			Tube	-	Cu	Cu
	Fin Treatment		-	Anti-corrosion	Anti-corrosion	
Compressor	Type		-	Inverter Scroll x 5	Inverter Scroll x 6	
	Output		kW x n	(781 x 1) x 1 + (781 x 2) x 2	(518 x 2) x 1 + (676 x 2) x 1 + (781 x 2) x 1	
	Model Name		-	(DS4GJ5080FV* x 1) x 1 + (DS4GJ5080FV* x 2) x 2	(DS-GB052FAV* x 2) x 1 + (DS-GB070FAV* x 2) x 1 + (DS4GJ5080FV* x 2) x 1	
	Oil		Type	-	PVE	PVE
			Initial charge	cc x n	(1,400 x 1) x 1 + (1,400 x 2) x 2	(1,100 x 2) x 2 + (1,400 x 2) x 1
Fan	Type		-	Propeller	Propeller	
	Discharge direction		-	Top	Top	
	Quantity		EA	6	6	
	Air Flow Rate		m³/min	290 x 1 + 340 x 2	290 x 1 + 340 x 2	
			l/s	4,833 x 1 + 5,667 x 2	4,833 x 1 + 5,667 x 2	
	External Static Pressure		Max.	mmAq	8	8
Pa				78.45	78.45	
Fan Motor	Type		-	BLDC Motor	BLDC Motor	
	Output		W x n	(620 x 2) x 3	(620 x 2) x 3	
Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	
			Ø, mm (inch)	22.22 (7/8)	22.22 (7/8)	
	Gas Pipe		Type	Braze connection	Braze connection	
			Ø, mm (inch)	53.98 (2-1/8)	53.98 (2-1/8)	
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)		Max. [Equiv.]	m	200[220]	200[220]
	Piping length (1st Branch-IDU)		Max.	m	90	90
	Total piping length (System)		Max.	m	1,000	1,000
	Level difference (ODU in highest position)		Max.	m	110	110
Level difference (IDU in highest position)		Max.	m	110	110	
Level difference (IDU-IDU)		Max.	m	50	50	

2. Specification

Cooling Only

Type				DVM S	DVM S
Model Name				AM780MXVAJC2AZ	AM800MXVAJC2AZ
	Outdoor unit module 1			AM180MXVAJC/AZ	AM220MXVAJC/AZ
	Outdoor unit module 2			AM300MXVAJC/AZ	AM280MXVAJC/AZ
	Outdoor unit module 3			AM300MXVAJC/AZ	AM300MXVAJC/AZ
	Outdoor unit module 4			-	-
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75
		Remark	-	F1, F2	F1, F2
	Power supply intake		-	Both indoor and outdoor unit	Both indoor and outdoor unit
Refrigerant	Type		-	R410A	R410A
	Factory Charging		kg	8.4 x1 +12.5 x2	8.4 x1 +12.5 x2
Sound	Sound Pressure	Cooling	dB(A)	73	73
	Sound Power		dB(A)	94	94
External Dimension	Net Weight		kg	260.0 x1 +350.0 x2	288.0 x1 +343.0 x1 +350.0 x1
	Shipping Weight		kg	279.0 x1 +372.0 x2	307.0 x1 +365.0 x1 +372.0 x1
	Net Dimensions (WxHxD)		mm	(1,295 x1,695 x 765) x1 + (1,295 x1,795 x 765) x2	(1,295 x1,695 x 765) x1 + (1,295 x1,795 x 765) x2
	Shipping Dimensions (WxHxD)		mm	(1,363 x1,887 x 832) x1 + (1,363 x1,987 x 832) x2	(1,363 x1,887 x 832) x1 + (1,363 x1,987 x 832) x2
Operating Temp. Range	Cooling		°C	-5 ~ 48	-5 ~ 48
	Heating		°C	-	-

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature 27°CDB, 19°CWB, Outdoor temperature 35°CDB, 24°CWB
 - 2) Performance of Multiple Module Outdoor unit is weighted average of Single Module outdoor units.
 - 3) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
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 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20uPa
 - 5) 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 values of multi combination are theoretical values based on sound results of individual installed units.
 - 7) These products contain R410A which is fluorinated greenhouse gas.
 - 8) If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under.
(If the level difference is higher than 50m, make a decision by PDM kit installation Guide software whether the PDM kit should be installed or not.)
 - PDM kit: Pressure Drop Modulation kit
When the outdoor unit is below the indoor unit & the level differences are 40m or more, contact your local dealer for more information.
- In case you want to know more information regarding capacity and correction, please refer to capacity table TDB on pvi.samsung.com site.

3. Electrical Characteristics

Cooling Only

Capacity		Model	Power Supply		Voltage Range		Running Current [A]	Current [A]		ODU Fan Motor	
HP	kW		Hz	Voltage	Min. (-10%)	Max. (+10%)	Cooling	MCA	MFA	kW	FLA [A]
8	22.4	AM080MXVAJC/AZ	60	460	414	506	6.9	15.8	25	0.63	2
10	28.0	AM100MXVAJC/AZ	60	460	414	506	8.9	19.8	25	0.63	2
12	33.6	AM120MXVAJC/AZ	60	460	414	506	12.0	21.8	32	0.63	2
14	40.0	AM140MXVAJC/AZ	60	460	414	506	14.1	24.0	32	1.24	3
16	45.0	AM160MXVAJC/AZ	60	460	414	506	16.9	27.8	40	1.24	3
18	50.4	AM180MXVAJC/AZ	60	460	414	506	19.8	34.0	50	1.24	3
20	56.0	AM200MXVAJC/AZ	60	460	414	506	23.2	36.6	50	1.24	3
22	61.6	AM220MXVAJC/AZ	60	460	414	506	27.5	38.8	50	1.24	3
24	67.2	AM240MXVAJC/AZ	60	460	414	506	24.9	44.6	50	1.24	3
26	72.8	AM260MXVAJC/AZ	60	460	414	506	29.9	52.2	63	1.24	3
28	78.6	AM280MXVAJC/AZ	60	460	414	506	32.6	56.6	63	1.24	3
30	84.0	AM300MXVAJC/AZ	60	460	414	506	36.7	56.6	63	1.24	3
32	89.6	AM320MXVAJC2AZ	60	460	414	506	36.4	-	-	-	-
34	95.2	AM340MXVAJC2AZ	60	460	414	506	39.5	-	-	-	-
36	101.6	AM360MXVAJC2AZ	60	460	414	506	41.6	-	-	-	-
38	106.6	AM380MXVAJC2AZ	60	460	414	506	44.4	-	-	-	-
40	112.0	AM400MXVAJC2AZ	60	460	414	506	47.3	-	-	-	-
42	117.6	AM420MXVAJC2AZ	60	460	414	506	50.7	-	-	-	-
44	123.2	AM440MXVAJC2AZ	60	460	414	506	55.0	-	-	-	-
46	129.0	AM460MXVAJC2AZ	60	460	414	506	52.4	-	-	-	-
48	134.6	AM480MXVAJC2AZ	60	460	414	506	55.8	-	-	-	-
50	140.2	AM500MXVAJC2AZ	60	460	414	506	60.1	-	-	-	-
52	145.6	AM520MXVAJC2AZ	60	460	414	506	64.2	-	-	-	-
54	151.2	AM540MXVAJC2AZ	60	460	414	506	61.6	-	-	-	-
56	156.8	AM560MXVAJC2AZ	60	460	414	506	66.6	-	-	-	-
58	162.6	AM580MXVAJC2AZ	60	460	414	506	69.3	-	-	-	-
60	168.0	AM600MXVAJC2AZ	60	460	414	506	73.4	-	-	-	-
62	173.8	AM620MXVAJC2AZ	60	460	414	506	72.1	-	-	-	-
64	179.2	AM640MXVAJC2AZ	60	460	414	506	76.2	-	-	-	-
66	185.6	AM660MXVAJC2AZ	60	460	414	506	78.3	-	-	-	-
68	190.6	AM680MXVAJC2AZ	60	460	414	506	79.9	-	-	-	-
70	196.0	AM700MXVAJC2AZ	60	460	414	506	84.0	-	-	-	-
72	201.8	AM720MXVAJC2AZ	60	460	414	506	87.6	-	-	-	-
74	207.2	AM740MXVAJC2AZ	60	460	414	506	91.7	-	-	-	-
76	213.0	AM760MXVAJC2AZ	60	460	414	506	89.1	-	-	-	-
78	218.4	AM780MXVAJC2AZ	60	460	414	506	93.2	-	-	-	-
80	224.2	AM800MXVAJC2AZ	60	460	414	506	96.8	-	-	-	-

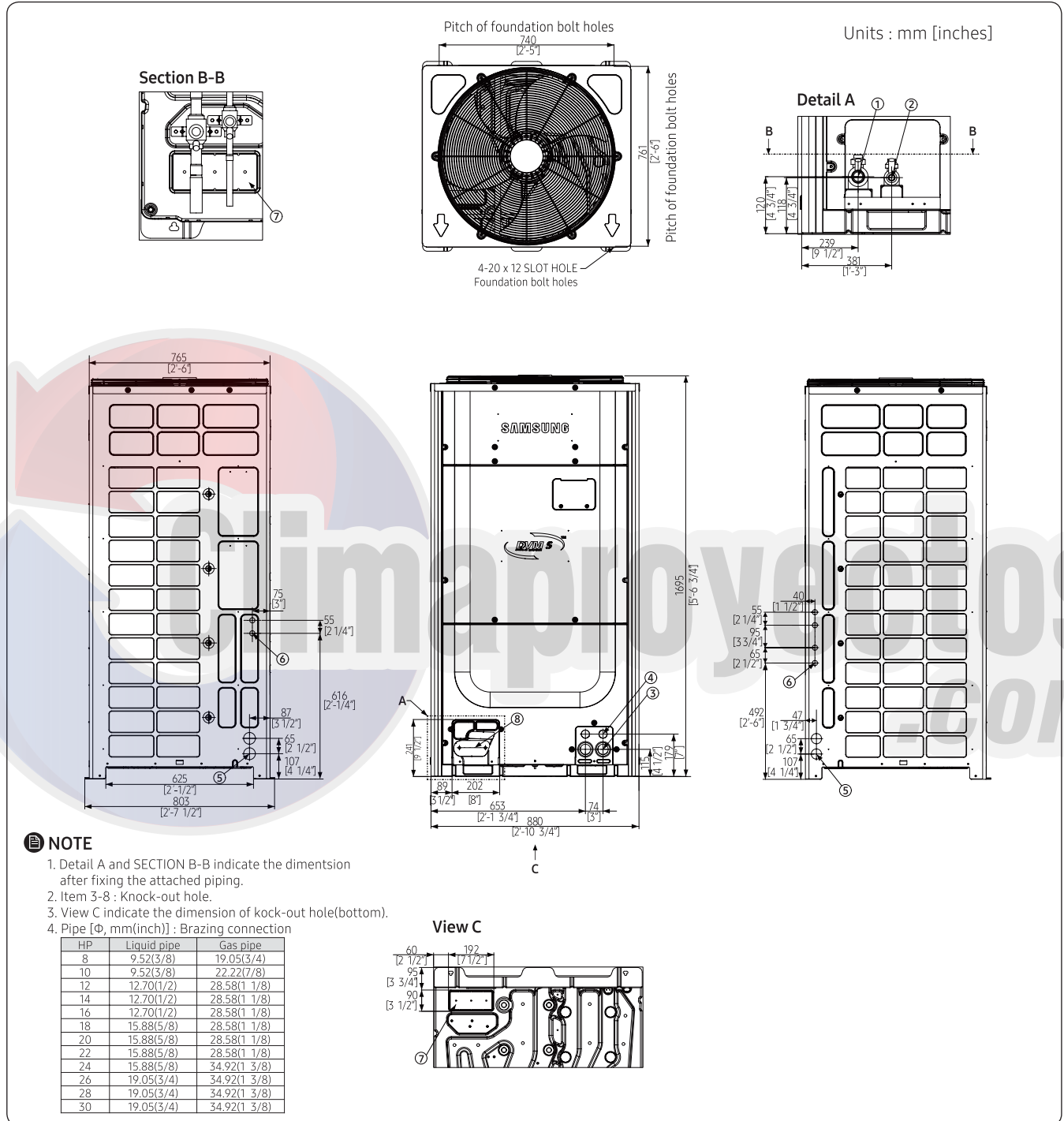
NOTE

- MCA : Minimum circuit amperes
- MFA : Maximum fuse amperes
- FLA : Full load amperes

4. Dimensional Drawing

Outdoor unit

- AM080~120MXVAJC/AZ

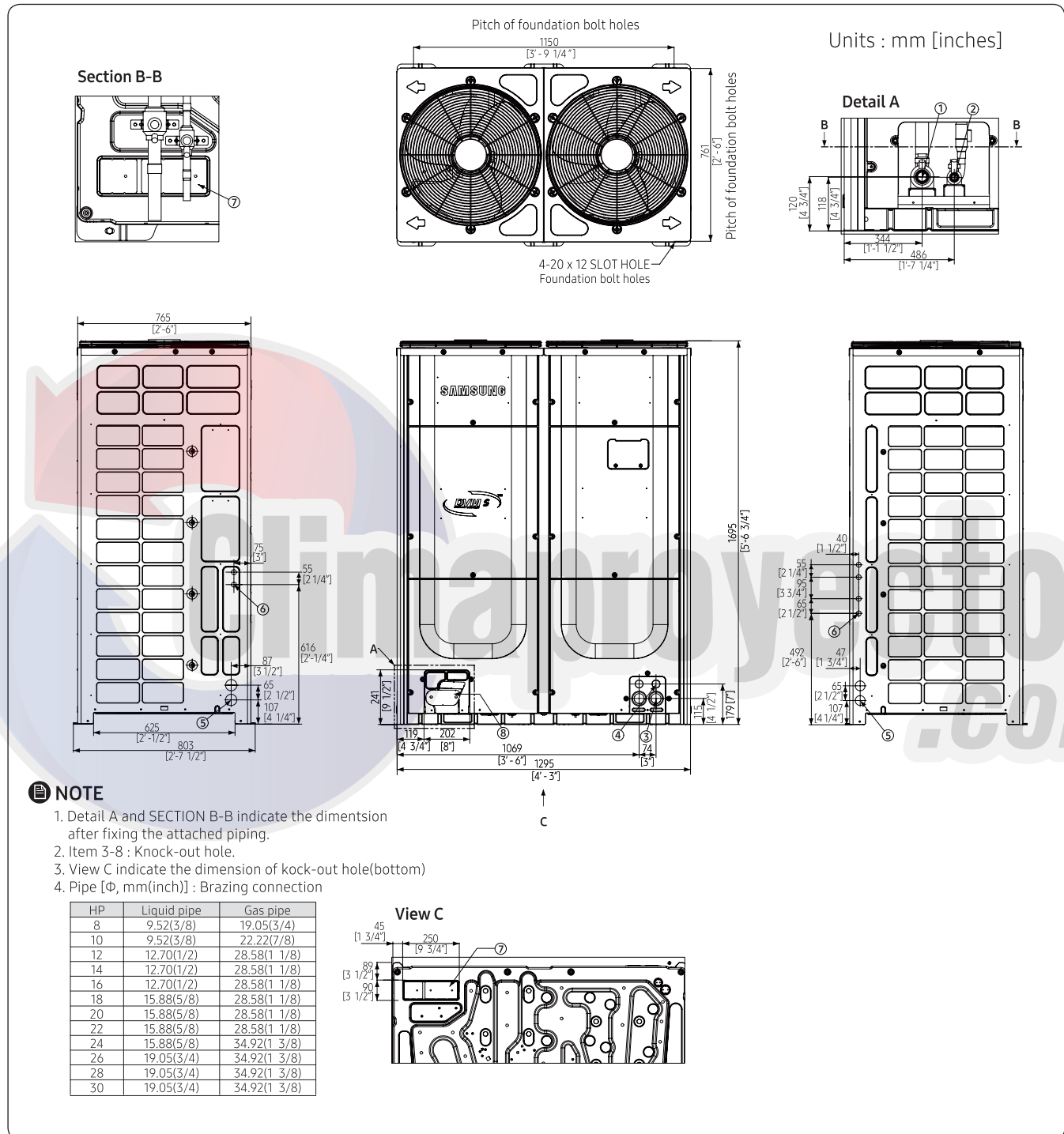


NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Gas Ref. pipe	See note 4.	5	Power wiring conduit	Φ44
2	Liquid Ref. pipe	See note 4.	6	Communication wiring conduit	Φ22
3	Power wiring conduit	Φ44	7	Knock-out Hole for Ref. Piping (bottom)	
4	Communication wiring conduit	Φ34	8	Knock-out Hole for Ref. Piping (front)	

4. Dimensional Drawing

Outdoor unit

- AM140~220MXVAJC/AZ

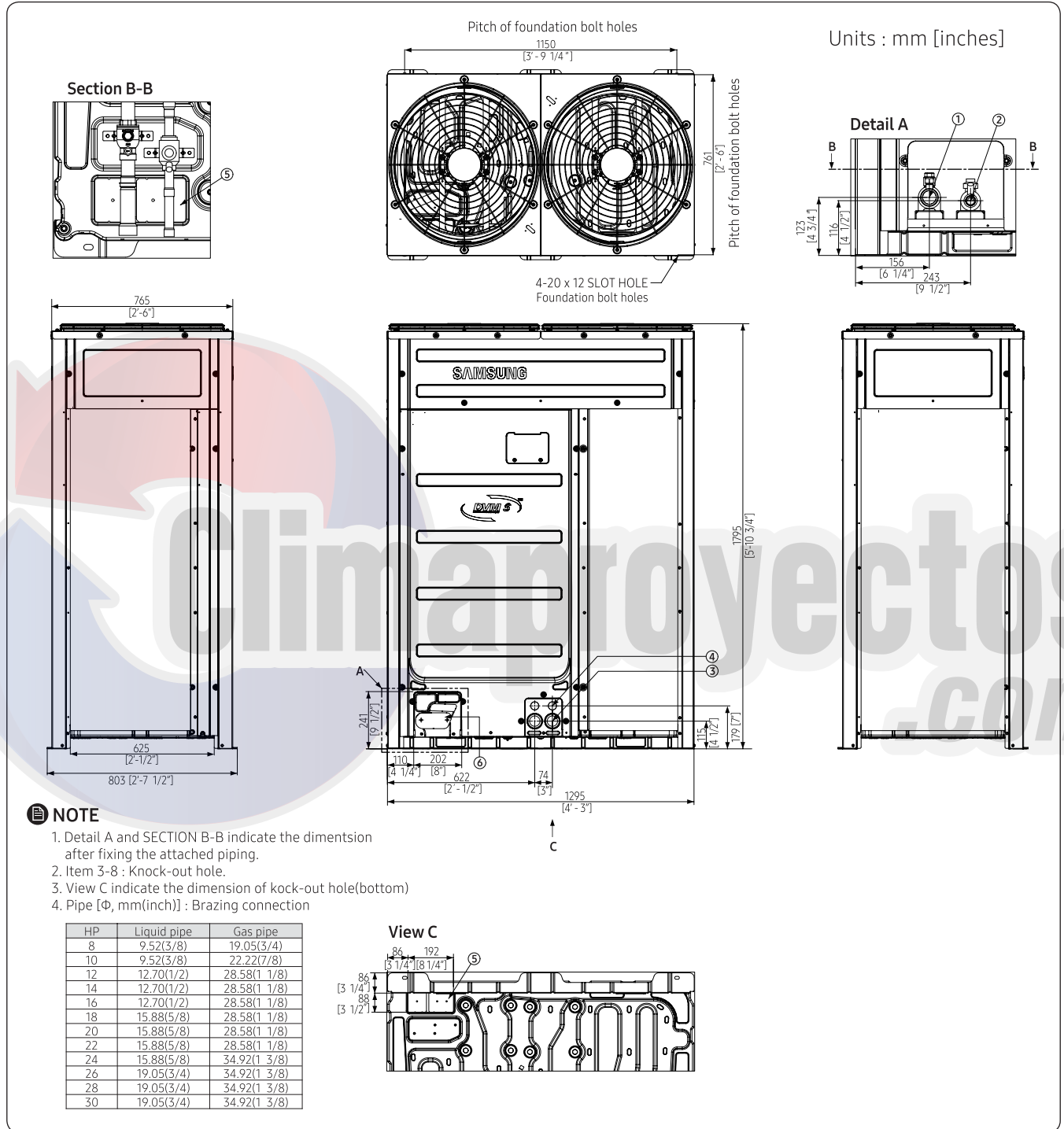


NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Gas Ref. pipe	See note 4.	5	Power wiring conduit	Φ44
2	Liquid Ref. pipe	See note 4.	6	Communication wiring conduit	Φ22
3	Power wiring conduit	Φ44	7	Knock-out Hole for Ref. Piping (bottom)	
4	Communication wiring conduit	Φ34	8	Knock-out Hole for Ref. Piping (front)	

4. Dimensional Drawing

Outdoor unit

- AM240~300MXVAJC/AZ

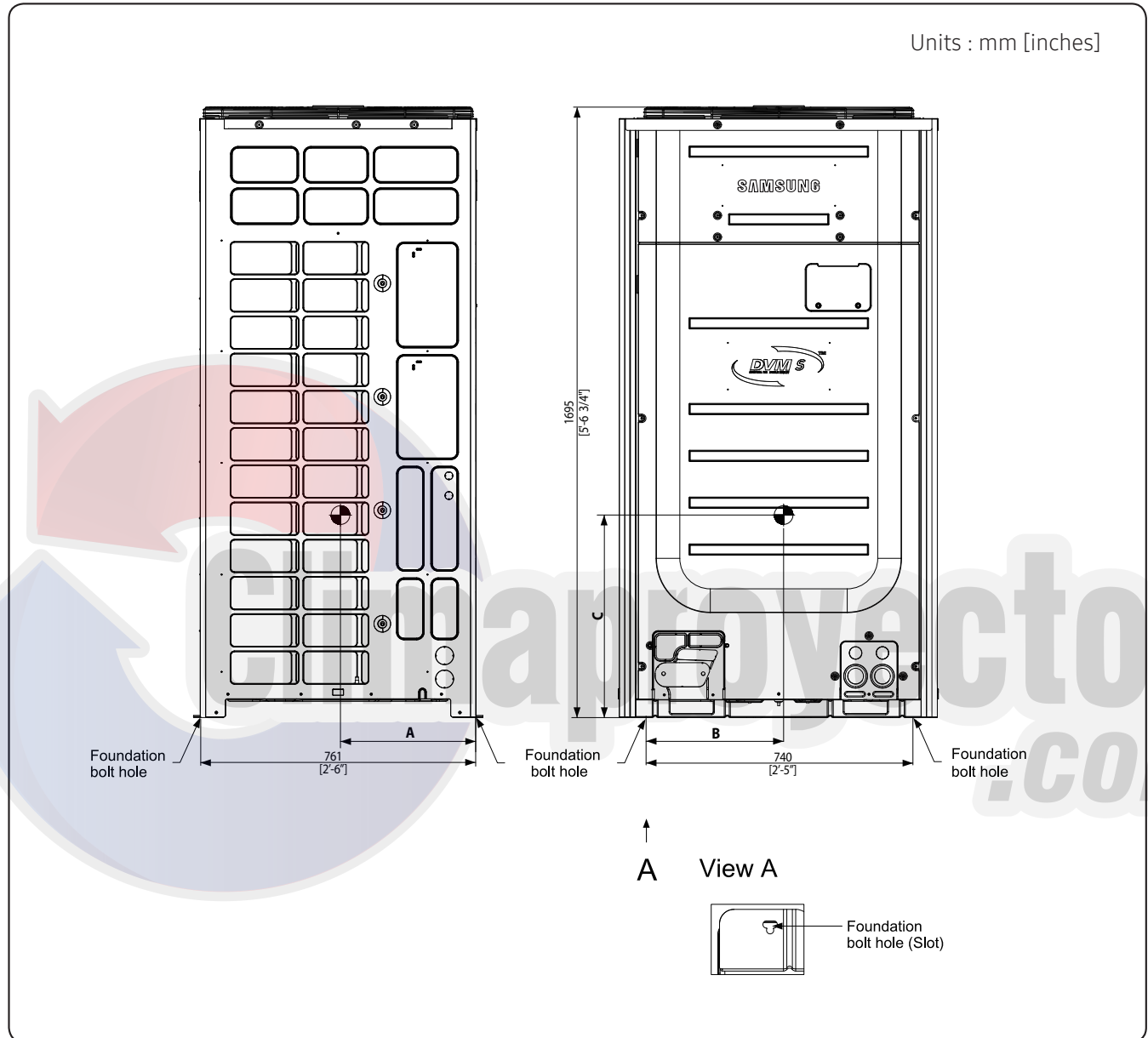


NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Gas Ref. pipe	See note 4.	5	Power wiring conduit	
2	Liquid Ref. pipe	See note 4.	6	Communication wiring conduit	
3	Power wiring conduit	Φ44			
4	Communication wiring conduit	Φ34			

5. Center of Gravity

Outdoor unit

- AM080~120MXVAJC/AZ

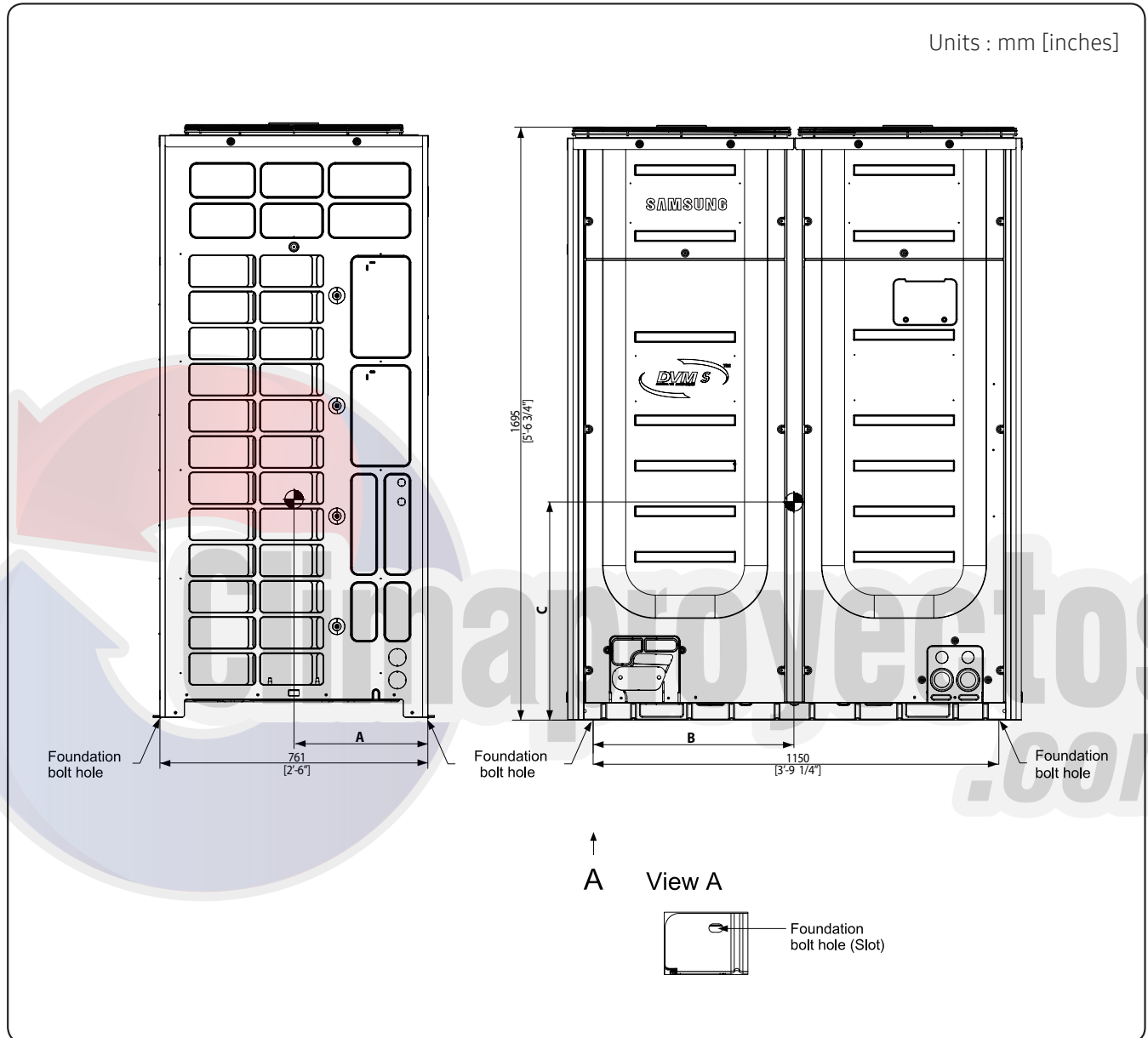


Model	A	B	C
AM080*****	360 [1'-2 1/4"]	455 [1'-6"]	560 [1'-10"]
AM100*****	360 [1'-2 1/4"]	455 [1'-6"]	560 [1'-10"]
AM120*****	360 [1'-2 1/4"]	455 [1'-6"]	560 [1'-10"]

5. Center of Gravity

Outdoor unit

- AM140~220MXVAJC/AZ

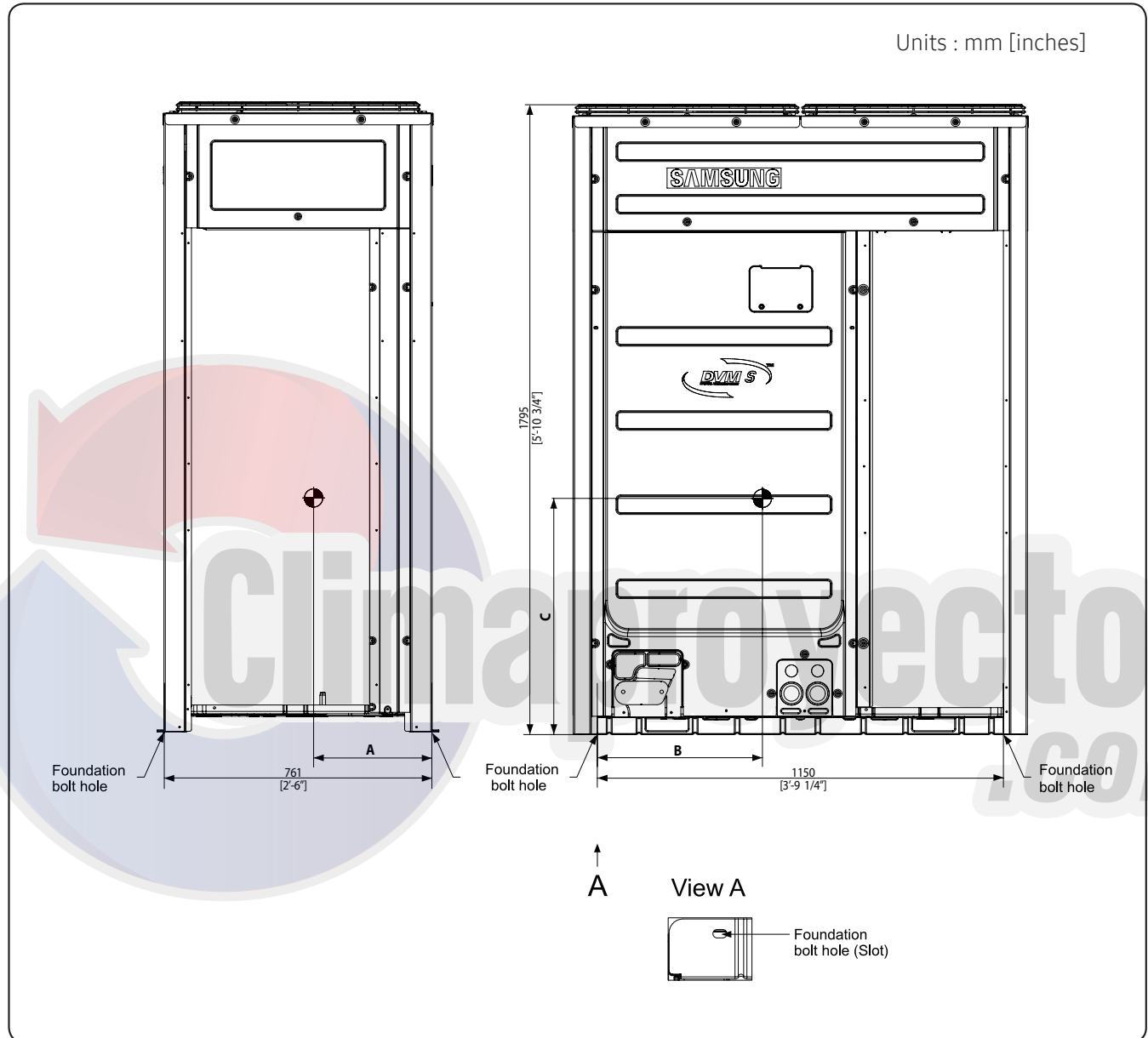


Model	A	B	C
AM140*****	370 [1'-2 1/2"]	595 [1'-11"]	620 [2'-4"]
AM160*****	365 [1'-2 3/8"]	655 [2'-1 3/4"]	620 [2'-4"]
AM180*****	365 [1'-2 3/8"]	655 [2'-1 3/4"]	620 [2'-4"]
AM200*****	365 [1'-2 3/8"]	655 [2'-1 3/4"]	620 [2'-4"]
AM220*****	365 [1'-2 3/8"]	655 [2'-1 3/4"]	620 [2'-4"]

5. Center of Gravity

Outdoor unit

- AM240~300MXVAJC/AZ

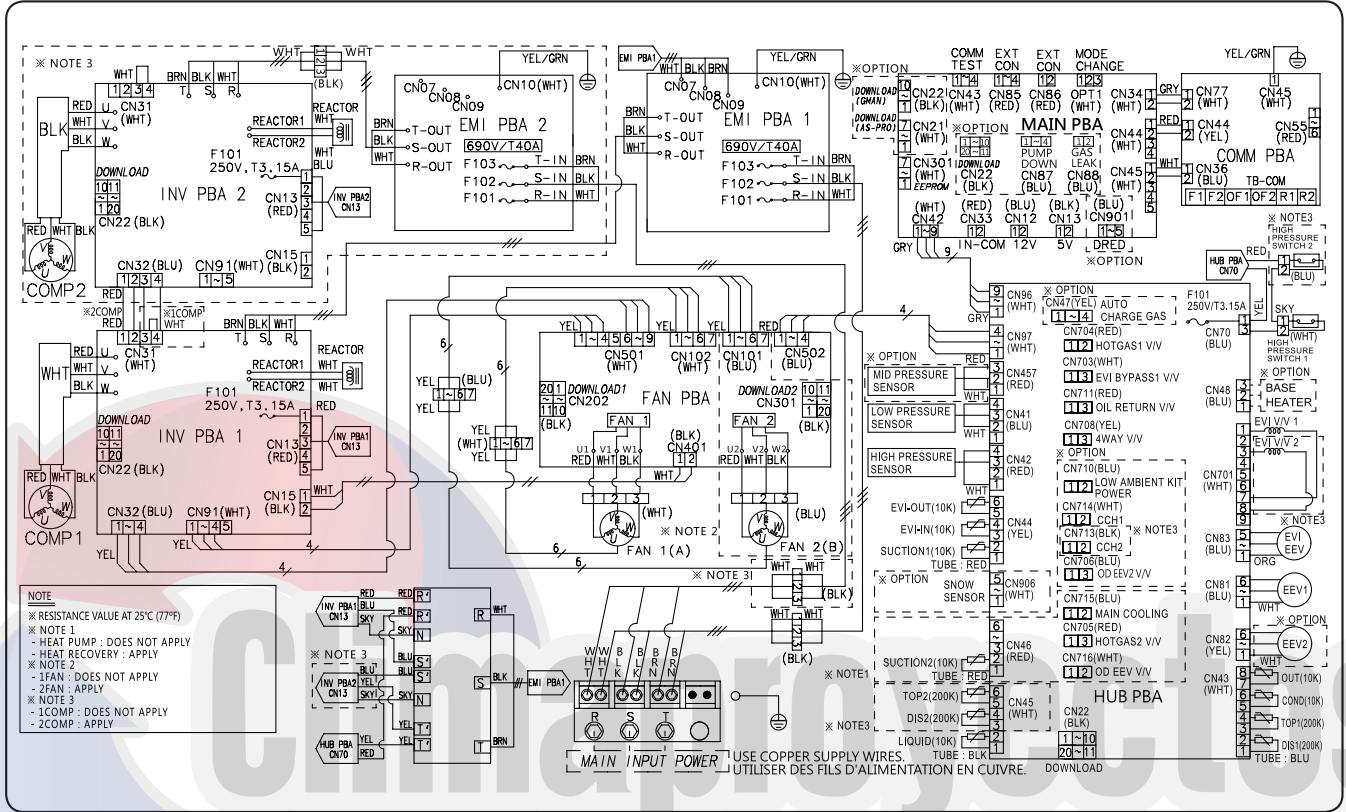


Model	A	B	C
AM240*****	335 [1'-12"]	565 [1'-10 1/4"]	675 [2'-2 1/2"]
AM260*****	335 [1'-12"]	565 [1'-10 1/4"]	675 [2'-2 1/2"]
AM280*****	335 [1'-12"]	565 [1'-10 1/4"]	675 [2'-2 1/2"]
AM300*****	335 [1'-12"]	565 [1'-10 1/4"]	675 [2'-2 1/2"]

6. Electrical Wiring Diagrams

Outdoor unit

- AM080MXVAJC/AZ, AM100MXVAJC/AZ, AM120MXVAJC/AZ, AM140MXVAJC/AZ, AM200MXVAJC/AZ, AM220MXVAJC/AZ, AM240MXVAJC/AZ



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 (emi2)	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 (Compressor2)
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(inverterPBA)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Copressor2 TOP)	690V/T40A	FUSE(EMI PBA)
EVI V/V1	Solenoid valve (Enhanced Vapor Injection_1)	DIS1(200K)	Thermistor DIS1(200K)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V2	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)

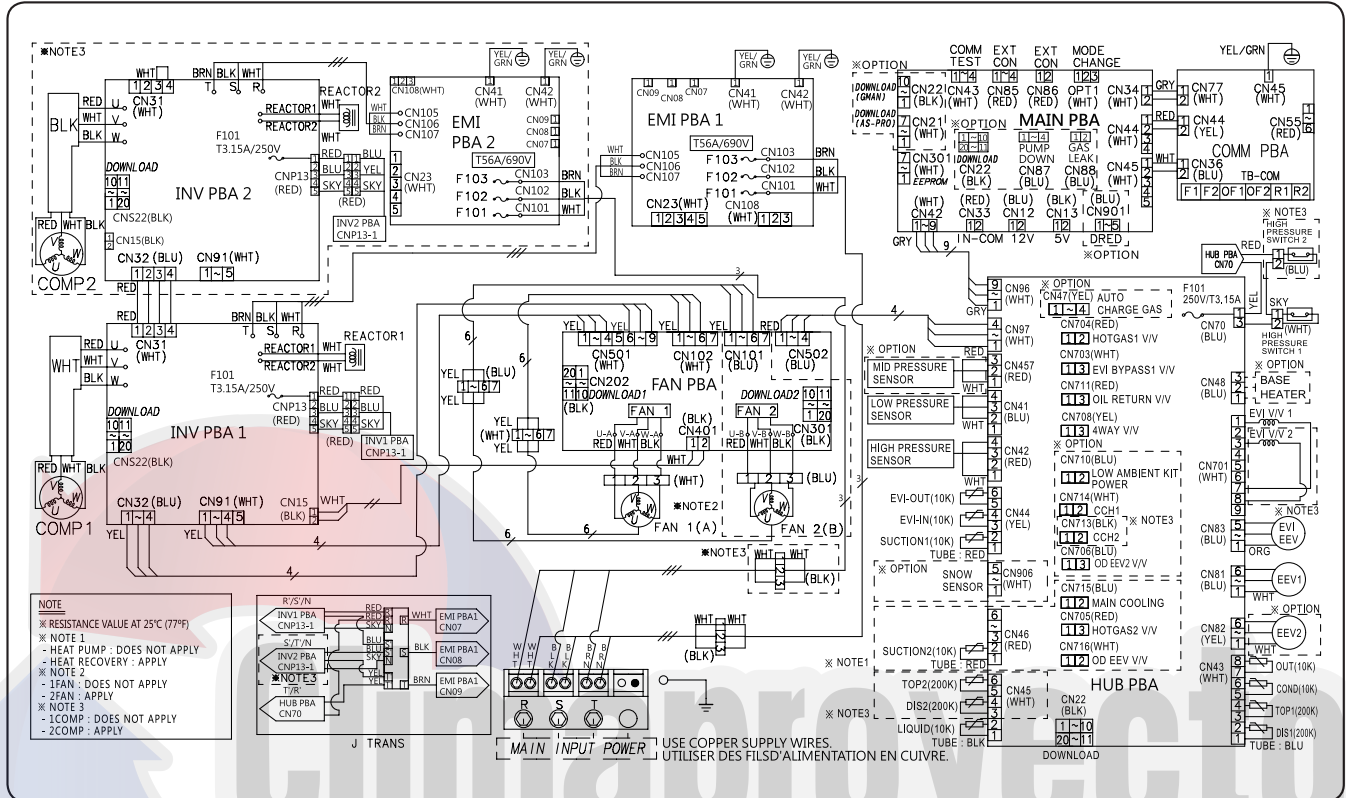
NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue
- When operating, don't shortcircuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor_outdoor transmission OF1-OF2, refer to the installation manual.
- Protective earth(screw), : connector, : The wire quantity

6. Electrical Wiring Diagrams

Outdoor unit

- AM160MXVAJC/AZ, AM180MXVAJC/AZ, AM260MXVAJC/AZ, AM280MXVAJC/AZ, AM300MXVAJC/AZ



INV PBA1	Printed circuit board (inverter1)	EEV1	Electronic expansion valve1	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 (emi2)	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 (Compressor2)
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(inverterPBA)
FAN2	Motor (fan2)	TOP2(200K)	Thermistor (Cpressor2 TOP)	690V/T56A	FUSE(EMI PBA)
EVI V/V1	Solenoid valve (Enhanced Vapor Injection_1)	DIS1(200K)	Thermistor DIS1(200K)	MODE CHANGE	Connector (remote switching cool/heat selector)
EVI V/V2	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)

NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue
- When operating, don't shortcircuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor_outdoor transmission OF1-OF2, refer to the installation manual.
- Protective earth(screw), : connector, : The wire quantity

7. Sound Data

Summary

Cooling Only

Capacity		Model	Sound Pressure dB(A)	Sound Power dB(A)
HP	kW		Cooling	
8	22.4	AM080MXVAJC/AZ	57	77
10	28.0	AM100MXVAJC/AZ	61	80
12	33.6	AM120MXVAJC/AZ	62	81
14	40.0	AM140MXVAJC/AZ	61	81
16	45.0	AM160MXVAJC/AZ	63	83
18	50.4	AM180MXVAJC/AZ	64	84
20	56.0	AM200MXVAJC/AZ	65	87
22	61.6	AM220MXVAJC/AZ	65	89
24	67.2	AM240MXVAJC/AZ	67	89
26	72.8	AM260MXVAJC/AZ	67	89
28	78.6	AM280MXVAJC/AZ	69	90
30	84.0	AM300MXVAJC/AZ	69	90
32	89.6	AM320MXVAJC2AZ	66	90
34	95.2	AM340MXVAJC2AZ	67	90
36	101.6	AM360MXVAJC2AZ	66	90
38	106.6	AM380MXVAJC2AZ	67	90
40	112.0	AM400MXVAJC2AZ	68	90
42	117.6	AM420MXVAJC2AZ	68	91
44	123.2	AM440MXVAJC2AZ	68	92
46	129.0	AM460MXVAJC2AZ	70	91
48	134.6	AM480MXVAJC2AZ	70	92
50	140.2	AM500MXVAJC2AZ	70	93
52	145.6	AM520MXVAJC2AZ	70	93
54	151.2	AM540MXVAJC2AZ	71	93
56	156.8	AM560MXVAJC2AZ	71	93
58	162.6	AM580MXVAJC2AZ	72	93
60	168.0	AM600MXVAJC2AZ	72	93
62	173.8	AM620MXVAJC2AZ	71	93
64	179.2	AM640MXVAJC2AZ	71	93
66	185.6	AM660MXVAJC2AZ	71	93
68	190.6	AM680MXVAJC2AZ	71	93
70	196.0	AM700MXVAJC2AZ	71	93
72	201.8	AM720MXVAJC2AZ	72	94
74	207.2	AM740MXVAJC2AZ	72	94
76	213.0	AM760MXVAJC2AZ	73	94
78	218.4	AM780MXVAJC2AZ	73	94
80	224.2	AM800MXVAJC2AZ	73	94

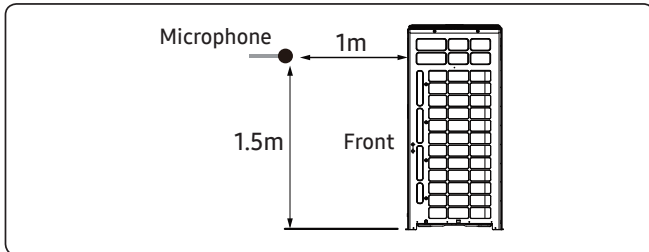
NOTE

- Sound Pressure Level
 - 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
- Sound Power Level
 - 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. Sound Data

Sound Pressure level

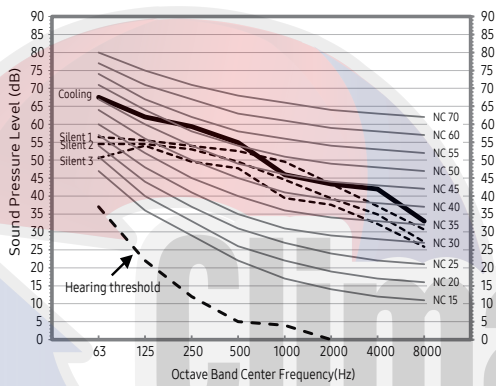
Unit: dB(A)



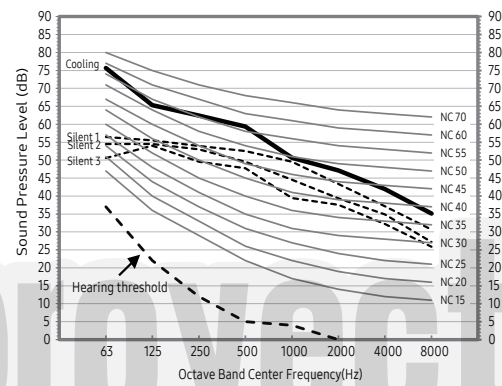
Model	Cooling	Silent 1	Silent 2	Silent 3
AM080MXVAJC/AZ	57	55	52	49
AM100MXVAJC/AZ	61	55	52	49
AM120MXVAJC/AZ	62	55	52	49
AM140MXVAJC/AZ	61	57	55	49

• NC Curve

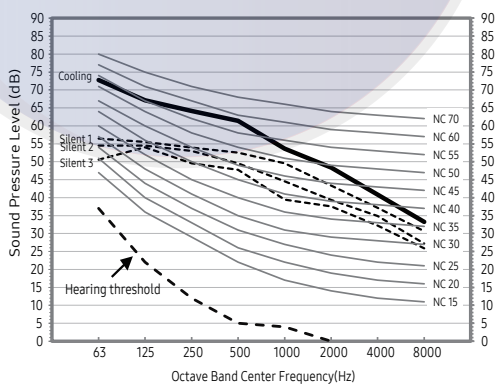
1) AM080MXVAJC/AZ



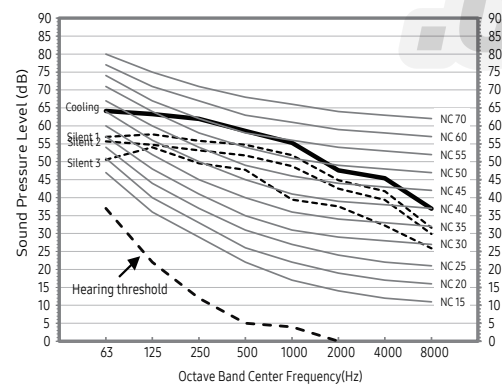
2) AM100MXVAJC/AZ



3) AM120MXVAJC/AZ



4) AM140MXVAJC/AZ



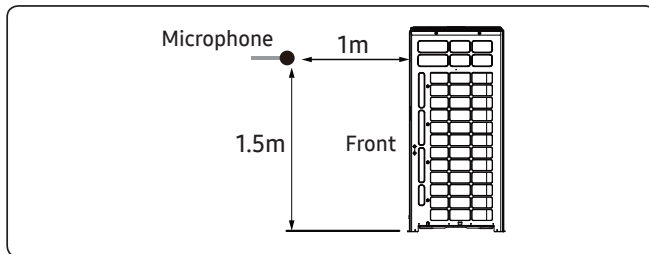
NOTE

- 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

7. Sound Data

Sound Pressure level

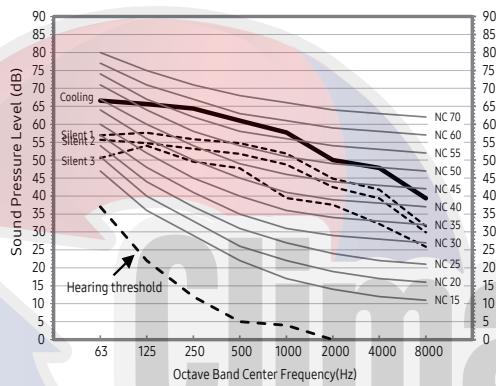
Unit: dB(A)



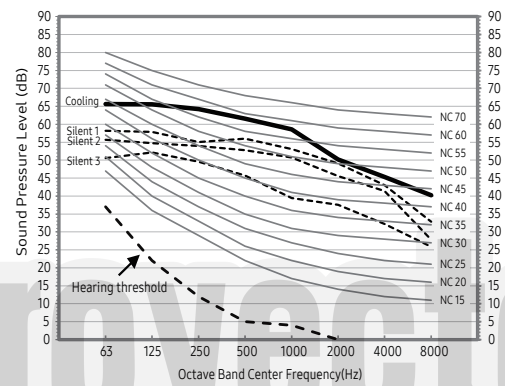
Model	Cooling	Silent 1	Silent 2	Silent 3
AM160MXVAJC/AZ	63	57	55	49
AM180MXVAJC/AZ	64	59	56	49
AM200MXVAJC/AZ	65	59	56	49
AM220MXVAJC/AZ	65	59	56	49

• NC Curve

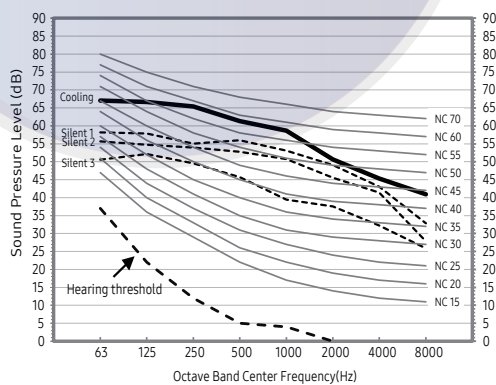
1) AM160MXVAJC/AZ



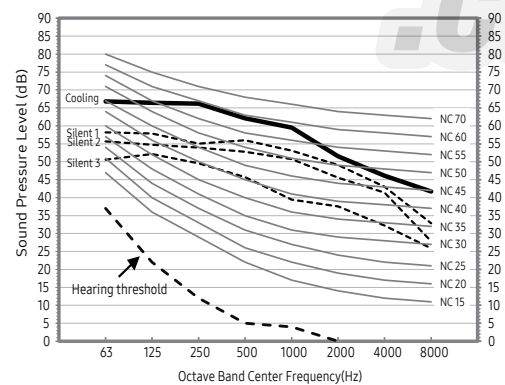
2) AM180MXVAJC/AZ



3) AM200MXVAJC/AZ



4) AM220MXVAJC/AZ



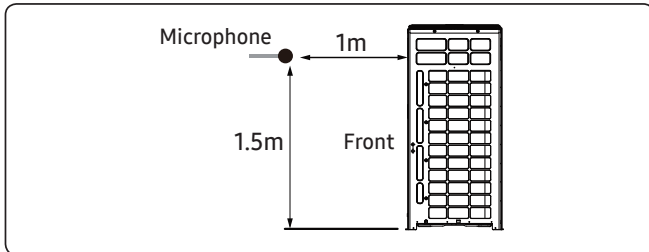
NOTE

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 - 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

7. Sound Data

Sound Pressure level

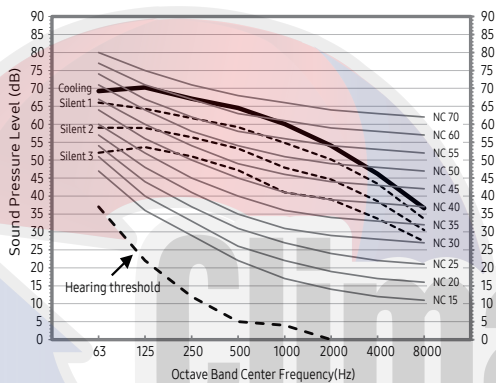
Unit: dB(A)



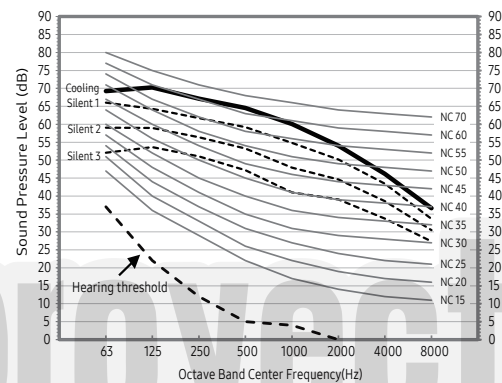
Model	Cooling	Silent 1	Silent 2	Silent 3
AM240MXVAJC/AZ	67	64	56	49
AM260MXVAJC/AZ	67	64	56	49
AM280MXVAJC/AZ	69	64	56	49
AM300MXVAJC/AZ	69	64	56	49

• NC Curve

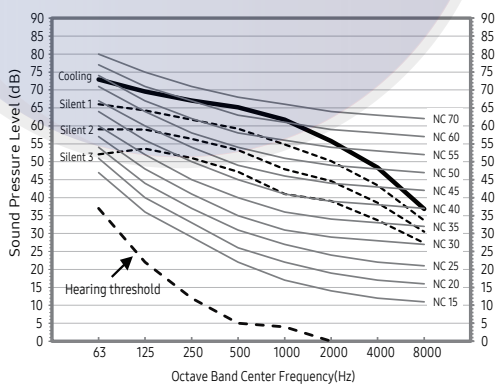
1) AM240MXVAJC/AZ



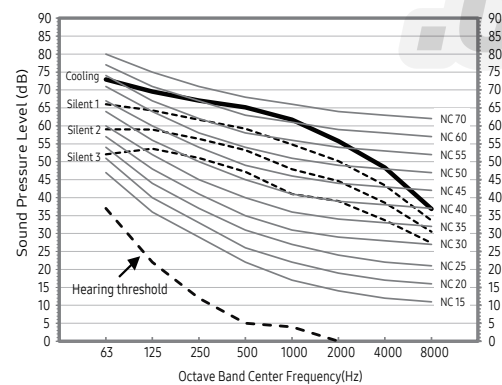
2) AM260MXVAJC/AZ



3) AM280MXVAJC/AZ



4) AM300MXVAJC/AZ



NOTE

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 - 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

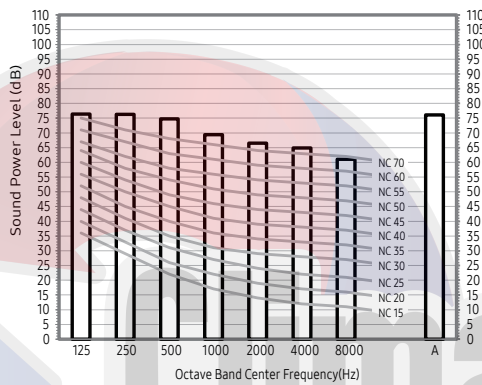
7. Sound Data

Sound Power level

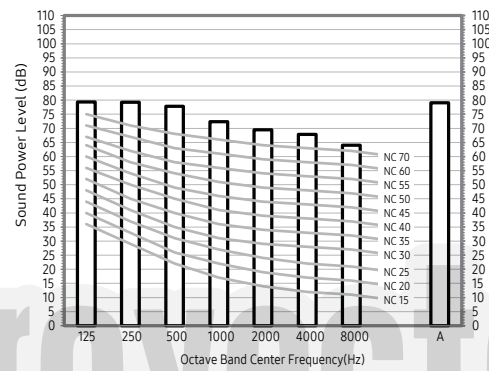
Unit: dB(A)

Model	Power
AM080MXVAJC/AZ	77
AM100MXVAJC/AZ	80
AM120MXVAJC/AZ	81
AM140MXVAJC/AZ	81

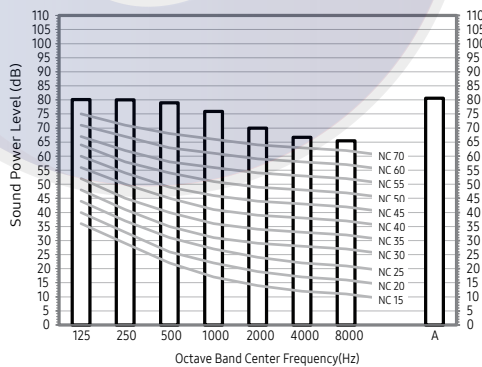
1) AM080MXVAJC/AZ



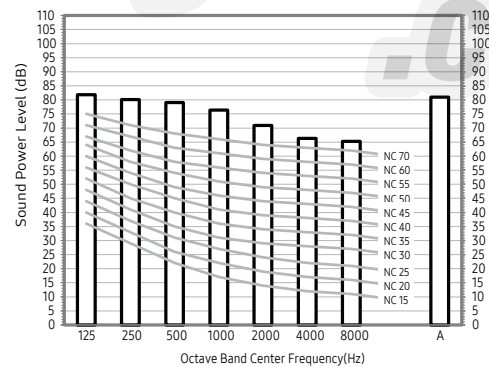
2) AM100MXVAJC/AZ



3) AM120MXVAJC/AZ



4) AM140MXVAJC/AZ



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.

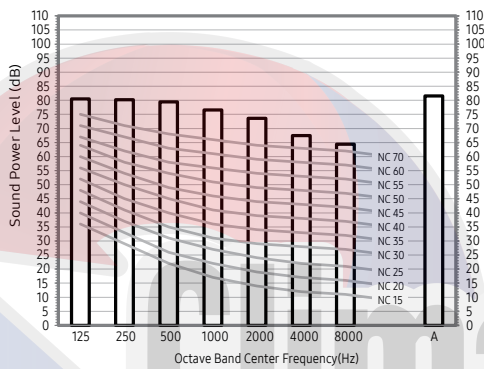
7. Sound Data

Sound Power level

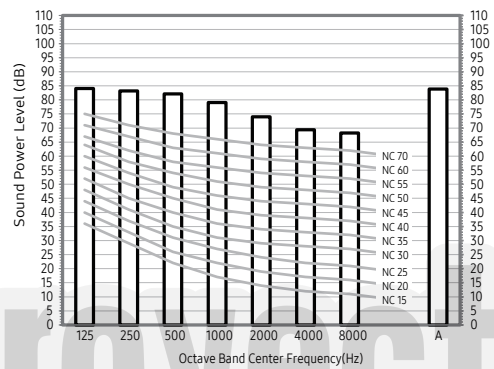
Unit: dB(A)

Model	Power
AM160MXVAJC/AZ	83
AM180MXVAJC/AZ	84
AM200MXVAJC/AZ	87
AM220MXVAJC/AZ	89

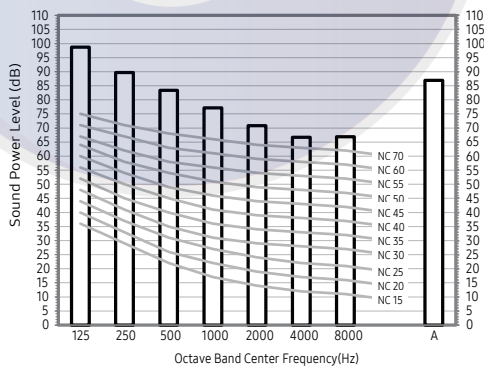
1) AM160MXVAJC/AZ



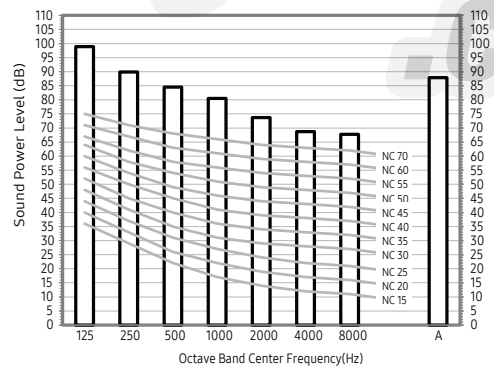
2) AM180MXVAJC/AZ



3) AM200MXVAJC/AZ



4) AM220MXVAJC/AZ



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.

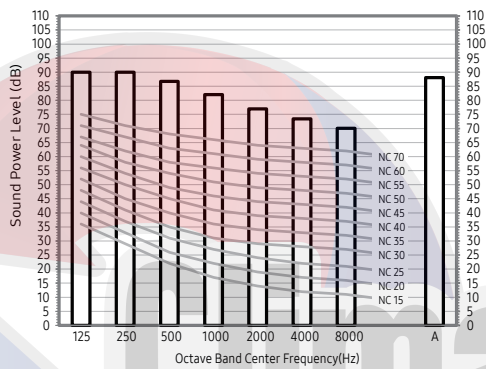
7. Sound Data

Sound Power level

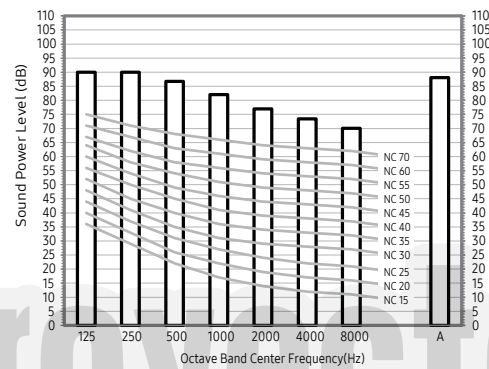
Unit: dB(A)

Model	Power
AM240MXVAJC/AZ	89
AM260MXVAJC/AZ	89
AM280MXVAJC/AZ	90
AM300MXVAJC/AZ	90

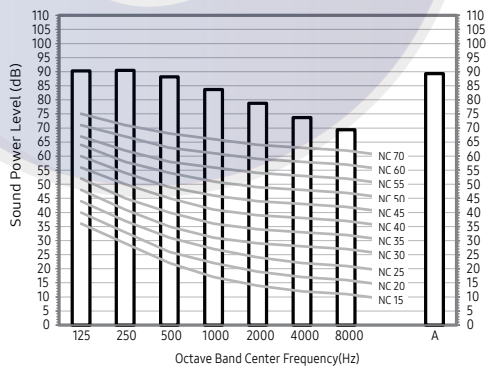
1) AM240MXVAJC/AZ



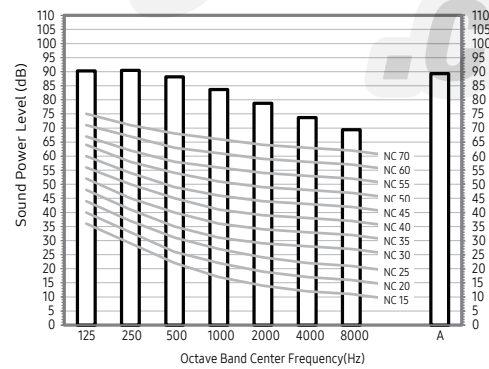
2) AM260MXVAJC/AZ



3) AM280MXVAJC/AZ



4) AM300MXVAJC/AZ

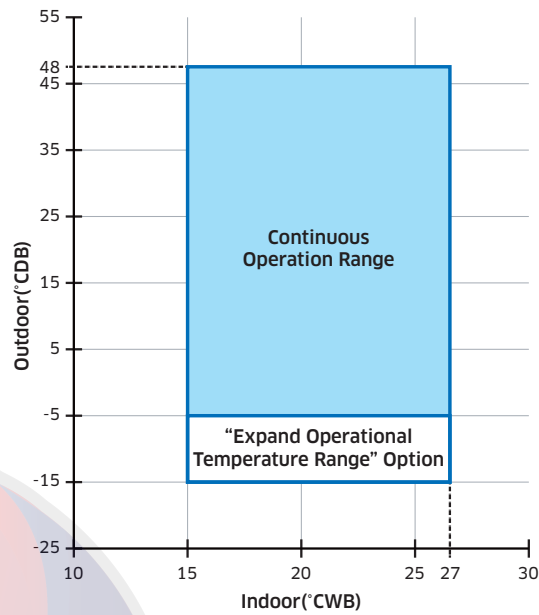


NOTE

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 - 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.

8. Operation Range

Cooling

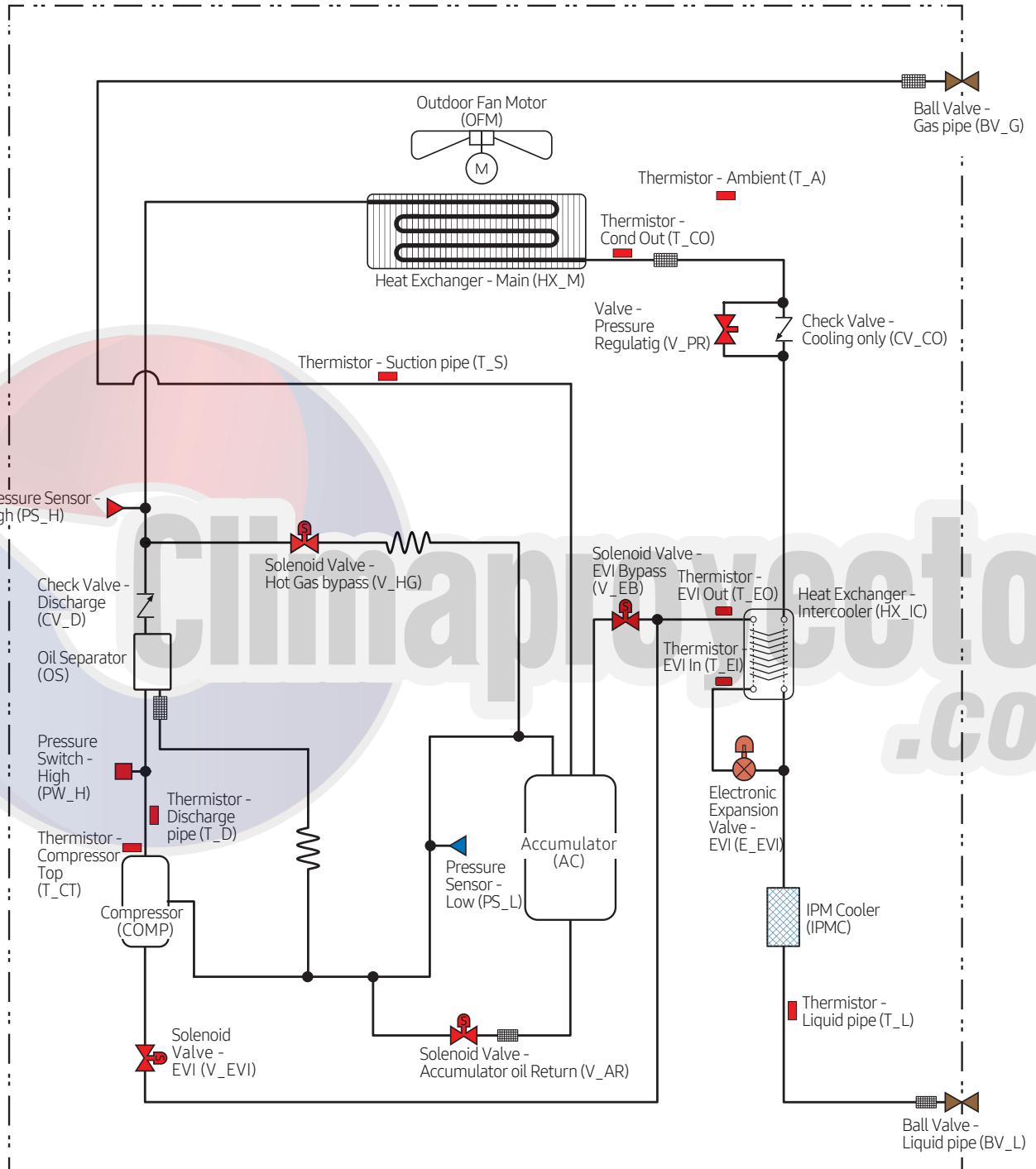


- (1) The operating range is shown in these figures
- (2) The assumed installation conditions are as follows
 - Outdoor units and indoor units combination
 - The Pipe length(including elbow) is 5m
 - The Level difference is 0m
- (3) In the low temperature expansion option application, the cooling operating is possible under expand operational range only for HR system

9. Piping Diagram

Outdoor unit

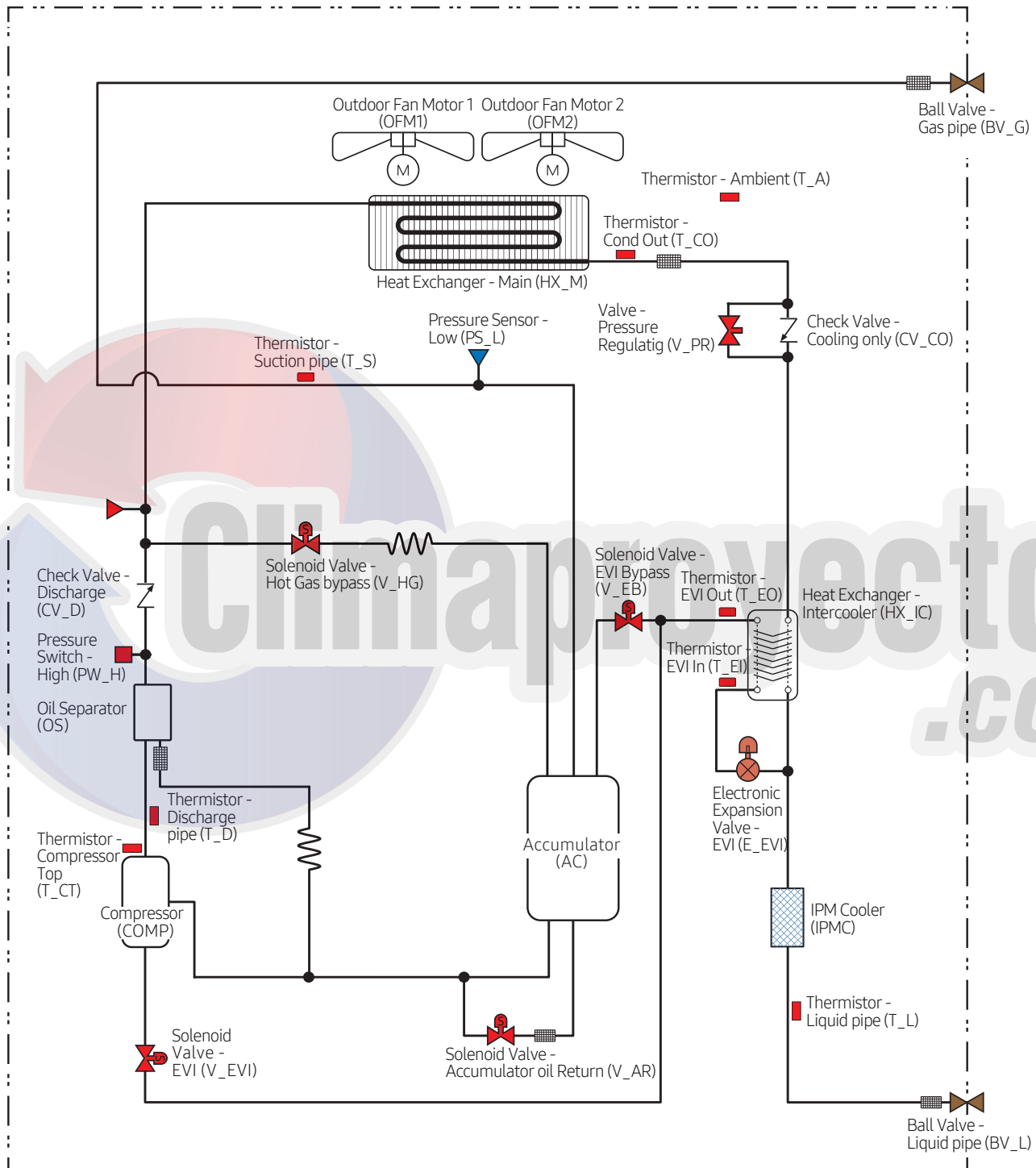
(1) AM080~120MXVAJC/AZ



9. Piping Diagram

Outdoor unit

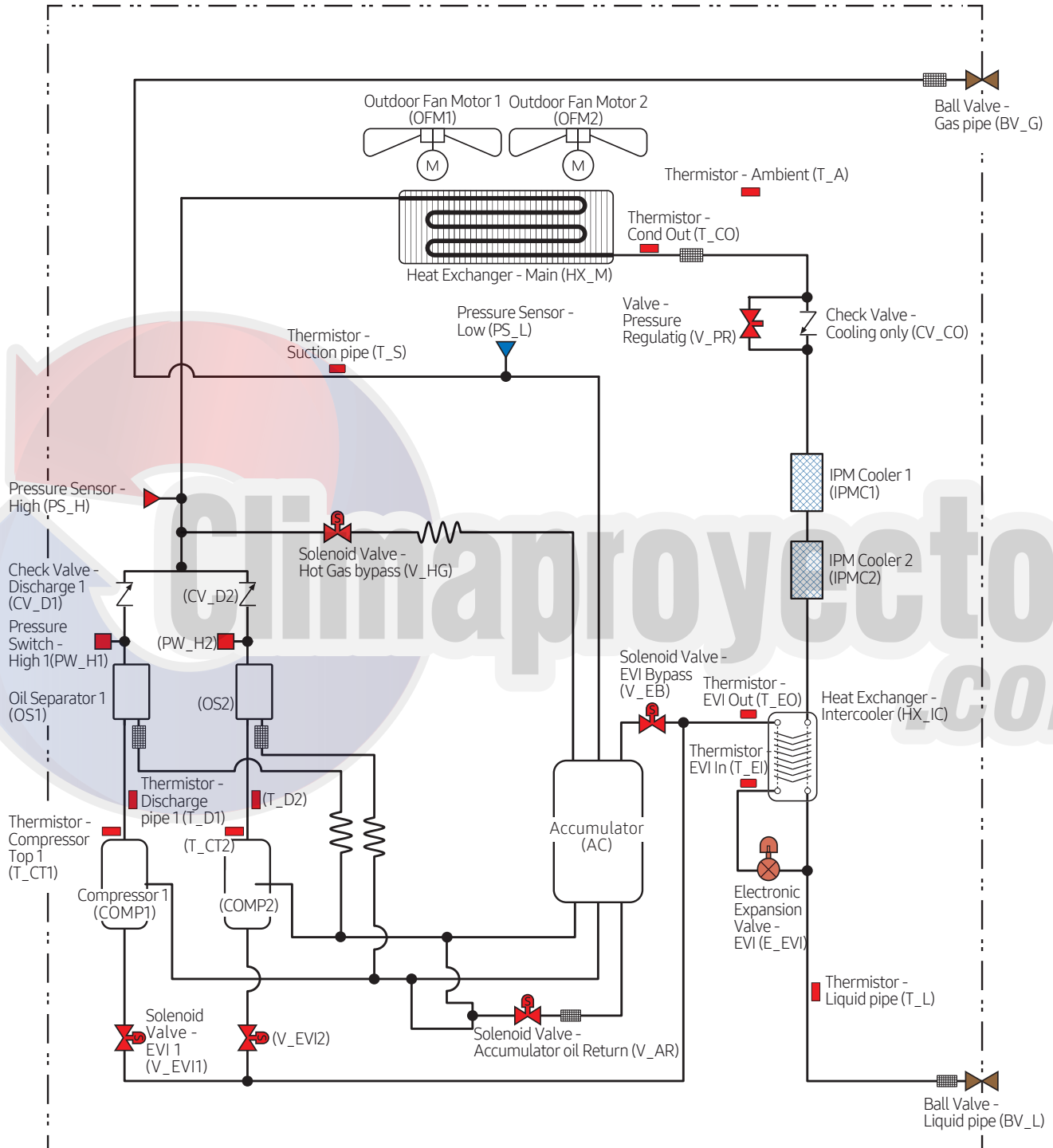
(2) AM140~180MXVAJC/AZ



9. Piping Diagram

Outdoor unit

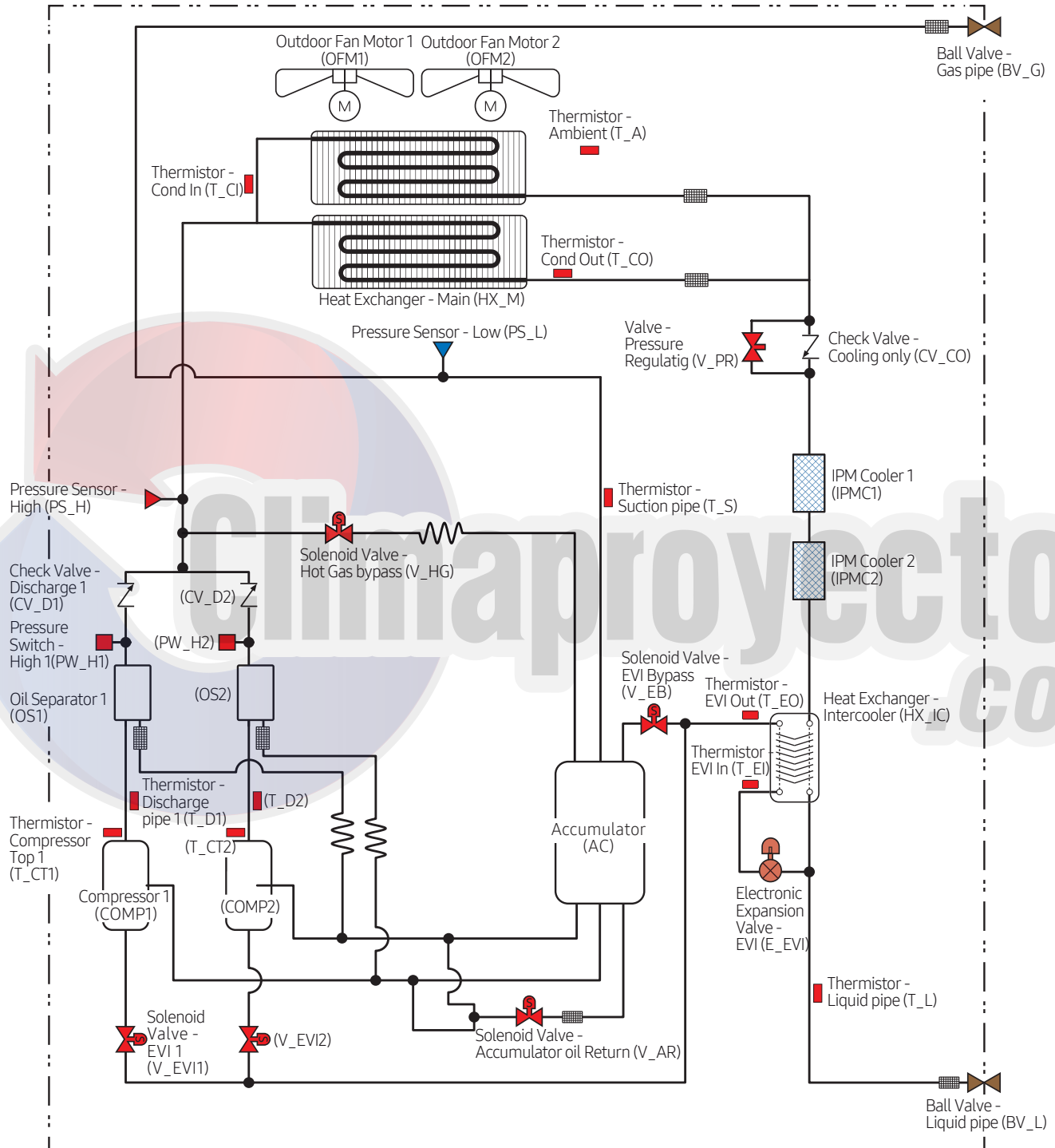
(3) AM200~220MXVAJC/AZ



9. Piping Diagram

Outdoor unit

(4) AM240~300MXVAJC/AZ



10. Installation

Selecting installation location

Decide the installation location, with the consideration of the following conditions, under user's approval.

- Place where hot discharge air or noise from the outdoor unit may not disturb the neighbor (Especially in residential areas, keep the operation hours in mind.)
- Place where structure can bear the weight and vibration of the outdoor unit.
- Place with flat surface where rainwater does not settle or leak.
- Place where it is not exposed to strong wind.
- Well ventilated place with sufficient service place for repairs and maintenance. (Discharge duct can be purchased separately)
- Place where you can connect the refrigerant pipes between indoor and outdoor units within allowable distance.
- Place where there is no risk of inflammable gas leakage.
- Place where there is no direct influence of snow or rain.

Installation Guide at the seashore

Make sure to follow below guides when installing at the seashore.

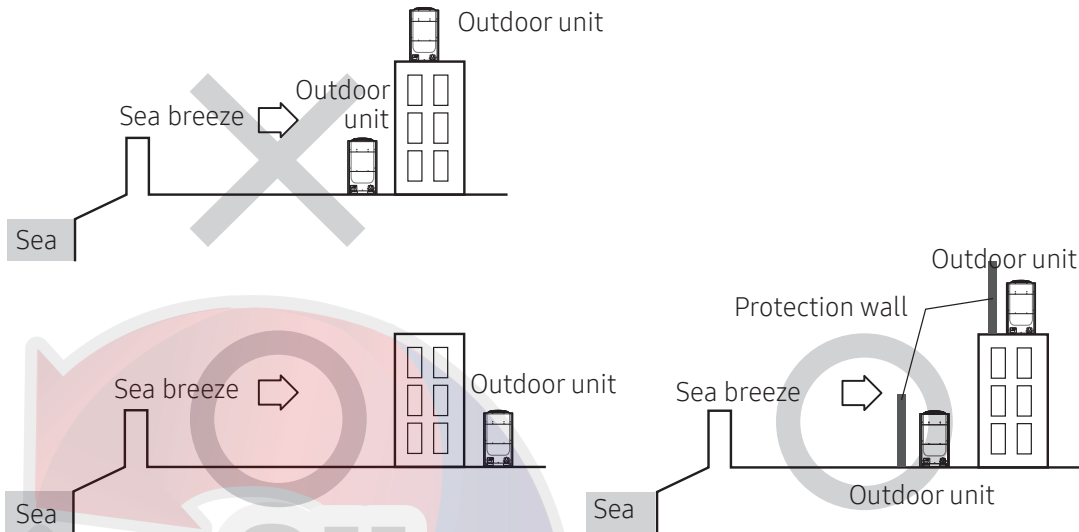
- (1) Do not install the product in a place where it is directly exposed to sea water and sea breeze.
 - Make sure to install the product behind a structure (such as building) that can block sea breeze.
 - Even when it is inevitable to install the product in seashore, make sure that product is not directly exposed to sea breeze by installing a protection wall.
- ※ As we cannot guarantee that the corrosion resistance model(AM***MXVAFCAAZ) can prevent corrosion completely, we recommend that you install a protection wall or install the outdoor unit behind a structure(such as building) that can block sea breeze.
- (2) Consider that the salinity particles clinging to the external panels should be sufficiently washed out.
 - Because the residual water at the bottom of the outdoor unit significantly promotes corrosion, make sure that the slope does not disturb drainage.
 - Keep the floor level so that rain does not accumulate.
- (3) Be careful not to block the drain hole due to foreign substance
- (4) When product is installed in seashore, periodically clean it with water to remove attached salinity.
- (5) Make sure to install the product in a place that provides smooth water drainage.
Especially, ensure that the base part has good drainage.
- (6) If the product is damaged during the installation or maintenance, make sure to repair it.
- (7) Check the condition of the product periodically.
 - Check the installation site every 3 months and perform anti-corrosion treatment such as R-Pro supplied by SAMSUNG (Code : MOK-220SA) or commercial water repellent grease and wax, etc., based on the product condition.
 - When the product is to be shut down for a long period of time, such as off-peak hours, take appropriate measures like covering the product.

※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Selecting installation location

8. If the product installed within 500m of seashore,
- Standard model (AM***MXVA*C/AZ) : Special anti-corrosion treatment is required.
 - Corrosion resistance model (AM***MXVAFCAAZ) : Special anti-corrosion treatment is recommended.
- ※ ※ Please contact your local SAMSUNG representative for further details.



Protection wall should be constructed with a solid material that can block the sea breeze and the height and width of the wall should be 1.5 times larger than the size of the outdoor unit. (You must secure more than 700mm(28inch) of space between the protection wall and the outdoor unit for air circulation.)

※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Selecting installation location



- System air conditioner may cause static noise when listening to AM stations. Therefore, select an installation location for indoor unit where electrical wiring can be done while keeping certain distance from a radio, computer and stereo equipment.
- Especially, keep the unit at least 3m(9.84inch) away from the electrical equipment in an area with weak electromagnetic waves and put the main power cable and communication cables in a separately installed protection tube.
- Make sure that there is no equipment that generates electromagnetic waves. If not electromagnetic waves may cause problem to the control systems which may lead to air conditioner malfunction. (Example: Remote control sensor of the indoor unit may not receive the signal very well, due to ballast stabilizer of the lighting equipment.)
- In regions with heavy snowfall, make sure to install the outdoor unit where there is no concerns of direct snowfall on the outdoor unit. Also, build higher base support so that accumulated snow does not block the air inlet or the heat exchanger.
- R-410A refrigerant is a safe, nontoxic and nonflammable refrigerant. However, if the place holds any concerns for exceeding dangerous level of refrigerant concentration in case of refrigerant leakage, extra ventilation system is required.
- When you install the outdoor unit in a high places such as roof, install fence or guardrail around it. When there is no fence or guardrail, service person could fall.
- Do not install the product in places where corrosive gases such as sulfur oxides, ammonia, and sulfurous gas are produced. (e.g. Toilet outlet, ventilation opening, sewage works, dyeing complex, cattle shed, sulfuric hot spring, nuclear power plant, ship etc.) When installing the product in those places, contact an installation specialty store as the copper pipe and brazing part will need additional corrosion proof or anti-rust additive to prevent corrosion.
- Make sure to keep any inflammable materials (such as wooden materials, oil etc.) around the outdoor unit. When there's fire, those inflammable material will easily catch the fire and may pass it on to the product.
- Depending on the condition of power supply, unstable power or voltage any cause malfunction of the parts or control system. (At the ship or places using power supply from electric generator...etc)

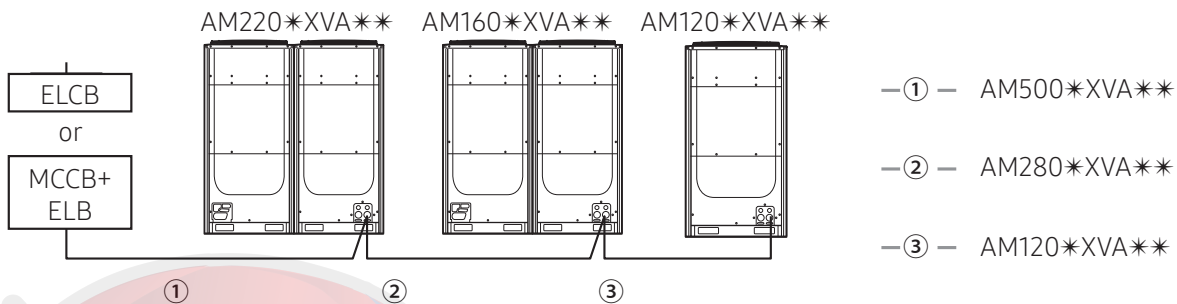
※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Electrical wiring work

- When installing outdoor units in module, select the power supply cable according to the sum of outdoor unit capacity. (Refer to the table for each model)
- Power Supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (Code designation IEC:60245 IEC 66 / CENELEC: H07RN-F)

Ex.) AM500*XVA**



- This device is intended for the connection to a power supply system with a maximum permissible system impedance shown in the table (on the left page) at the interface point (power service box) of the user's supply.
- The user must ensure that this device is connected only to a power supply system which fulfills the requirement above. If necessary, the user can ask the public power supply company for the system impedance at the interface point.

* In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

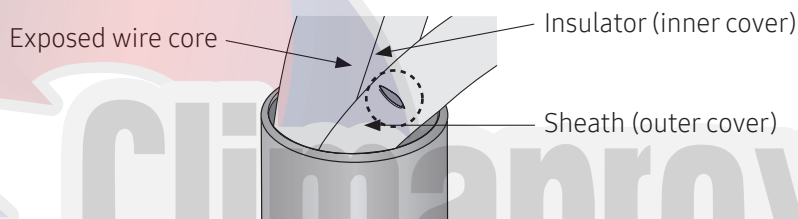
Electrical wiring work



Caution for electrical work

CAUTION

- You must install ELCB or MCCB + ELB
 - ELCB: Earth leakage breaker
 - MCCB: Molded case circuit breaker
 - ELB: Earth leakage breaker
- Do not operate the outdoor unit before completing the refrigerant pipe work.
- Do not disconnect or change the cable inside the product. It may cause damage to the product.
- Specification of the power cable is selected based on following installation condition; culvert installation/ ambient temperature 30 °C/ single multi conductor cables. If the condition is different from the ones stated, please consult an electrical installation expert and re-select the power cable.
 - If the length of power cable exceed 50m, re-select the power cable considering the voltage drop.
- Use a power cable made out of incombustible material for the insulator (inner cover) and the sheath (outer cover).
- Do not use the power cable with the core wire exposed due to insulator damage occurred during removal of the sheath. When the core wire is exposed, it may cause fire.



<The example of exposed core wire>

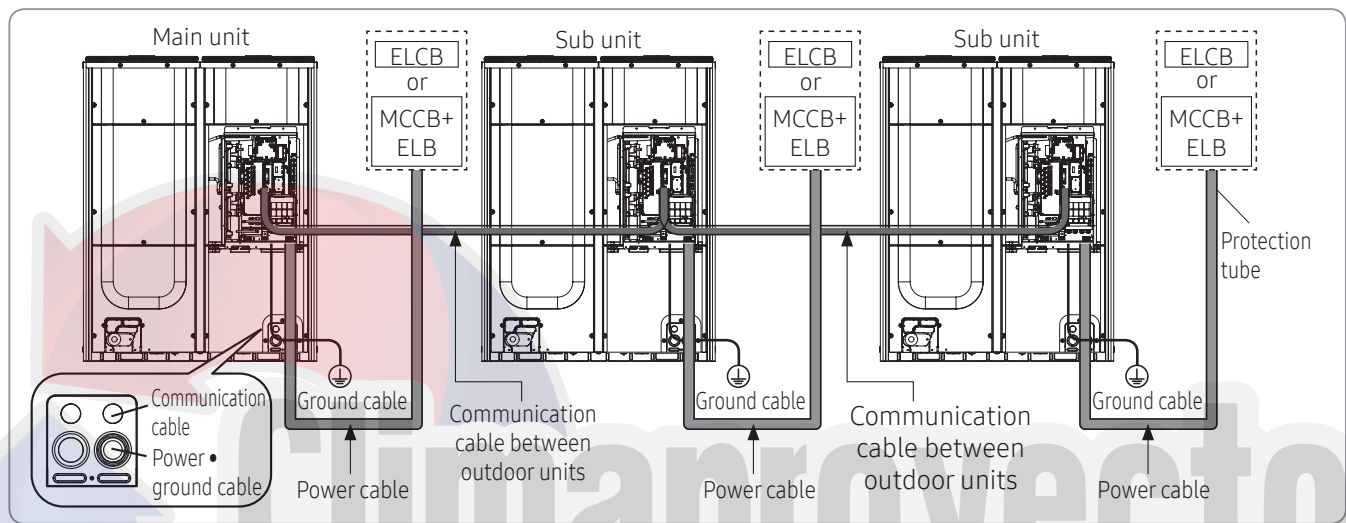
※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Electrical wiring work

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.

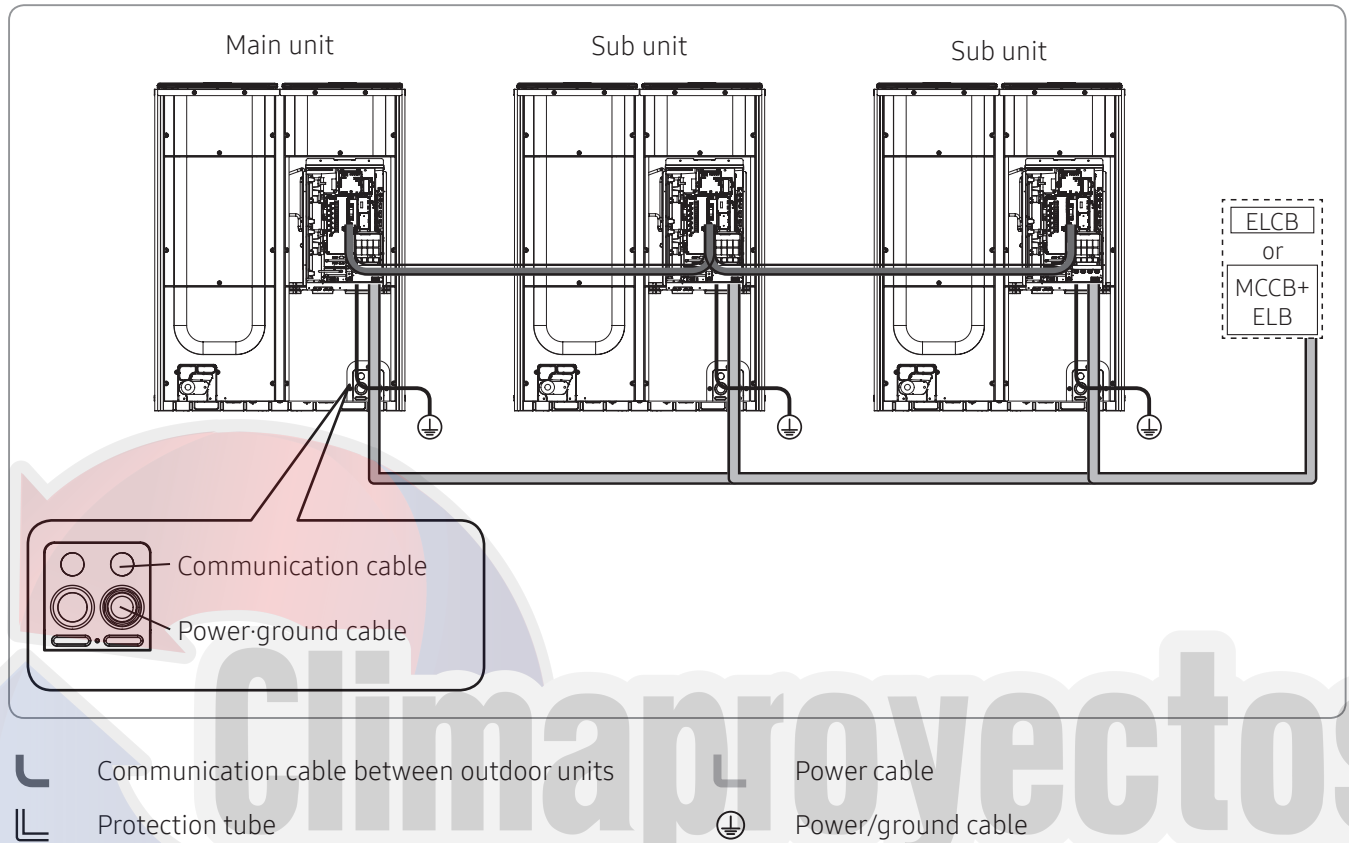


※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Electrical wiring work

<When the module combination is in the tables of "Outdoor unit combination">



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

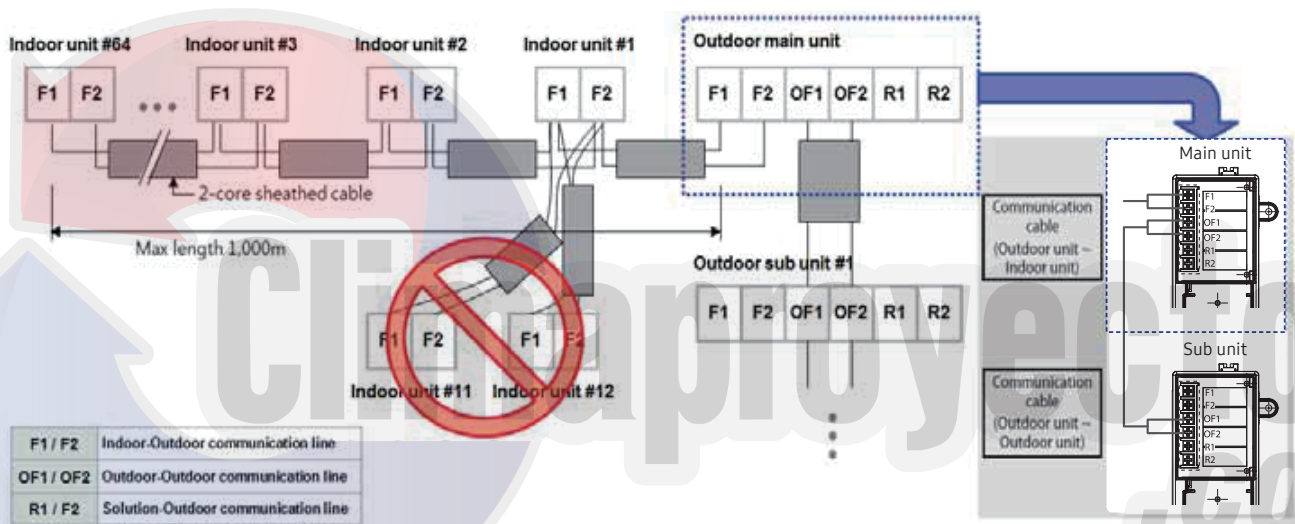
※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Electrical wiring work

Specification of Cable and Connecting method

- ▶ For communication cable, 2-core sheathed vinyl cable should be used which satisfies nominal area of 0.75~1.25mm² thickness. If 2 or more than 3 communication are connected with one cable which is 4, 6 or more strands, communication malfunction could be caused. Only 2-core sheathed vinyl cable should be used for one communication line.
- ▶ Maximum connecting length is limited to 1000 m, so you should follow this limit not to cause malfunction of communication.
- ▶ Maximum number of units that can be connected to the outdoor main unit is 64, so do not exceed this limit.
- ▶ Communication cable should be connected in series as in the figure below, and malfunction of communication can occur if many units are connected to the same terminal.
- ▶ Communication cable between indoor and outdoor units and communication cable between outdoor units has no polarity.



※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

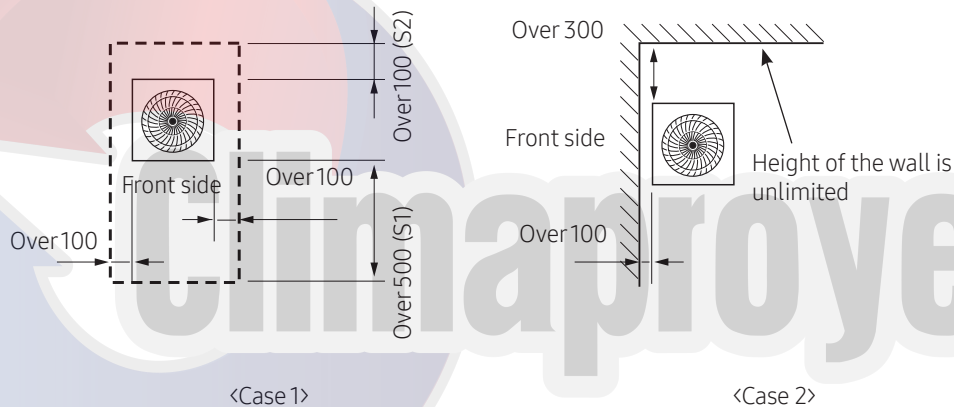
10. Installation

Space requirement for installation

- ▶ Space requirement was decided based on following conditions; Cooling mode, outdoor temperature of 35 °C. Larger space is required if the outdoor temperature is higher than 35 °C 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 of space between the product, but product's performance may decrease depending on the installation environment.

Single installation

(Unit : mm)

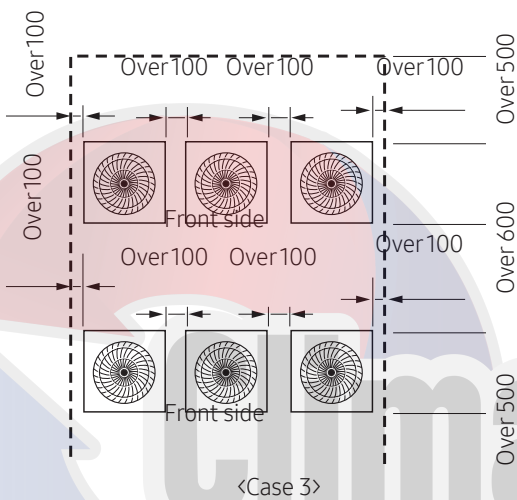
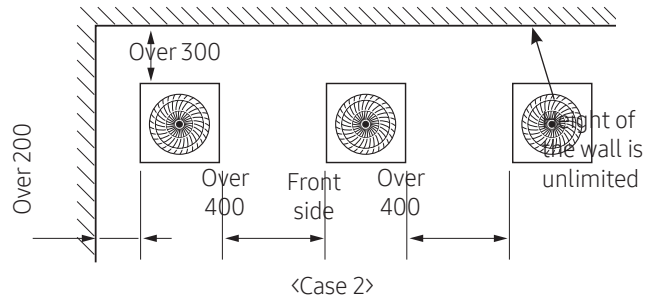
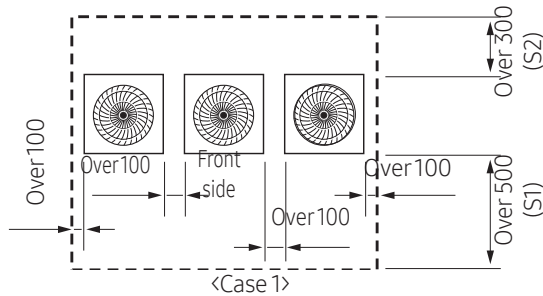


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10. Installation

Space requirement for installation

Module installation

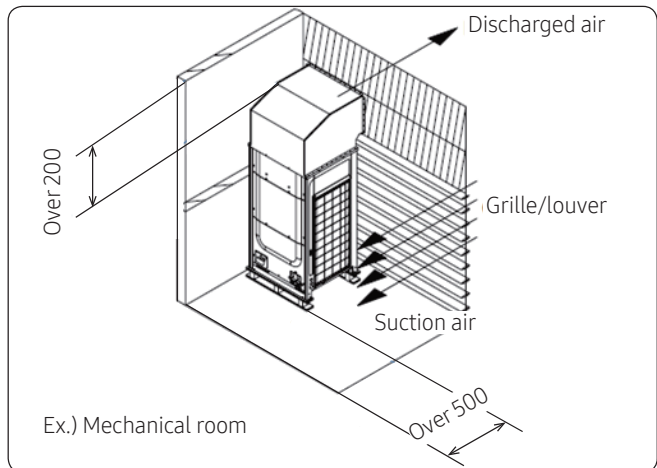
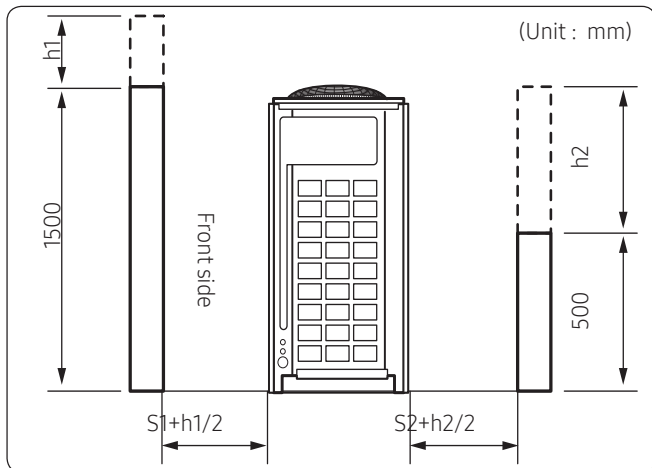


※ For <Case 1> or <Case 3>

- Height of the wall on the front side should not be higher than 1500mm.
- Height of the wall on the air inlet side should not be higher than 500mm.
- 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).

※ At Machinery Room

- Make sure to install both discharge duct and suction grille / louver
- Static pressure of the discharge duct should be within the standard specification (78.45Pa) when installing the duct.
- Secure enough cross-sectional area on grille surface for easy air intake in case of machinery room installation.



※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

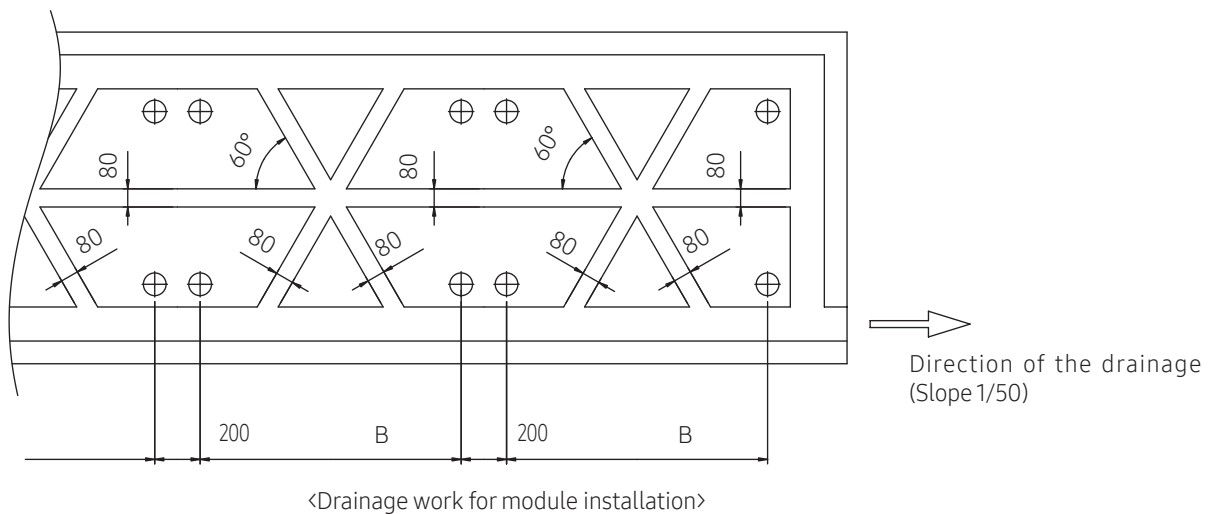
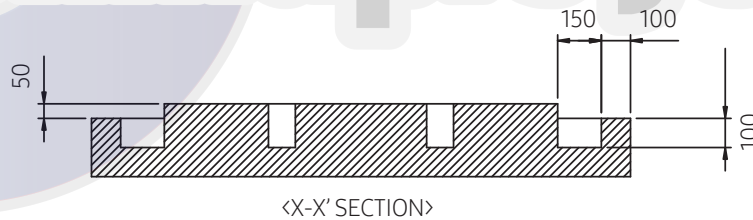
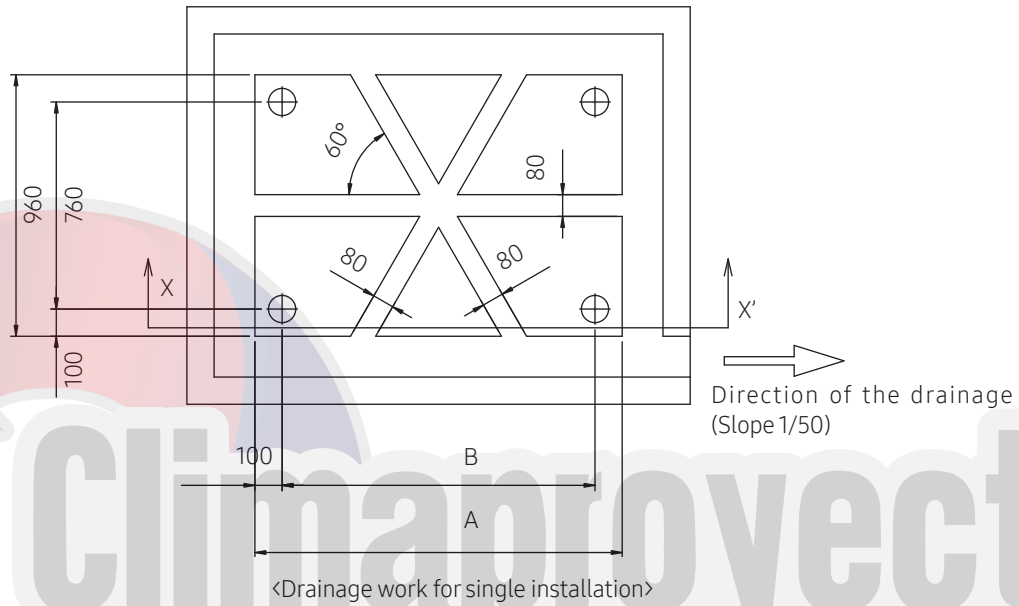
10. Installation

Base construction and installation of the outdoor unit

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)



※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Base construction and installation of the outdoor unit

(Unit : mm)

Classification	DVM S Small Type	DVM S Large A Type	DVM S Large B Type
A	940	1,350	1,350
B	740	1,150	1,150



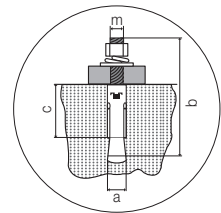
Cautions regarding on connecting the anchor bolt

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



- ▶ Anchor specification

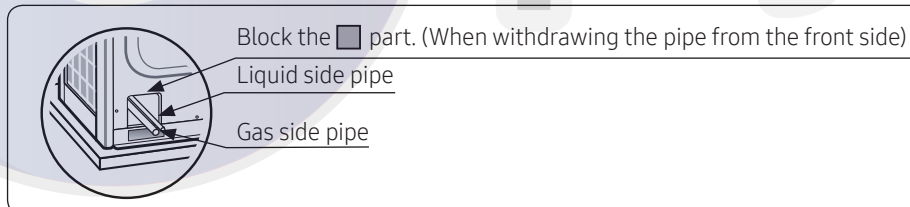
Size	Diameter of drill bit (a)	Anchor length (b)	Sleeve length (c)	Insert depth	Fastening torque
Ø10	14 mm	75 mm	40 mm	50 mm	30 N·m



- ※ 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.

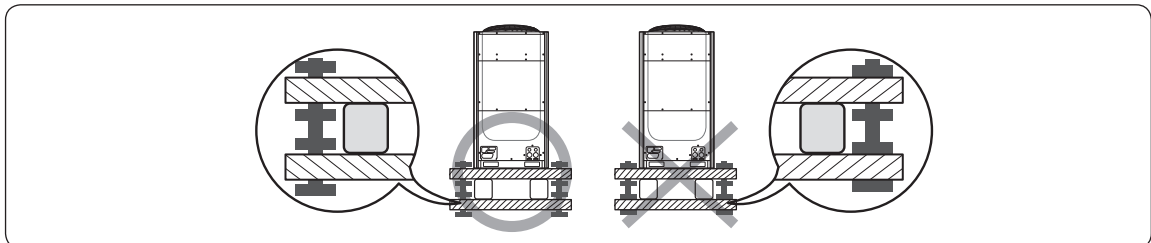
Cautions regarding on connecting the pipe

- ▶ 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.



Cautions 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.

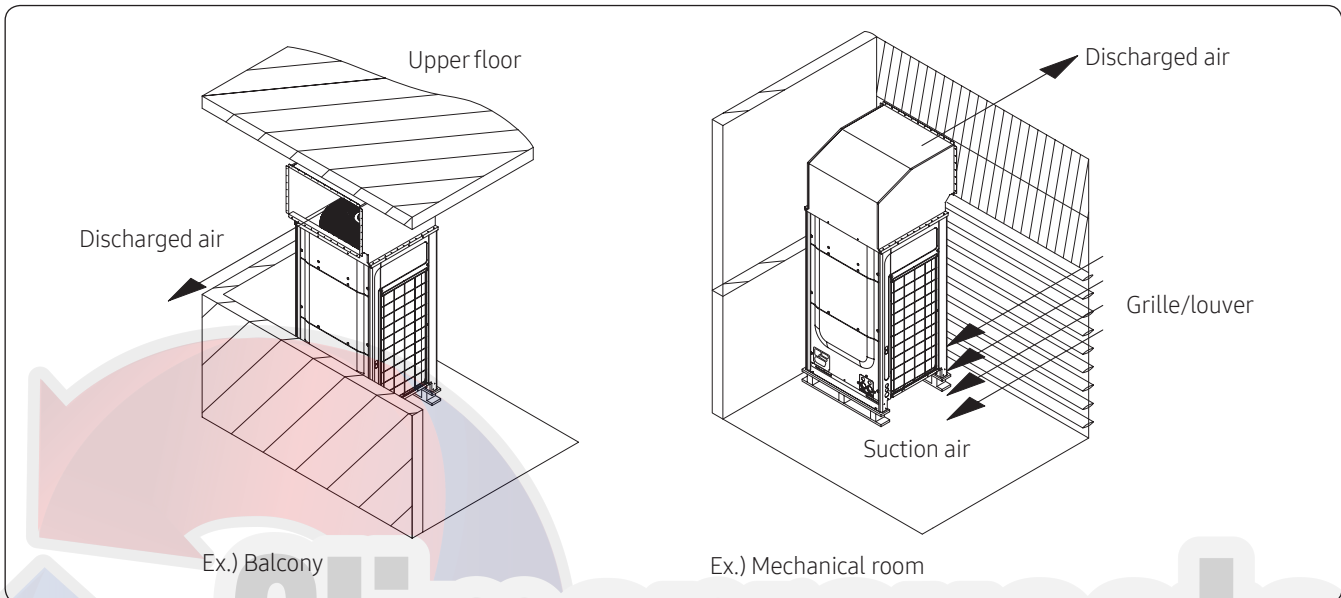
※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Wind/snow prevention duct

Installing the outdoor unit around the obstacles

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



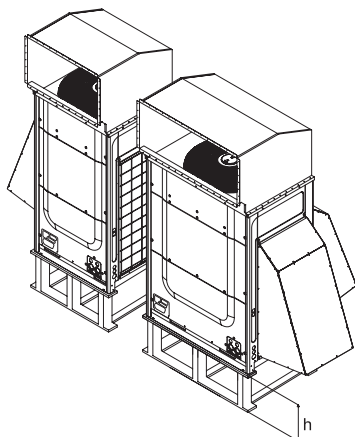
Installing the outdoor unit in cold region

- ▶ 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 are of the outdoor unit. Snow may accumulate if the area of the frame or the base ground is larger.



※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Wind/snow prevention duct

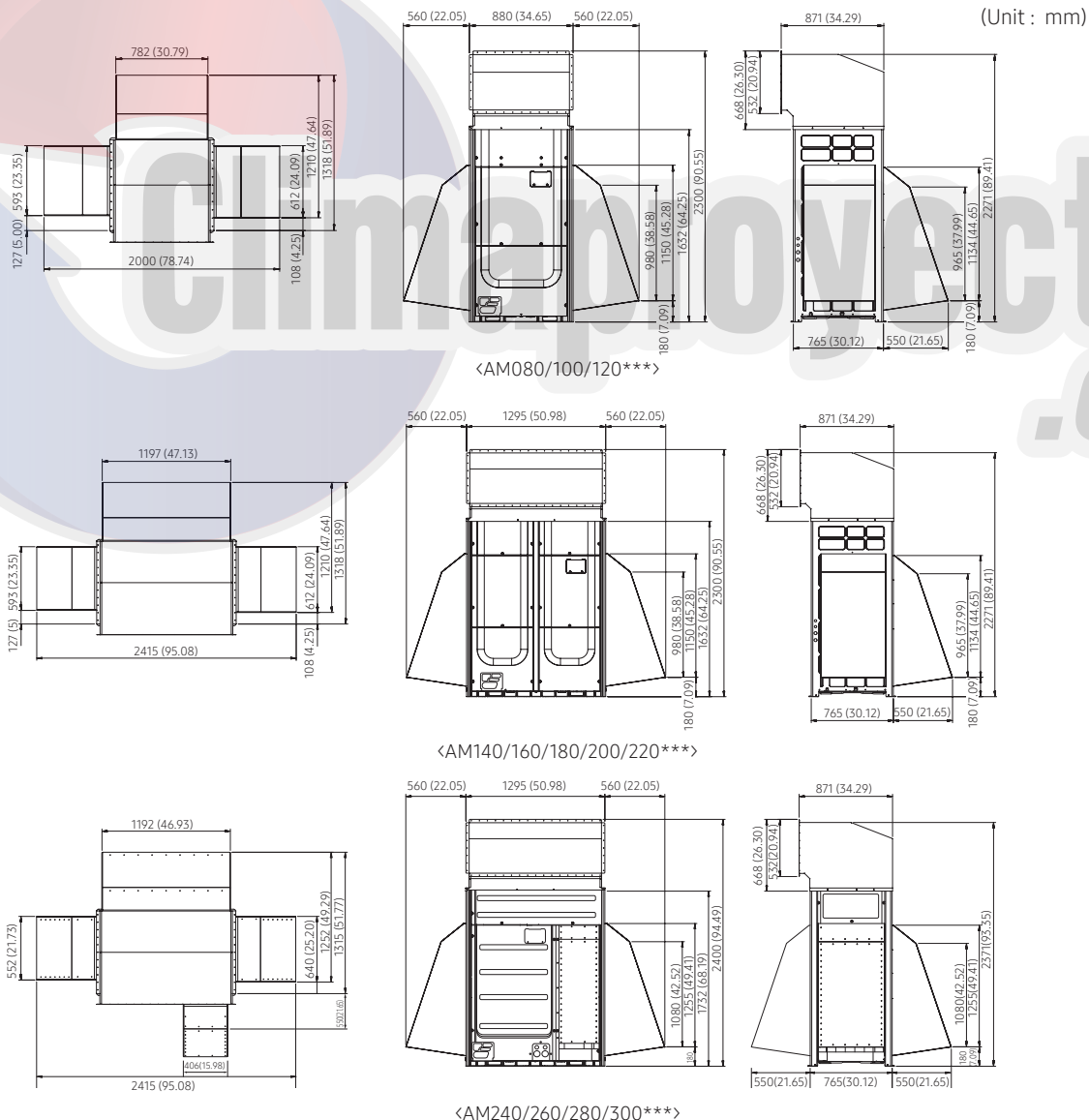
Installing the outdoor unit in windy region

- ▶ 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.



* In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Refrigerant pipe installation

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.

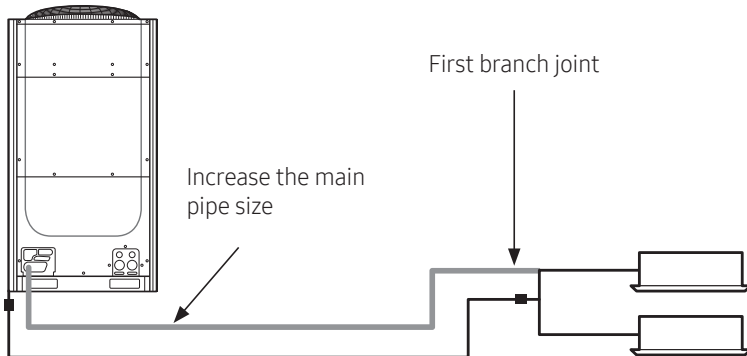
Tool	Installation process/purpose		Compatibility with conventional tool
Pipe cutter	Refrigerant pipe installation	Pipe cutting	Compatible
Flaring tool		Pipe flaring	
Refrigerant machine oil		Apply refrigerant oil on flared part	Exclusive ether oil, ester oil, alkali benzene oil or synthetic oil
Torque wrench		Connect flare nut with pipe	Compatible
Pipe bender		Pipe bending	
Nitrogen gas	Prevent oxidation within the pipe		
Welder	Air tightness test	Pipe welding	
Manifold gage	Air tightness test ~ additional refrigerant charging	Vacuuming, charging refrigerant and checking operation	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 inflow 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	Refrigerant charging		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.		

※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

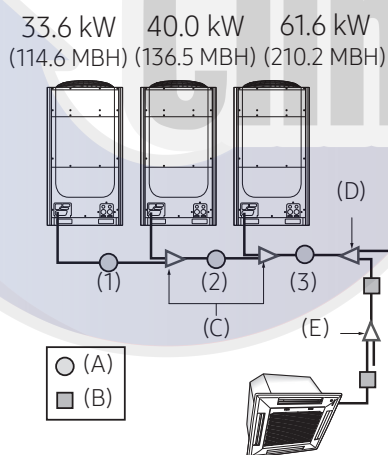
Refrigerant pipe installation

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, 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.

C/O



Ex.) 135.2 kW (461.3 MBH)

Capacity (kW)	No.	Pipe size [mm (inch)]	
		Liquid pipe	Gas pipe
33.6 kW (114.6 MBH)	(1)	Ø 12.70 (1/2)	Ø 28.58 (1 1/8)
73.6 kW (251.1 MBH)	(2)	Ø 19.05 (3/4)	Ø 34.92 (1 3/8)
135.2 kW (461.3 MBH)	(3)	Ø 19.05 (3/4)	Ø 41.28 (1 5/8)

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10. Installation

Refrigerant pipe installation

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

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

Outdoor unit capacity [kW (MBH)]	Main pipe length within 90 m (295 ft)		Size Up (Main pipe length over 90 m (295 ft))	
	Liquid pipe [mm (inch)]	Gas pipe [mm (inch)]	Liquid pipe [mm (inch)]	Gas pipe [mm (inch)]
22.4 kW (76.4 MBH)	Ø 9.52 (3/8)	Ø 19.05 (3/4)	Ø 12.70 (1/2)	Ø 22.22 (7/8)
28.0 kW (95.5 MBH)		Ø 22.22 (7/8)		Ø 25.40 (1) ^{note1)}
33.6 kW (114.6 MBH)	Ø 12.70 (1/2)	Ø 28.58 (11/8)	Ø 15.88 (5/8)	Ø 28.58 (11/8)
40.0 kW (136.5 MBH)				
45.0 kW (153.5 MBH)				
50.4 kW (172.0 MBH)				
56.0 kW (191.1 MBH)	Ø 15.88 (5/8)	Ø 28.58 (11/8)	Ø 19.05 (3/4)	Ø 31.75 (11/4) ^{note2)}
61.6 kW (210.2 MBH)				
67.2 kW (229.3 MBH)				
73.4 kW ~ 84.0 kW (251.1 MBH ~ 286.6 MBH)	Ø 19.05 (3/4)	Ø 34.92 (1 3/8)	Ø 22.22 (7/8)	Ø 38.10 (1 1/2) ^{note3)}
89.6 kW ~ 95.2 kW (305.7 MBH ~ 324.8 MBH)				
101.6 kW (346.7 MBH)				
106.6 kW ~ 135.2 kW (363.7 MBH ~ 461.3 MBH)				
140.2 kW ~ 168.2 kW (478.4 MBH ~ 573.9 MBH)	Ø 22.22 (7/8)	Ø 41.28 (1 5/8)	Ø 25.40 (1) ^{note1)}	Ø 41.28 (1 5/8)
173.6 kW ~ 224.8 kW (592.3 MBH ~ 767.0 MBH)		Ø 53.98 (2 1/8)		Ø 53.98 (2 1/8)

Note1) If Ø 25.40mm (Ø 1") pipe is not available on site, use Ø 28.58mm (Ø 1 1/8") pipe.

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

Note3) If Ø 38.10mm (Ø 1 1/2") pipe is not available on site, use Ø 41.28 (Ø 1 5/8") pipe.

※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Refrigerant pipe 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 [kW (MBH)]	Branch pipe length within 45 m (147.64 ft) ^{note1)}		Branch pipe length between 45~90 m (147.64~295.28 ft) ^{note1)}	
	Liquid pipe [mm (inch)]	Gas pipe [mm (inch)]	Liquid pipe [mm (inch)]	Gas pipe [mm (inch)]
15.0 kW (51.2 MBH) and below	Ø 9.52 (3/8)	Ø 15.88 (5/8)	Ø 12.70 (1/2)	Ø 19.05 (3/4)
Over 15.0 kW~22.4 kW (51.2 ~ 76.4 MBH) and below		Ø 19.05 (3/4)		Ø 22.22 (7/8)
Over 22.4 kW~28.1 kW (76.4 ~ 95.9 MBH) and below		Ø 22.22 (7/8)		Ø 25.40 (1) ^{note2)}
Over 28.1 kW~40.0 kW (95.9 ~ 136.5 MBH) and below	Ø 12.70 (1/2)	Ø 28.58 (1 1/8)	Ø 15.88 (5/8)	Ø 28.58 (1 1/8)
Over 40.0 kW~45.0 kW (136.5 ~ 153.5 MBH) and below				Ø 31.75 (1 1/4) ^{note3)}
Over 45.0 kW~63.3 kW (153.5 ~ 216.0 MBH) and below	Ø 15.88 (5/8)	Ø 34.92 (1 3/8)	Ø 19.05 (3/4)	Ø 38.10 (1 1/2) ^{note4)}
Over 63.3 kW~70.3 kW (216.0 ~ 239.9 MBH) and below				Ø 41.28 (1 5/8)
Over 70.3 kW~98.4 kW (239.9 ~ 335.8 MBH) and below	Ø 19.05 (3/4)	Ø 41.28 (1 5/8)	Ø 22.22 (7/8)	Ø 41.28 (1 5/8)
Over 98.4 kW~135.2 kW (335.8 ~ 461.3 MBH) and below				Ø 53.98 (2 1/8)
Over 135.2 kW~169.0 kW (461.3 ~ 576.7 MBH) and below	Ø 22.22 (7/8)	Ø 53.98 (2 1/8)	Ø 25.40 (1) ^{note2)}	Ø 53.98 (2 1/8)
Over 169.0 kW (576.7 MBH)				

^{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 Ø 25.40 mm (Ø 1") pipe is not available on site, use Ø 28.58 mm (Ø 1 1/8") pipe.

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

^{Note4)} If Ø 38.10 mm (Ø 1 1/2") pipe is not available on site, use Ø 41.28 mm (Ø 1 5/8") pipe.

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

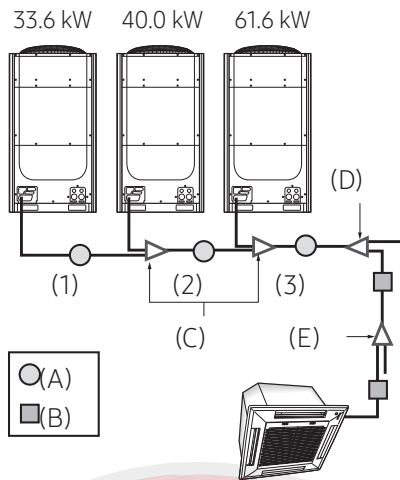
Make a selection according to outdoor unit capacity.

Indoor unit capacity [kW (MBH)]	Pipe size (O.D. [mm (inch)])	
	Liquid pipe	Gas pipe
6.0 kW (20.5 MBH) and below	Ø 6.35 (1/4)	Ø 12.70 (1/2)
7.1 kW ~ 16.0 kW (24.2 MBH ~ 54.6 MBH) and below	Ø 9.52 (3/8)	Ø 15.88 (5/8)
20.0 kW ~ 23.0 kW (68.2 MBH ~ 78.5 MBH) and below	Ø 9.52 (3/8)	Ø 19.05 (3/4)
Over 23.0 kW (78.5 MBH)	Ø 9.52 (3/8)	Ø 22.22 (7/8)

※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Refrigerant pipe installation



Branch joint

- ▶ Branch joint between outdoor units (C)

Classification	Model name	Specification [kW (MBH)]
Y-joint for outdoor unit (C)	MXJ-TA3419M	135.2 kW (461.3 MBH) and below
	MXJ-TA4122M	Over 140.2 kW (478.4 MBH)

- ▶ First branch joint (D)
Make a selection according to outdoor unit capacity.

Classification	Outdoor unit capacity [kW (MBH)]	Model name of the branch joint
Y-joint (D)	15.0 kW ~ 40.0 kW (51.2 ~ 136.5 MBH) and below	MXJ-YA2512M
	40.0 kW ~ 45.0 kW (136.5 ~ 153.5 MBH) and below	MXJ-YA2812M
	45.0 kW ~ 70.3 kW (153.5 ~ 239.9 MBH) and below	MXJ-YA2815M
	70.3 kW ~ 98.4 kW (239.9 ~ 335.8 MBH) and below	MXJ-YA3419M
	98.4 kW ~ 135.2 kW (335.8 ~ 461.3 MBH) and below	MXJ-YA4119M
	Over 135.2 kW (461.3 MBH)	MXJ-YA4422M

※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Refrigerant pipe installation

► Branch joint (E)

Select a branch joint 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 (E) is bigger than the size of the pipe connected to the outdoor unit (D), apply the pipe size (D).

1) Y-joint

Classification	Model name	Specification [kW (MBH)]
Y-joint (E)	MXJ-YA1509M	15.0 kW (51.2 MBH) and below
	MXJ-YA2512M	Over 15.0 kW ~ 40.0 kW (51.2 ~ 135.2 MBH) and below
	MXJ-YA2812M	Over 40.0 kW ~ 45.0 kW (136.2 ~ 153.5 MBH) and below
	MXJ-YA2815M	Over 45.0 kW ~ 70.3 kW (153.5 ~ 239.9 MBH) and below
	MXJ-YA3419M	Over 70.3 kW ~ 98.4 kW (239.9 ~ 335.8 MBH) and below
	MXJ-YA4119M	Over 98.4 kW ~ 135.2 kW (335.8 ~ 461.3 MBH) and below
	MXJ-YA4422M	Over 135.2 kW (461.3 MBH)

2) Distribution header

Classification	Model name	Specification [kW (MBH)]
Distribution header (E)	MXJ-HA2512M	45.0 kW (153.5 MBH) and below (for 4 rooms)
	MXJ-HA3115M	70.3 kW (239.9 MBH) and below (for 8 rooms)
	MXJ-HA3819M	Over 70.3 kW ~ 135.2 kW (239.9 ~ 461.3 MBH) and below (for 8 rooms)

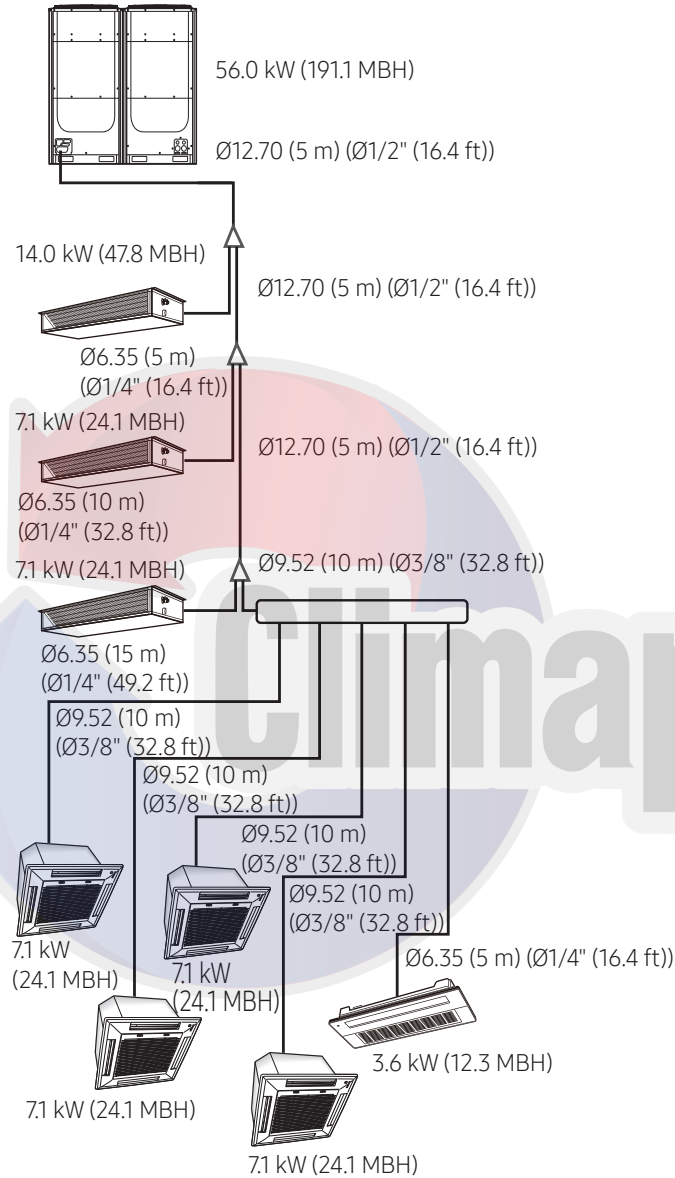
※ In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Refrigerant pipe installation

Additional refrigerant

C/O



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10. Installation

Refrigerant pipe installation

Refrigerant pipe installation

- ▶ 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	AM080MXVAJC/AZ	AM100MXVAJC/AZ	AM120MXVAJC/AZ	AM140MXVAJC/AZ	AM160MXVAJC/AZ	AM180MXVAJC/AZ
Basic type [kg]	5.5	5.5	5.5	7.7	8.4	8.4
Classification	AM200MXVAJC/AZ	AM220MXVAJC/AZ	AM240MXVAJC/AZ	AM260MXVAJC/AZ	AM280MXVAJC/AZ	AM300MXVAJC/AZ
Basic type [kg]	8.4	8.4	12.5	12.5	12.5	12.5

- ▶ Amount of additional refrigerant depending on the pipe size (㉑)

- 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 0.01kg per meter regardless of the pipe size.

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10. Installation

Refrigerant pipe installation

► Amount of additional refrigerant for each indoor unit (b)

(Unit : kg(lb))

Capacity (MBH)	5	6	7	9	12	15	18	19	20	24	27	28	30	32	36	38	42	48	54	60	72	76	96	110	170	500 CMH	1000 CMH
1Way Cassette (AM***FN1DCH/**) (AM***NN1DCH/**)			0.25 (0.55)	0.25 (0.55)	0.25 (0.55)		0.32 (0.71)			0.32 (0.71)																	
2Way Cassette (AM***N2DCH/**)							0.31 (0.68)			0.47 (1.04)																	
4Way Cassette (600x600) (AM***NNDCH/**)	0.29 (0.64)		0.29 (0.64)	0.29 (0.64)	0.29 (0.64)		0.37 (0.82)		0.37 (0.82)																		
4Way Cassette (AM***FN4DCH/**) (AM***NN4DCH/**)				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)									
4Way Cassette (AM***JN4DCH/**) (AM***JN4PCH/**)		0.45 (0.99)											1.00 (2.20)					1.00 (2.20)									
360 Cassette (AM***KN4DCH/**)				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)									
Duct S (AM***MMDCH/**)			0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)	0.45 (0.99)																				
Duct S (AM***KNHPKH/**)					0.22 (0.49)		0.22 (0.49)			0.22 (0.49)			0.31 (0.68)	0.38 (0.84)			0.38 (0.84)	0.38 (0.84)									
Duct S (AM***MNHDC/**)										0.68 (1.50)	0.68 (1.50)		0.68 (1.50)	0.84 (1.85)				0.84 (1.85)									
Slim duct (AM***FLDCH/**)			0.35 (0.77)	0.35 (0.77)	0.35 (0.77)		0.45 (0.99)			0.45 (0.99)			0.42 (0.93)	0.42 (0.93)				0.62 (1.37)									
Slim duct (with drain pump) (AM***KNLDCH/**)			0.35 (0.77)	0.35 (0.77)	0.35 (0.77)		0.45 (0.99)			0.45 (0.99)			0.42 (0.93)	0.42 (0.93)				0.62 (1.37)									
MSP duct (AM***FNMDCH***) (AM***JNMDCH***) (AM***KNMDCH***) (AM***JNHDC***)				0.37 (0.82)	0.37 (0.82)	0.37 (0.82)	0.37 (0.82)	0.54 (1.19)		0.47 (1.04)	0.47 (1.04)		0.47 (1.04)	0.68 (1.50)				0.68 (1.50)	0.91 (2.01)								
MSP duct (AM***NMPCH***)		0.37 (0.82)			0.68 (1.50)		0.68 (1.50)					0.68 (1.50)					0.68 (1.50)										
HSP duct (AM***FNHDC/**)														0.68 (1.50)			0.68 (1.50)					1.18 (2.60)	1.18 (2.60)				
Big duct (AM***JNHFKH/**)																			1.15 (2.54)		1.15 (2.54)						
OAP duct (AM***NE*CH/**)																		0.68 (1.50)		1.18 (2.60)		1.18 (2.60)					
Concealed Floor Standing (AM***NFDCH/**) (AM***NGDCH/**)		0.12 (0.26)		0.22 (0.49)	0.22 (0.49)		0.32 (0.71)			0.32 (0.71)																	
Floor Standing (AM***NPD*H/**)																		0.69 (1.52)					1.85 (4.08)				
Ceiling (AM***NCD*H/**)							0.39 (0.86)			0.39 (0.86)					0.56 (1.23)	0.56 (1.23)		0.95 (2.09)									
V-AHU (AM***NZDCH/**)					0.33 (0.73)		0.50 (1.10)			0.50 (1.10)			0.83 (1.83)	0.88 (1.94)			1.18 (2.60)	1.27 (2.80)	1.69 (3.73)	1.69 (3.73)							
Wall mounted (Neo forte) (AM***FNTDCH/**)			0.24 (0.53)	0.24 (0.53)	0.24 (0.53)		0.36 (0.79)		0.36 (0.79)	0.36 (0.79)																	
Wall mounted (Neo forte with EEV) (AM***FNQDCH/**) (AM***HNQDCH/**)			0.34 (0.75)	0.34 (0.75)	0.34 (0.75)		0.51 (1.12)		0.51 (1.12)	0.51 (1.12)																	
Wall mounted (AR5000) (AM***NADKH/**)	0.16 (0.35)		0.16 (0.35)	0.19 (0.42)	0.25 (0.55)	0.25 (0.55)		0.52 (1.15)		0.52 (1.15)		0.52 (1.15)															

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10. Installation

Capacity (MBH)	5	6	7	9	12	15	18	19	20	24	27	28	30	32	36	38	42	48	54	60	72	76	96	110	170	500 CMH	1000 CMH	
Wall mounted (AR5000 with EEV) (AM***NVD*H/**)	0.22 (0.49)		0.22 (0.49)	0.25 (0.55)	0.34 (0.75)	0.34 (0.75)	0.71 (1.57)	0.71 (1.57)		0.71 (1.57)		0.71 (1.57)																
Wall mounted (New Boracay) (AM***KNTDCH/**)			0.24 (0.53)	0.32 (0.71)	0.32 (0.71)		0.49 (1.08)		0.49 (1.08)	0.49 (1.08)																		
Wall mounted (New Boracay with EEV) (AM***KNQDCH/**)			0.24 (0.53)	0.32 (0.71)	0.32 (0.71)		0.49 (1.08)		0.49 (1.08)	0.49 (1.08)																		
Wall mounted (MAX 4 with EEV) (AM***MNQDCH/**)														0.68 (1.50)														
ERV plus (AM***NKDEH/**)																										0.11 (0.24)	0.36 (0.79)	
Hydro Unit HE (AM***NBDEH/**)																			0.60 (1.32)					0.70 (1.54)	1.20 (2.65)			
MCU (MCU-S*NE**N)	0.50 (1.10)																											

- ▶ If AHU kit is included among the indoor units, you must add 0.063kg of refrigerant for every 1kW of the AHU capacity increase.

Note¹⁾ In case the capacity conjunction of the Hydro Unit HT exceeds 50 % among the total indoor unit, please don't put the additional refrigerant.



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10. Installation

Refrigerant pipe installation

- ▶ Method to calculate total amount of additional refrigerant
 - Amount of additional refrigerant depending on the pipe length (a)
 - Amount of additional refrigerant for each indoor unit (b) = Σ (Amount of additional refrigerant for each connected indoor unit) * Refer to the table
 - Total amount of additional refrigerant = a+b
- * Sum of total amount of additional refrigerant and the basic amount of refrigerant should not exceed 100kg. If the refrigerant exceeds 100kg, separate the module so that weight of the refrigerant doesn't exceed 100kg.
 Ex.) For AM200FXVAG*, basic amount of refrigerant is 8.4kg, therefore total amount of additional refrigerant (a+b) should not exceed 91.6 kg.

▶ Example of refrigerant calculation

Classification	Size of liquid pipe	Length (m)	Unit amount of refrigerant (kg/m)	Amount of additional refrigerant (kg)	Total amount of additional refrigerant (kg)
		①	②	①×②	Σ (①×②)
Liquid pipe (a)	Ø 6.35	35	0.02	0.7	a 5.575
	Ø 9.52	50	0.06	3.0	
	Ø 12.70	15	0.125	1.875	

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 (b)	4way cassette (AM071FN4DEH*)	4	0.45	1.80	b 3.10
	Slim duct (AM056FNLDEH*)	2	0.35	0.70	
	Slim duct (AM045FNLDEH*)	1	0.35	0.35	
	1way cassette (AM036FN1DEH*)	1	0.25	0.25	

- Total amount of refrigerant (a+b) = 5.575+3.10 = 8.675 (kg)

▶ Example of refrigerant calculation for HR models

Classification	Size of liquid pipe	Length (m)	Unit amount of refrigerant (kg/m)	Amount of additional refrigerant (kg)	Total amount of additional refrigerant (kg)
		①	②	①×②	Σ (①×②)
Liquid pipe (a)	Ø 6.35	15	0.02	0.3	a 11.965
	Ø 9.52	112	0.06	6.72	
	Ø 12.70	25	0.125	3.125	
	Ø 15.88	10	0.18	1.8	
	Ø 6.35 (EEV Kit ~ indoor unit)	2	0.01	0.02	

* In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Refrigerant pipe 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 (b)	4way cassette (AM071FN4DEH*)	5	0.45	2.25	b) 4.66
	4way cassette (AM112FN4DEH*)	2	0.57	1.14	
	Neo forte (AM028FNTDEH*)	1	0.27	0.27	
	MCU	2	0.5	1	

- Total amount of refrigerant (a)+b) = 11.965+4.66 = 16.625 (kg)

Temper grade and minimum thickness of the refrigerant pipe

Outer diameter (mm)	Minimum thickness (mm)	Temper grade
Ø 6.35	0.70	Annealed
Ø 9.52	0.70	
Ø 12.70	0.80	
Ø 15.88	1.00	
Ø 19.05	0.90	
Ø 22.22	0.90	
Ø 25.40	1.00	Drawn
Ø 28.58	1.10	
Ø 31.75	1.10	
Ø 34.92	1.21	
Ø 38.10	1.35	
Ø 41.28	1.43	
Ø 44.45	1.60	
Ø 50.80	2.00	
Ø 53.98	2.10	



- For pipes larger than Ø 19.05, 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.

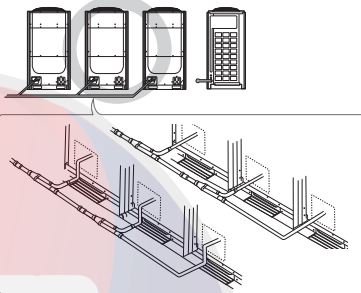
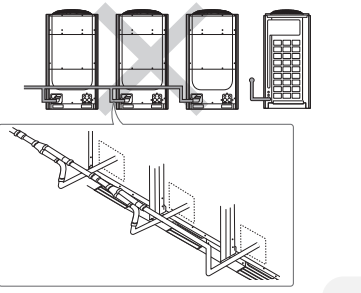
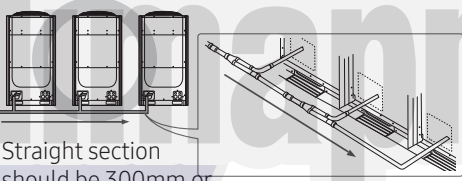
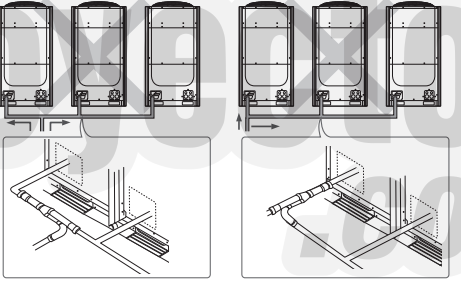
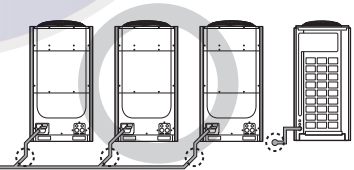
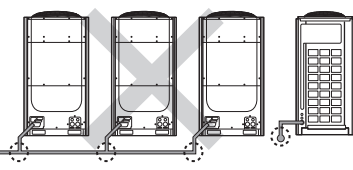
* In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.

10. Installation

Additional refrigerant

Pipe installation between the outdoor units

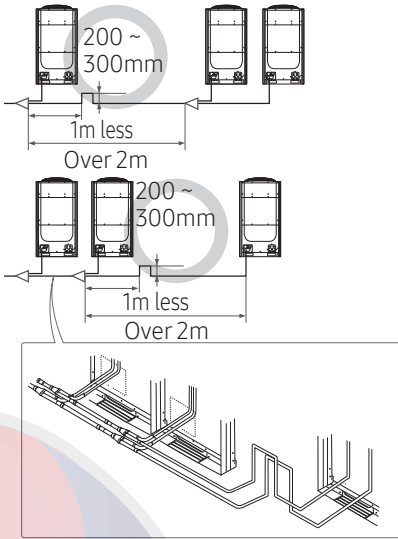
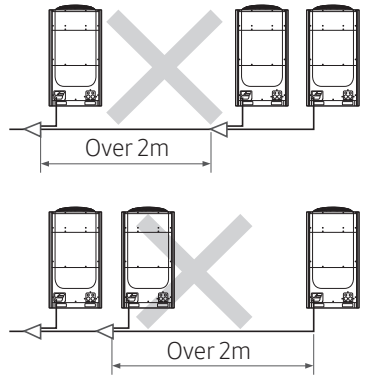
- ▶ You will need branch joints, which is an optional accessory, for connecting in between outdoor units in order to combine outdoor units in module.
- ※ For optimal distribution of the refrigerant, you must use Y-joint as branch joint for connecting outdoor units. (Do not use T-joint)
- ▶ When you install 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, III and IV.

Caution	Correct installation	Incorrect installation
<p>Refrigerant pipes should be connected at the same or lower level than the ones connected to the outdoor unit.</p>		
<p>Refrigerant pipes must be connected by the side of the product.</p>	 <p>Straight section should be 300mm or more</p>	
<p>Branch joint between outdoor units must be installed horizontally.</p>		

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10. Installation

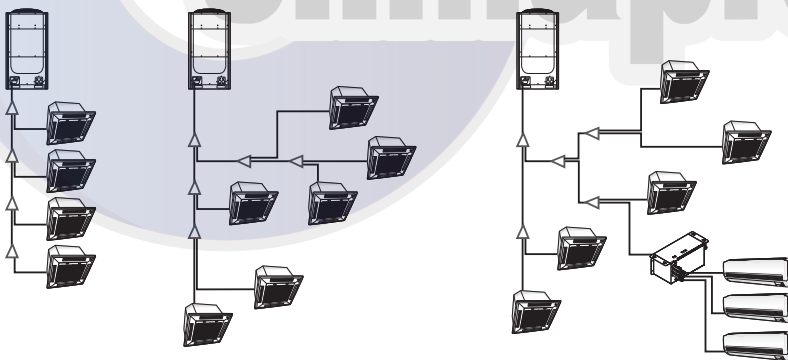
Refrigerant pipe installation

Caution	Correct installation	Incorrect installation
<p>Install a vertical trap in following cases as shown in the figure :</p> <p>Case1. Pipe length between outdoor unit branches exceeds 2m.</p> <p>Case2. Pipe length between outdoor unit and its branch exceeds 2m.</p>		

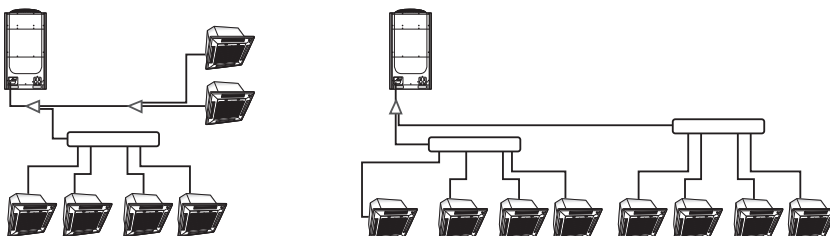
Examples of refrigerant pipe installation

C/O

1. Using Y-joint



2. Using distribution header



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10. Installation

Refrigerant pipe installation

Allowable length of the refrigerant pipe and the installation examples

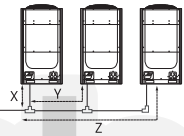
C/O

Classification	Single Installation	Module installation
Installing only with Y-joint	<p>Outdoor unit</p> <p>Branch joint</p> <p>Indoor unit</p>	<p>Outdoor unit</p> <p>Branch joint</p> <p>Indoor unit</p>
Installing with Y-joint and distribution header	<p>Outdoor unit</p> <p>Branch joint</p> <p>Distribution header</p> <p>Indoor unit</p>	<p>Outdoor unit</p> <p>Distribution header</p> <p>Branch joint</p> <p>Indoor unit</p>
Installing only with distribution header	<p>Outdoor unit</p> <p>Distribution header</p> <p>Indoor unit</p>	<p>Outdoor unit</p> <p>Distribution header</p> <p>Indoor unit</p>

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10. Installation

Refrigerant pipe installation

Classification				Example		Remarks
Maximum allowable length of pipe	Outdoor unit ~ Indoor unit	Actual length (Equivalent length)	200m and below (220m and below)	Installing only with Y-joint	$a+b+c+d+e+f+g+p \leq 200\text{m}(220\text{m})$	Equivalent length Y-joint: 0.5 m, Distribution header: 1 m
				Installing with Y-joint and distribution header	$a+b+h \leq 200\text{m} (220\text{m}),$ $a+i+k \leq 200\text{m} (220\text{m})$	
				Installing only with distribution header	$a+i \leq 200\text{m} (220\text{m})$	
	Total length of pipe (m)	1,000 m 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	$a+b+c+d+e+f+g+h+i+j+k \leq 1000\text{m}$	-	
			Installing only with distribution header	$a+b+c+d+e+f+g+h+i \leq 1000\text{m}$	-	
Outdoor unit ~ Outdoor unit (Module installation)	Pipe length	10 m or less	$x \leq 10\text{ m}, y \leq 10\text{ m}, z \leq 10\text{ m}$			
	Equivalent length	13 m or less	$x \leq 13\text{ m}, y \leq 13\text{ m}, z \leq 13\text{ m}$			
Maximum allowable height difference of pipe	Outdoor unit ~ Indoor unit	110/110m <small>Note 2)</small>		$H1 \leq 110/110\text{m}$		
	Indoor unit ~ Indoor unit	50m or less		$H2 \leq 50\text{m}$		
Maximum allowable length after branch joint	First branch joint ~ Farthest Indoor unit	Pipe length	45 m or less	Installing only with Y-joint	$b+c+d+e+f+g+p \leq 45\text{ m}$	-
				Installing with Y-joint and distribution header	$i+k \leq 45\text{ m}$	
				Installing only with distribution header	$i \leq 45\text{ m}$	
		45 m ~ 90 m <small>Note 1)</small>	Required conditions must be satisfied		-	

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10. Installation

Refrigerant pipe installation

Electrical wiring work

EEV kit		Model name		Remarks	
EEV kit ~ Indoor unit	Actual pipe length	2 m	MEV-E24SA	1 indoor	Apply to products without EEV (Wall mount & ceiling)
			MEV-E32SA		
	20 m or less	2 indoor	MXD-E24K132A	3 indoor	
			MXD-E24K200A		
			MXD-E32K200A		
		3 indoor	MXD-E24K232A		
			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	$45\text{m} \leq b+c+d+e+f+g+p \leq 90\text{m}$: 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, $a+(b+c+d+e+f+g) \times 2 + h+i+j+k+l+m+n+p \leq 1000\text{ m}$	
	If the size of pipe (main pipe), between the first branch joint and the outdoor unit, is increased by 1 grade, $(a+b+c+d+e+f+g) \times 2 + h+i+j+k+l+m+n+p \leq 1000\text{ m}$	
Each Y-joint ~ Each indoor unit	$h, i, j, \dots, p \leq 45\text{ m}$	
Difference between the distance of the outdoor unit to the farthest indoor unit and nearest indoor unit $\leq 45\text{m}$, $(a+b+c+d+e+g+p)-(a+h) \leq 45\text{m}$		

Note 2) When indoor unit is located at higher level than outdoor unit, allowable height difference is 110m, (If the height difference is over 40m, contact your local dealer for more information.)
 but when the indoor unit is located at lower level than outdoor unit, allowable height difference is 110m
 (If the height difference is over 50m, need to decide whether to install PDM kit or not.)
 Model name of the PDM kit : MXD-A38K2A, MXD-A12K2A, MXD-A58K2A

* In case you want more information about the controllers and accessories, please refer to the Controller and Accessory TDB on pvi.Samsung.com site or Global Partner Portal site.



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