

SAMSUNG

VRF

Technical Data Book

**DVM S Desert for ME
(R410A, 50Hz, HP)**



Model : Standard (T3)

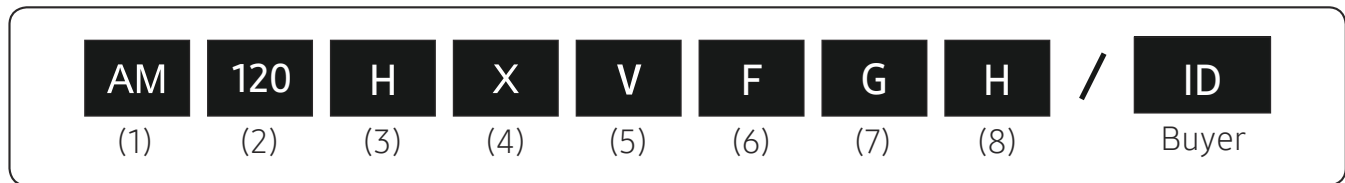
History

Version	Modification	Date	Remark
Ver. 1.0	Release DVM S Shooter (R410A, 50Hz, HP) for ME TDB	'14.04.	
Ver. 1.2	Modify the Specification : Input current, Air flow rate, Weight	'16.09.29.	
Ver. 1.3	Add 8, 12HP ODUs with module combination.	'17.01.20.	
Ver. 1.31	Modify the Accessory Compatibility table for MCU kit(P75)	'17.09.13.	

Nomenclature

Outdoor Unit

Model Name



(1) Classification

AM	DVM
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(2) Capacity

x 1/10 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

C	STANDARD+TROPICAL+MODULE
F *	STANDARD+TROPICAL+NON MODULE
J	HIGH+TROPICAL+MODULE
M	HIGH+TROPICAL+NON MODULE

* F : Shooter (Standard) models have been updated as a module type since 2017.

(7) Rating Voltage

E	1Ø, 220~240V, 50Hz
G	3Ø, 380~415V, 50Hz
N	3Ø, 380~415V, 50/60Hz

(8) Mode

H	Heat Pump
R	Heat Recovery

Features & Benefits

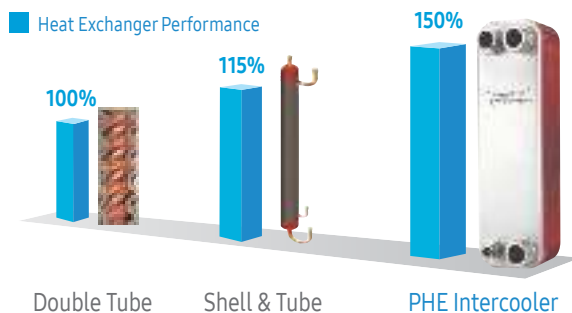


Samsung's VRF system air conditioners offer instant temperature control, user-friendly installation and advanced functionality, along with smart power usage. Our flagship VRF-based Samsung DVM S is a highly innovative system that adopts the new third-generation Samsung Scroll Compressor (SSC) technology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

Optimized the atmosphere and control costs with high energy efficiency

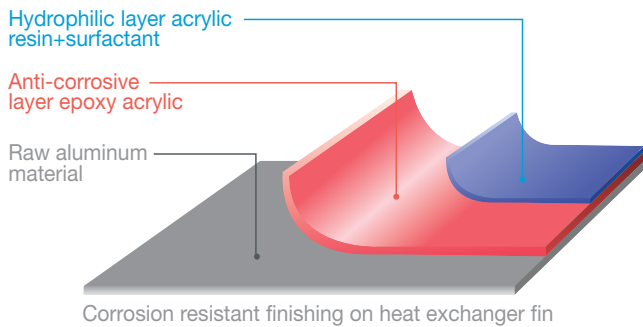
Samsung DVM S Desert features several smart technologies that combined deliver world-class energy efficiency for today's eco and budget-conscious businesses. With these technologies, DVM S Desert boasts a superior 13 percent higher Energy Efficiency Ratio (EER).



Reduce maintenance and energy costs with intercoolers

DVM S Desert features a PHE type intercooler, which improves cooling and heating efficiency by 30 percent compared to Shell & Tube and Double Tube type intercoolers. The higher heat exchange rate means optimal distribution, lowering maintenance and energy costs.

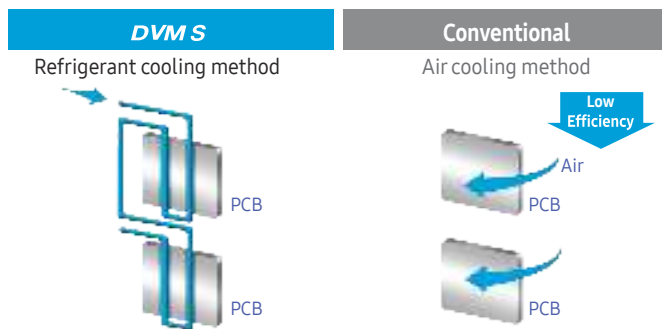
Features & Benefits



Protect your investment with corrosion and frost resistance

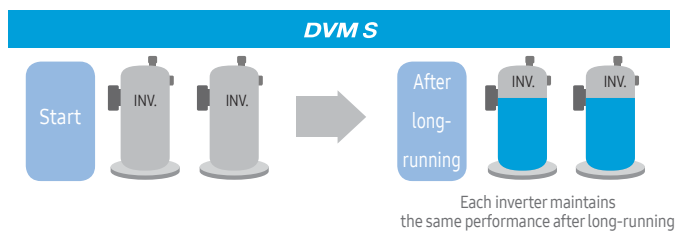
DVM S Desert includes a hydrophilic coating that facilitates efficient heat exchange and delays the onset of frost formation to provide consistent heating performance. An anti-corrosive coating also helps units to resist corrosion from the elements, with:

- Epoxy acrylic coating
- Acrylic and surfactant coating



Refrigerant Cooling System

Refrigerant cooling system is not affected by the ambient temperature. Using refrigerant cooling system, DVM S Desert ensures better stability than conventional air cooling system.



Extend compressor longevity with balanced operation

With conventional systems, one compressor operates longer than the other, which results in one compressor wearing down faster than the other. However, the DVM S Desert DDI system offers balanced compressor operation for improved durability and longevity and lower replacement costs.



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

Outdoor Units

Standard























































































Capa.	System Model		Capacity of Single Unit (HP)				
	Code	No. of Modules	8HP	10HP	12HP	14HP	16HP
8HP	AM080HXVFGH/ID	1	1				
10HP	AM100HXVFGH/ID	1		1			
12HP	AM120HXVFGH/ID	1			1		
14HP	AM140HXVFGH/ID	1				1	
16HP	AM160HXVFGH/ID	1					1
18HP	AM180HXVFGH/ID	2	1	1			
20HP	AM200HXVFGH/ID	2		2			
22HP	AM220HXVFGH/ID	2		1	1		
24HP	AM240HXVFGH/ID	2			2		
26HP	AM260HXVFGH/ID	2			1	1	
28HP	AM280HXVFGH/ID	2			1		1
30HP	AM300HXVFGH/ID	2				1	1
32HP	AM320HXVFGH/ID	2					2
34HP	AM340HXVFGH/ID	3		1	2		
36HP	AM360HXVFGH/ID	3			3		
38HP	AM380HXVFGH/ID	3			2	1	
40HP	AM400HXVFGH/ID	3			2		1
42HP	AM420HXVFGH/ID	3		1			2
44HP	AM440HXVFGH/ID	3			1		2
46HP	AM460HXVFGH/ID	3				1	2
48HP	AM480HXVFGH/ID	3					3

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.













1. Combination Table

Indoor Units

Model		Capacity (kW)															
		1.5	1.7	2.2	2.8	3.2	3.6	4.5	5.6	6.0	7.1	8.2	9.0	11.2	12.8	14.0	16.0
1Way CST	JSF-1																
	JSF-2																
2Way CST																	
4Way CST																	
360 CST																	
Floor Standing Unit																	
4Way CST S (600X600)																	
Duct S (MSP)																	
Slim Duct																	
MSP Duct																	
Ceiling																	
Console																	
Boracay																	
Boracay (with EEV)																	
AR5000 (with EEV)																	

1. Combination Table

Indoor Units

Model	Capacity (kW)															
	6.0	7.1	8.2	9.0	11.2	12.8	14.0	16.0	18.0	22.0/ 22.4	25.0	28.0	32.0	50.0	500 CMH	1000 CMH
HSP Duct																
OAP Duct																
PAC																
ERV Plus																

NOTE

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- Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity.
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 - ※ 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.

1. Combination Table

External Appearance

Standard

Capa [HP]	Model Name	Model	Capa [HP]	Model Name	Model
8 10	AM080HXVFGH/ID AM100HXVFGH/ID		12 14 16	AM120HXVFGH/ID AM140HXVFGH/ID AM160HXVFGH/ID	
18 20	AM180HXVFGH/ID AM200HXVFGH/ID		22	AM220HXVFGH/ID	
24 26 28 30 32	AM240HXVFGH/ID AM260HXVFGH/ID AM280HXVFGH/ID AM300HXVFGH/ID AM320HXVFGH/ID		34 42	AM340HXVFGH/ID AM420HXVFGH/ID	
36 38 40 44 46 48	AM360HXVFGH/ID AM380HXVFGH/ID AM400HXVFGH/ID AM440HXVFGH/ID AM460HXVFGH/ID AM480HXVFGH/ID				

2. Specification

Standard

Type			DVMS	DVMS	DVMS		
Model Name			AM080HXVFGH/ID	AM100HXVFGH/ID	AM120HXVFGH/ID		
	Outdoor unit module 1		-	-	-		
	Outdoor unit module 2		-	-	-		
	Outdoor unit module 3		-	-	-		
	Outdoor unit module 4		-	-	-		
Power Supply	Ø, #, V, Hz		3, 4, 380-415, 50	3, 4, 380-415, 50	3, 4, 380-415, 50		
Mode			- HEAT PUMP	HEAT PUMP	HEAT PUMP		
Performance	HP		HP	8	10	12	
	TON		TON	6.37	7.96	9.55	
	Capacity	Cooling		kW	22.4	28.0	33.6
				Btu/h	76,400	95,500	114,600
				US RT	6.37	7.96	9.55
		Cooling (46°C)		kW	19.0	25.0	28.5
				Btu/h	64,800	85,300	97,200
				US RT	5.40	7.11	8.10
		Heating		kW	25.2	31.5	37.8
				Btu/h	86,000	107,500	129,000
			US RT	7.17	8.96	10.75	
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	
Total capacity of the connected Indoor Units		Max.	kW	29.1	36.4	43.7	
Power	Power Input	Cooling	kW	5.21	7.23	8.40	
		Cooling (46°C)	kW	6.23	9.01	9.50	
		Heating	kW	5.10	7.61	8.13	
	Current Input	Cooling	A	8.40	11.60	13.50	
		Cooling (46°C)	A	10.00	14.45	15.20	
		Heating	A	8.20	12.20	13.00	
	Current	Minimum Ssc	MVA	4.0	5.1	5.6	
		MCA	A	22.0	24.0	26.6	
		MFA	A	25	32	32	
Efficiency	EER	Cooling	W/W	4.30	3.87	4.00	
		Cooling (46°C)	W/W	3.05	2.77	3.00	
	COP	Heating	W/W	4.94	4.14	4.65	
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 (Inverter Scroll)	Output		kW x n	5.18 x 1	6.39 x 1	6.39 x 1	
	Model Name			DS-GB052FAV* x 1	DS-GB066FAV* x 1	DS-GB066FAV* x 1	
	Oil	Type	-	PVE	PVE	PVE	
		Initial charge	cc x n	1,100 x 1	1,100 x 1	1,100 x 1	
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction			Top	Top	Top	
	Quantity		EA	1	1	2	
	Air Flow Rate		m ³ /min (CFM)	170 (6,004)	225 (7,946)	255 (9,006)	
	External Static Pressure	Max.	mmAq	8	8	8	
			Pa (in Wg)	78.45 (0.31)	78.45 (0.31)	78.45 (0.31)	
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output		W x n	830 x 1	830 x 1	620 x 2	
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)		9.52 (3/8)	9.52 (3/8)	12.70 (1/2)	
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)		19.05 (3/4)	22.22 (7/8)	28.58 (1-1/8)	
	High pressure Gas Pipe(HR Only)		Type	-	-	-	
			Φ, mm (inch)	-	-	-	
	Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	m (ft)	200[220] (656[722])	200[220] (656[722])	200[220] (656[722])	
Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)		
Total piping length (System)		Max.	m (ft)	1,000 (3,281)	1,000 (3,281)	1,000 (3,281)	

2. Specification

Standard

Type			DVM S	DVM S	DVM S
Model Name			AM080HXVFGH/ID	AM100HXVFGH/ID	AM120HXVFGH/ID
	Outdoor unit module 1		-	-	-
	Outdoor unit module 2		-	-	-
	Outdoor unit module 3		-	-	-
Piping Connections	Level difference (ODU in highest position)	Max.	m (ft)	110 (361)	110 (361)
	Level difference (IDU in highest position)	Max.	m (ft)	110 (361)	110 (361)
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75
	Remark	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 (lbs)	5.5 (12.1)	5.2 (11.5)
Sound	Sound Pressure	Cooling	dB(A)	57	58
		Heating	dB(A)	59	60
	Sound Power	-	dB(A)	77	79
External Dimension	Net Weight	-	kg (lbs)	191.0 (421.1)	193.0 (425.5)
	Shipping Weight	-	kg (lbs)	198.0 (436.5)	200.0 (440.9)
	Net Dimensions (WxHxD)	-	mm	880 x 1,695 x 765	880 x 1,695 x 765
		-	inch	34-11/16 x 66-3/4 x 30-1/8	34-11/16 x 66-3/4 x 30-1/8
	Shipping Dimensions (WxHxD)	-	mm	948 x 1,887 x 832	948 x 1,887 x 832
-		inch	37-3/8 x 74-5/16 x 32-13/16	37-3/8 x 74-5/16 x 32-13/16	
Operating Temp. Range	Cooling	-	°C (°F)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)
	Heating	-	°C (°F)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)

NOTE

- Specification may be subject to change without prior notice.
 - 1) Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m);
 - Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB
 - Cooling(46°C) : Indoor temperature 29°C DB, 19°C WB / Outdoor temperature 46°C DB, 24°C WB
 - Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB
 - 2) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
 - 3) Sound pressure level is obtained in an anechoic room.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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
 - 4) 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
 - 5) Sound values of multi combination are theoretical values based on sound results of individual installed units.
 - 6) These products contain R410A which is fluorinated greenhouse gas.
 - 7) 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

Standard

Type			DVMS	DVMS	DVMS		
Model Name			AM140HXVFGH/ID	AM160HXVFGH/ID	AM180HXVFGH/ID		
	Outdoor unit module 1		-	-	AM080HXVFGH/ID		
	Outdoor unit module 2		-	-	AM100HXVFGH/ID		
	Outdoor unit module 3		-	-	-		
	Outdoor unit module 4		-	-	-		
Power Supply	Ø, #, V, Hz		3, 4, 380-415, 50	3, 4, 380-415, 50	3, 4, 380-415, 50		
Mode			HEAT PUMP	HEAT PUMP	HEAT PUMP		
Performance	HP		HP	14	16		
	TON		TON	11.37	12.8		
	Capacity	Cooling	kW	40.0	45.0	50.4	
			Btu/h	136,500	153,500	172,000	
			US RT	11.37	12.80	14.33	
		Cooling (46°C)	kW	35.3	40.3	44.0	
			Btu/h	120,400	137,500	150,100	
			US RT	10.04	11.46	12.51	
	Heating	kW	45.0	50.4	56.7		
		Btu/h	153,500	172,000	193,500		
US RT		12.80	14.33	16.12			
Maximum number of connectable indoor units		EA	26	29	32		
Total capacity of the connected Indoor Units	Min.	kW	20.0	22.5	25.2		
Total capacity of the connected Indoor Units	Max.	kW	52.0	58.5	65.5		
Power	Power Input	Cooling	kW	10.47	11.81	12.44	
		Cooling (46°C)	kW	13.47	16.09	15.24	
		Heating	kW	11.18	12.76	12.71	
	Current Input	Cooling	A	16.79	20.75	20.00	
		Cooling (46°C)	A	21.60	25.80	24.45	
		Heating	A	17.93	20.46	20.40	
	Current	Minimum Ssc	MVA	7.2	8.7	9.1	
		MCA	A	34.0	41.0	46.0	
		MFA	A	40	50	63	
Efficiency	EER	Cooling	W/W	3.82	3.81	4.05	
		Cooling (46°C)	W/W	2.62	2.50	2.89	
	COP	Heating	W/W	4.03	3.95	4.46	
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 (Inverter Scroll)	Output		kW x n	5.18 x 2	5.18 x 2	(5.18 x 1) x 1 + (6.39 x 1) x 1	
	Model Name			-	DS-GB052FAV* x 2	DS-GB052FAV* x 2	(DS-GB052FAV* x 1) x 1 + (DS-GB066FAV* x 1) x 1
	Oil	Type	-	PVE	PVE	PVE	
Initial charge		cc x n	1,100 x 2	1,100 x 2	(1,100 x 1) x 2		
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction		-	Top	Top	Top	
	Quantity		EA	2	2	2	
	Air Flow Rate		m ³ /min (CFM)	285 (10,065)	285 (10,065)	170 x 1 + 225 x 1 (6,004 x 1 + 7946 x 1)	
	External Static Pressure	Max.	mmAq	8	8	8	
			Pa (in Wg)	78.45 (0.31)	78.45 (0.31)	78.45 (0.31)	
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	
Piping Connections	Output		W x n	620 x 2	620 x 2	(830 x 1) x 2	
	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)		12.70 (1/2)	12.70 (1/2)	15.88 (5/8)	
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)		28.58 (1-1/8)	28.58 (1-1/8)	28.58 (1-1/8)	
	High pressure Gas Pipe(HR Only)	Type		-	-	-	
		Φ, mm (inch)		-	-	-	
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)	Max. [Equiv.]	m (ft)	200[220] (656[722])	200[220] (656[722])	200[220] (656[722])	
Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)		
Total piping length (System)	Max.	m (ft)	1,000 (3,281)	1,000 (3,281)	1,000 (3,281)		

2. Specification

Standard

Type			DVM S	DVM S	DVM S	
Model Name			AM140HXVFGH/ID	AM160HXVFGH/ID	AM180HXVFGH/ID	
	Outdoor unit module 1		-	-	AM080HXVFGH/ID	
	Outdoor unit module 2		-	-	AM100HXVFGH/ID	
	Outdoor unit module 3		-	-	-	
Piping Connections	Level difference (ODU in highest position)	Max.	m (ft)	110 (361)	110 (361)	
	Level difference (IDU in highest position)	Max.	m (ft)	110 (361)	110 (361)	
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	
	Remark	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 (lbs)	7.7 (17.0)	8.4 (18.5)	
Sound	Sound Pressure	Cooling	dB(A)	62	62	
		Heating	dB(A)	64	64	
	Sound Power	-	dB(A)	83	84	
External Dimension	Net Weight		kg (lbs)	276.0 (608.5)	296.0 (652.6)	
	Shipping Weight		kg (lbs)	289.0 (637.1)	306.0 (674.6)	
	Net Dimensions (WxHxD)			mm	1,295 x 1,695 x 765	1,295 x 1,695 x 765
				inch	51 x 66-3/4 x 30-1/8	51 x 66-3/4 x 30-1/8
	Shipping Dimensions (WxHxD)			mm	1,363 x 1,887 x 832	1,363 x 1,887 x 832
				inch	53-11/16 x 74-5/16 x 32-13/16	53-11/16 x 74-5/16 x 32-13/16
Operating Temp. Range	Cooling		°C (°F)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)	
	Heating		°C (°F)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)	

NOTE

- Specification may be subject to change without prior notice.
- 1) Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m);
 - Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB
 - Cooling(46°C) : Indoor temperature 29°C DB, 19°C WB / Outdoor temperature 46°C DB, 24°C WB
 - Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB
- 2) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
- 3) Sound pressure level is obtained in an anechoic room.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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
- 4) 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
- 5) Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 6) These products contain R410A which is fluorinated greenhouse gas.
- 7) 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

Standard

Type			DVMS	DVMS	DVMS		
Model Name			AM200HXVFGH/ID	AM220HXVFGH/ID	AM240HXVFGH/ID		
	Outdoor unit module 1		AM100HXVFGH/ID	AM100HXVFGH/ID	AM120HXVFGH/ID		
	Outdoor unit module 2		AM100HXVFGH/ID	AM120HXVFGH/ID	AM120HXVFGH/ID		
	Outdoor unit module 3		-	-	-		
Outdoor unit module 4		-	-	-			
Power Supply			Ø, #, V, Hz	3, 4, 380-415, 50	3, 4, 380-415, 50	3, 4, 380-415, 50	
Mode			-	HEAT PUMP	HEAT PUMP	HEAT PUMP	
Performance	HP		HP	20	22	24	
	TON		TON	15.92	17.52	19.11	
	Capacity	Cooling	kW	56.0	61.6	67.2	
			Btu/h	191,100	210,200	229,300	
			US RT	15.92	17.52	19.11	
		Cooling (46°C)	kW	50.0	53.5	57.0	
			Btu/h	170,600	182,500	194,500	
			US RT	14.22	15.21	16.21	
	Heating	kW	63.0	69.3	75.6		
		Btu/h	215,000	236,500	258,000		
US RT		17.91	19.71	21.50			
Maximum number of connectable indoor units			EA	36	40	43	
Total capacity of the connected Indoor Units		Min.	kW	28.0	30.8	33.6	
Total capacity of the connected Indoor Units		Max.	kW	72.8	80.1	87.4	
Power	Power Input	Cooling	kW	14.46	15.63	16.80	
		Cooling (46°C)	kW	18.02	18.51	19.00	
		Heating	kW	15.22	15.74	16.26	
	Current Input	Cooling	A	23.20	25.10	27.00	
		Cooling (46°C)	A	28.90	29.65	30.40	
		Heating	A	24.40	25.20	26.00	
	Current	Minimum Ssc	MVA	10.2	10.7	11.2	
		MCA	A	48.0	50.6	53.2	
		MFA	A	63	63	63	
Efficiency	EER	Cooling	W/W	3.87	3.94	4.00	
		Cooling (46°C)	W/W	2.77	2.89	3.00	
	COP	Heating	W/W	4.14	4.40	4.65	
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 (Inverter Scroll)	Output		kW x n	(6.39 x 1) x 2	(6.39 x 1) x 2	(6.39 x 1) x 2	
	Model Name		-	(DS-GB066FAV* x 1) x 2	(DS-GB066FAV* x 1) x 2	(DS-GB066FAV* x 1) x 2	
	Oil	Type	-	PVE	PVE	PVE	
		Initial charge	cc x n	(1,100 x 1) x 2	(1,100 x 1) x 2	(1,100 x 1) x 2	
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction			-	Top	Top	Top
	Quantity		EA	2	3	4	
	Air Flow Rate		m ³ /min (CFM)	225 x 2 (7946 x 2)	225 x 1 + 255 x 1 (7946 x 1 + 9,006 x 1)	255 x 2 (9,006 x 2)	
	External Static Pressure	Max.	mmAq	8	8	8	
			Pa (in Wg)	78.45 (0.31)	78.45 (0.31)	78.45 (0.31)	
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output		W x n	(830 x 1) x 2	(830 x 1) x 1 + (620 x 2) x 1	(620 x 2) x 2	
Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection	
			Φ, mm (inch)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection	
			Φ, mm (inch)	28.58 (1-1/8)	28.58 (1-1/8)	34.92 (1-3/8)	
	High pressure Gas Pipe(HR Only)		Type	-	-	-	
			Φ, mm (inch)	-	-	-	
	Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	m (ft)	200[220] (656[722])	200[220] (656[722])	200[220] (656[722])	
Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)		
Total piping length (System)	Max.	m (ft)	1,000 (3,281)	1,000 (3,281)	1,000 (3,281)		

2. Specification

Standard

Type				DVM S	DVM S	DVM S
Model Name		Outdoor unit module 1		AM200HXVFGH/ID	AM220HXVFGH/ID	AM240HXVFGH/ID
		Outdoor unit module 2		AM100HXVFGH/ID	AM100HXVFGH/ID	AM120HXVFGH/ID
		Outdoor unit module 3		-	-	-
		Outdoor unit module 4		-	-	-
Piping Connections	Level difference (ODU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75
	Remark	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 (lbs)	5.2 x 2 (11.5 x 2)	5.2 x 1 + 7.7 x 1 (11.5 x 1 + 17.0 x 1)	7.7 x 2 (17.0 x 2)
Sound	Sound Pressure	Cooling	dB(A)	61	63	64
		Heating	dB(A)	63	65	66
	Sound Power	-	dB(A)	82	83	84
External Dimension	Net Weight		kg (lbs)	193.0 x 2 (425.5 x 2)	193.0 x 1 + 236.0 x 1 (425.5 x 1 + 520.3 x 1)	236.0 x 2 (520.3 x 2)
	Shipping Weight		kg (lbs)	200.0 x 2 (440.9 x 2)	200.0 x 1 + 249.0 x 1 (440.9 x 1 + 549.0 x 1)	249.0 x 2 (549.0 x 2)
	Net Dimensions (WxHxD)		mm	(880 x 1,695 x 765) x 2	(880 x 1,695 x 765) x 1 + (1,295 x 1,695 x 765) x 1	(1,295 x 1,695 x 765) x 2
			inch	(34-11/16 x 66-3/4 x 30-1/8) x 2	(34-11/16 x 66-3/4 x 30-1/8) x 1 + (51 x 66-3/4 x 30-1/8) x 1	(51 x 66-3/4 x 30-1/8) x 2
	Shipping Dimensions (WxHxD)		mm	(948 x 1,887 x 832) x 2	(948 x 1,887 x 832) x 1 + (1,363 x 1,887 x 832) x 1	(1,363 x 1,887 x 832) x 2
			inch	(37-3/8 x 74-5/16 x 32-13/16) x 2	(37-3/8 x 74-5/16 x 32-13/16) x 1 + (53-11/16 x 74-5/16 x 32-13/16) x 1	(53-11/16 x 74-5/16 x 32-13/16) x 2
Operating Temp. Range	Cooling	-	°C (°F)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)
	Heating	-	°C (°F)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)

NOTE

- Specification may be subject to change without prior notice.
- 1) Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m);
 - Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB
 - Cooling(46°C) : Indoor temperature 29°C DB, 19°C WB / Outdoor temperature 46°C DB, 24°C WB
 - Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB
- 2) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
- 3) Sound pressure level is obtained in an anechoic room.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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
- 4) 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
- 5) Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 6) These products contain R410A which is fluorinated greenhouse gas.
- 7) 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

Standard

Type			DVMS	DVMS	DVMS	
Model Name			AM260HXVFGH/ID	AM280HXVFGH/ID	AM300HXVFGH/ID	
	Outdoor unit module 1		AM120HXVFGH/ID	AM120HXVFGH/ID	AM140HXVFGH/ID	
	Outdoor unit module 2		AM140HXVFGH/ID	AM160HXVFGH/ID	AM160HXVFGH/ID	
	Outdoor unit module 3		-	-	-	
Outdoor unit module 4		-	-	-		
Power Supply			Ø, #, V, Hz	3, 4, 380-415, 50	3, 4, 380-415, 50	3, 4, 380-415, 50
Mode			-	HEAT PUMP	HEAT PUMP	HEAT PUMP
Performance	HP		HP	26	28	30
	TON		TON	20.93	22.35	24.17
	Capacity	Cooling	kW	73.6	78.6	85.0
			Btu/h	251,100	268,200	290,000
			US RT	20.93	22.35	24.17
		Cooling (46°C)	kW	63.8	68.8	75.6
			Btu/h	217,700	234,800	258,000
			US RT	18.14	19.56	21.50
	Heating	kW	82.8	88.2	95.4	
		Btu/h	282,500	301,000	325,500	
US RT	23.54	25.08	27.13			
Maximum number of connectable indoor units			EA	47	51	54
Total capacity of the connected Indoor Units		Min.	kW	36.8	39.3	42.5
Total capacity of the connected Indoor Units		Max.	kW	95.7	102.2	110.5
Power	Power Input	Cooling	kW	18.87	20.21	22.28
		Cooling (46°C)	kW	22.97	25.59	29.56
		Heating	kW	19.31	20.89	23.94
	Current Input	Cooling	A	30.29	34.25	37.54
		Cooling (46°C)	A	36.80	41.00	47.40
		Heating	A	30.93	33.46	38.39
	Current	Minimum Ssc	MVA	12.8	14.3	15.9
		MCA	A	60.6	67.6	75.0
		MFA	A	75	75	90
Efficiency	EER	Cooling	W/W	3.90	3.89	3.82
		Cooling (46°C)	W/W	2.78	2.69	2.56
	COP	Heating	W/W	4.29	4.22	3.98
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 (Inverter Scroll)	Output		kW x n	(6.39 x 1) x 1 + (5.18 x 2) x 1	(6.39 x 1) x 1 + (5.18 x 2) x 1	(5.18 x 2) x 2
	Model Name		-	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 1	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 1	(DS-GB052FAV* x 2) x 2
	Oil	Type	-	PVE	PVE	PVE
	Initial charge	cc x n	(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 2) x 2	
Fan	Type		-	Propeller	Propeller	Propeller
	Discharge direction		-	Top	Top	Top
	Quantity		EA	4	4	4
	Air Flow Rate		m ³ /min (CFM)	255 x 1 + 285 x 1 (9,006 x 1 + 10,065 x 1)	255 x 1 + 285 x 1 (9,006 x 1 + 10,065 x 1)	285 x 2 (10,065 x 2)
	External Static Pressure	Max.	mmAq	8	8	8
			Pa (in Wg)	78.45 (0.31)	78.45 (0.31)	78.45 (0.31)
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
Piping Connections	Output		W x n	(620 x 2) x 2	(620 x 2) x 2	(620 x 2) x 2
	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection
		Φ, mm (inch)		19.05 (3/4)	19.05 (3/4)	19.05 (3/4)
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection
		Φ, mm (inch)		34.92 (1-3/8)	34.92 (1-3/8)	34.92 (1-3/8)
	High pressure Gas Pipe(HR Only)	Type		-	-	-
		Φ, mm (inch)		-	-	-
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	m (ft)	200[220] (656[722])	200[220] (656[722])	200[220] (656[722])
Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)	
Total piping length (System)	Max.	m (ft)	1,000 (3,281)	1,000 (3,281)	1,000 (3,281)	

2. Specification

Standard

Type			DVM S	DVM S	DVM S	
Model Name			AM260HXVFGH/ID	AM280HXVFGH/ID	AM300HXVFGH/ID	
	Outdoor unit module 1		AM120HXVFGH/ID	AM120HXVFGH/ID	AM140HXVFGH/ID	
	Outdoor unit module 2		AM140HXVFGH/ID	AM160HXVFGH/ID	AM160HXVFGH/ID	
	Outdoor unit module 3		-	-	-	
Outdoor unit module 4			-	-	-	
Piping Connections	Level difference (ODU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75
	Remark	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 (lbs)	7.7 x 2 (17.0 x 2)	7.7 x 1 + 8.4 x 1 (17.0 x 1 + 18.5 x 1)	7.7 x 1 + 8.4 x 1 (17.0 x 1 + 18.5 x 1)
Sound	Sound Pressure	Cooling	dB(A)	65	65	65
		Heating	dB(A)	67	67	67
	Sound Power		dB(A)	85	86	87
External Dimension	Net Weight		kg (lbs)	236.0 x 1 + 276.0 x 1 (520.3 x 1 + 608.5 x 1)	236.0 x 1 + 296.0 x 1 (520.3 x 1 + 652.6 x 1)	276.0 x 1 + 296.0 x 1 (608.5 x 1 + 652.6 x 1)
	Shipping Weight		kg (lbs)	249.0 x 1 + 289.0 x 1 (549.0 x 1 + 637.1 x 1)	249.0 x 1 + 306.0 x 1 (549.0 x 1 + 674.6 x 1)	289.0 x 1 + 306.0 x 1 (637.1 x 1 + 674.6 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
			inch	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 2
inch			(53-11/16 x 74-5/16 x 32-13/16) x 2	(53-11/16 x 74-5/16 x 32-13/16) x 2	(53-11/16 x 74-5/16 x 32-13/16) x 2	
Operating Temp. Range	Cooling		°C (°F)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)
	Heating		°C (°F)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)

NOTE

- Specification may be subject to change without prior notice.
- 1) Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m);
 - Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB
 - Cooling(46°C) : Indoor temperature 29°C DB, 19°C WB / Outdoor temperature 46°C DB, 24°C WB
 - Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB
- 2) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
- 3) Sound pressure level is obtained in an anechoic room.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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
- 4) 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
- 5) Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 6) These products contain R410A which is fluorinated greenhouse gas.
- 7) 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

Standard

Type			DVMS	DVMS	DVMS		
Model Name			AM320HXVFGH/ID	AM340HXVFGH/ID	AM360HXVFGH/ID		
	Outdoor unit module 1		AM160HXVFGH/ID	AM100HXVFGH/ID	AM120HXVFGH/ID		
	Outdoor unit module 2		AM160HXVFGH/ID	AM120HXVFGH/ID	AM120HXVFGH/ID		
	Outdoor unit module 3		-	AM120HXVFGH/ID	AM120HXVFGH/ID		
	Outdoor unit module 4		-	-	-		
Power Supply	Ø, #, V, Hz		3, 4, 380-415, 50	3, 4, 380-415, 50	3, 4, 380-415, 50		
Mode			-	HEAT PUMP	HEAT PUMP		
Performance	HP		HP	32	34		
	TON		TON	25.59	27.07		
	Capacity	Cooling	kW	90.0	95.2	100.8	
			Btu/h	307100	324,800	343,900	
			US RT	25.59	27.07	28.66	
			Cooling (46°C)	kW	80.6	82.0	85.5
				Btu/h	275,000	279,800	291,700
				US RT	22.92	23.32	24.31
		Heating	kW	100.8	107.1	113.4	
			Btu/h	343,900	365,400	386,900	
US RT			28.66	30.45	32.24		
Maximum number of connectable indoor units			EA	58	61	64	
Total capacity of the connected Indoor Units	Min.	kW	45.0	47.6	50.4		
Total capacity of the connected Indoor Units	Max.	kW	117.0	123.8	131.0		
Power	Power Input	Cooling	kW	23.62	24.03	25.20	
		Cooling (46°C)	kW	32.18	28.01	28.50	
		Heating	kW	25.52	23.87	24.39	
	Current Input	Cooling	A	41.50	38.60	40.50	
		Cooling (46°C)	A	51.60	44.85	45.60	
		Heating	A	40.92	38.20	39.00	
	Current	Minimum Ssc	MVA	17.4	16.3	16.8	
		MCA	A	82.0	77.2	79.8	
		MFA	A	90	90	90	
Efficiency	EER	Cooling	W/W	3.81	3.96	4.00	
		Cooling (46°C)	W/W	2.50	2.93	3.00	
	COP	Heating	W/W	3.95	4.49	4.65	
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 (Inverter Scroll)	Output		kW x n	(5.18 x 2) x 2	(6.39 x 1) x 3	(6.39 x 1) x 3	
	Model Name		-	(DS-GB052FAV* x 2) x 2	(DS-GB066FAV* x 1) x 3	(DS-GB066FAV* x 1) x 3	
	Oil	Type	-	PVE	PVE	PVE	
		Initial charge	cc x n	(1,100 x 2) x 2	(1,100 x 1) x 3	(1,100 x 1) x 3	
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction		-	Top	Top	Top	
	Quantity		EA	4	5	6	
	Air Flow Rate		m ³ /min (CFM)	285 x 2 (10,065 x 2)	225 x 1 + 255 x 2 (7,946 x 1 + 9,006 x 2)	255 x 3 (9,006 x 3)	
	External Static Pressure	Max.	mmAq	8	8	8	
			Pa (in Wg)	78.45 (0.31)	78.45 (0.31)	78.45 (0.31)	
	Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output		W x n	(620 x 2) x 2	(830 x 1) x 1 + (620 x 2) x 2	(620 x 2) x 3	
Piping Connections	Liquid Pipe	Type		Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)		19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)		34.92 (1-3/8)	34.92 (1-3/8)	41.28 (1-5/8)	
	High pressure Gas Pipe(HR Only)	Type		-	-	-	
		Φ, mm (inch)		-	-	-	
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
	Piping length (ODU-IDU)	Max. [Equiv.]	m (ft)	200[220] (656[722])	200[220] (656[722])	200[220] (656[722])	
Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)		
Total piping length (System)	Max.	m (ft)	1,000 (3,281)	1,000 (3,281)	1,000 (3,281)		

2. Specification

Standard

Type				DVM S	DVM S	DVM S
Model Name				AM320HXVFGH/ID	AM340HXVFGH/ID	AM360HXVFGH/ID
	Outdoor unit module 1			AM160HXVFGH/ID	AM100HXVFGH/ID	AM120HXVFGH/ID
	Outdoor unit module 2			AM160HXVFGH/ID	AM120HXVFGH/ID	AM120HXVFGH/ID
	Outdoor unit module 3			-	AM120HXVFGH/ID	AM120HXVFGH/ID
	Outdoor unit module 4			-	-	-
Piping Connections	Level difference (ODU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75
	Remark	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 (lbs)	8.4 x 2 (18.5 x 2)	5.2 x 1 + 7.7 x 2 (11.5 x 1 + 17.0 x 2)	7.7 x 3 (17.0 x 3)
Sound	Sound Pressure	Cooling	dB(A)	65	65	66
		Heating	dB(A)	67	67	68
	Sound Power		dB(A)	87	85	86
External Dimension	Net Weight		kg (lbs)	296.0 x 2 (652.6 x 2)	193.0 x 1 + 236.0 x 2 (425.5 x 1 + 520.3 x 2)	236.0 x 3 (520.3 x 3)
	Shipping Weight		kg (lbs)	306.0 x 2 (674.6 x 2)	200.0 x 1 + 249.0 x 2 (440.9 x 1 + 549.0 x 2)	249.0 x 3 (549.0 x 3)
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 2	(880 x 1,695 x 765) x 1 + (1,295 x 1,695 x 765) x 2	(1,295 x 1,695 x 765) x 3
			inch	(51 x 66-3/4 x 30-1/8) x 2	(34-11/16 x 66-3/4 x 30-1/8) x 1 + (51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 2	(948 x 1,887 x 832) x 1 + (1,363 x 1,887 x 832) x 2	(1,363 x 1,887 x 832) x 3
			inch	(53-11/16 x 74-5/16 x 32-13/16) x 2	(37-3/8 x 74-5/16 x 32-13/16) x 1 + (53-11/16 x 74-5/16 x 32-13/16) x 2	(53-11/16 x 74-5/16 x 32-13/16) x 3
Operating Temp. Range	Cooling		°C (°F)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)
	Heating		°C (°F)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)

NOTE

- Specification may be subject to change without prior notice.
- 1) Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m);
 - Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB
 - Cooling(46°C) : Indoor temperature 29°C DB, 19°C WB / Outdoor temperature 46°C DB, 24°C WB
 - Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB
- 2) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
- 3) Sound pressure level is obtained in an anechoic room.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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
- 4) 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
- 5) Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 6) These products contain R410A which is fluorinated greenhouse gas.
- 7) 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

Standard

Type			DVMS	DVMS	DVMS		
Model Name			AM380HXVFGH/ID	AM400HXVFGH/ID	AM420HXVFGH/ID		
	Outdoor unit module 1		AM120HXVFGH/ID	AM120HXVFGH/ID	AM100HXVFGH/ID		
	Outdoor unit module 2		AM120HXVFGH/ID	AM120HXVFGH/ID	AM160HXVFGH/ID		
	Outdoor unit module 3		AM140HXVFGH/ID	AM160HXVFGH/ID	AM160HXVFGH/ID		
	Outdoor unit module 4		-	-	-		
Power Supply	Ø, #, V, Hz		3, 4, 380-415, 50	3, 4, 380-415, 50	3, 4, 380-415, 50		
Mode			HEAT PUMP	HEAT PUMP	HEAT PUMP		
Performance	HP		HP	38	40	42	
	TON		TON	30.48	31.9	33.55	
	Capacity	Cooling	kW	107.2	112.2	118.0	
			Btu/h	365,800	382,800	402,600	
			US RT	30.48	31.90	33.55	
			Cooling (46°C)	kW	92.3	97.3	105.6
				Btu/h	314,900	332,000	360,300
				US RT	26.25	27.67	30.03
		Heating	kW	120.6	126.0	132.3	
			Btu/h	411,500	429,900	451,400	
US RT			34.29	35.83	37.62		
Maximum number of connectable indoor units			EA	64	64		
Total capacity of the connected Indoor Units		Min.	kW	53.6	56.1	59.0	
Total capacity of the connected Indoor Units		Max.	kW	139.4	145.9	153.4	
Power	Power Input	Cooling	kW	27.27	28.61	30.85	
		Cooling (46°C)	kW	32.47	35.09	41.19	
		Heating	kW	27.44	29.02	33.13	
	Current Input	Cooling	A	43.79	47.75	53.10	
		Cooling (46°C)	A	52.00	56.20	66.05	
		Heating	A	43.93	46.46	53.12	
	Current	Minimum Ssc	MVA	18.4	19.9	22.5	
		MCA	A	87.2	94.2	106.0	
		MFA	A	100	125	125	
Efficiency	EER	Cooling	W/W	3.93	3.92	3.82	
		Cooling (46°C)	W/W	2.84	2.77	2.56	
	COP	Heating	W/W	4.40	4.34	3.99	
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 (Inverter Scroll)	Output		kW x n	(6.39 x 1) x 2 + (5.18 x 2) x 1	(6.39 x 1) x 2 + (5.18 x 2) x 1	(6.39 x 1) x 1 + (5.18 x 2) x 2	
	Model Name		-	(DS-GB066FAV* x 1) x 2 + (DS-GB052FAV* x 2) x 1	(DS-GB066FAV* x 1) x 2 + (DS-GB052FAV* x 2) x 1	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 2	
	Oil	Type	-	PVE	PVE	PVE	
		Initial charge	cc x n	(1,100 x 1) x 2 + (1,100 x 2) x 1	(1,100 x 1) x 2 + (1,100 x 2) x 1	(1,100 x 1) x 1 + (1,100 x 2) x 2	
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction		-	Top	Top	Top	
	Quantity		EA	6	6	5	
	Air Flow Rate		m ³ /min (CFM)	255 x 2 + 285 x 1 (9,006 x 2 + 10,065 x 1)	255 x 2 + 285 x 1 (9,006 x 2 + 10,065 x 1)	225 x 1 + 285 x 2 (7,946 x 1 + 10,065 x 2)	
	External Static Pressure	Max.	mmAq	8	8	8	
			Pa (in Wg)	78.45 (0.31)	78.45 (0.31)	78.45 (0.31)	
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output		W x n	(620 x 2) x 3	(620 x 2) x 3	(830 x 1) x 1 + (620 x 2) x 2	
Piping Connections	Liquid Pipe		Type	Braze connection	Braze connection	Braze connection	
			Φ, mm (inch)	19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	
	Gas Pipe		Type	Braze connection	Braze connection	Braze connection	
			Φ, mm (inch)	41.28 (1-5/8)	41.28 (1-5/8)	41.28 (1-5/8)	
	High pressure Gas Pipe(HR Only)		Type	-	-	-	
			Φ, mm (inch)	-	-	-	
	Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	m (ft)	200[220] (656[722])	200[220] (656[722])	200[220] (656[722])	
Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)		
Total piping length (System)	Max.	m (ft)	1,000 (3,281)	1,000 (3,281)	1,000 (3,281)		

2. Specification

Standard

Type				DVM S	DVM S	DVM S
Model Name				AM380HXVFGH/ID	AM400HXVFGH/ID	AM420HXVFGH/ID
		Outdoor unit module 1		AM120HXVFGH/ID	AM120HXVFGH/ID	AM100HXVFGH/ID
		Outdoor unit module 2		AM120HXVFGH/ID	AM120HXVFGH/ID	AM160HXVFGH/ID
		Outdoor unit module 3		AM140HXVFGH/ID	AM160HXVFGH/ID	AM160HXVFGH/ID
		Outdoor unit module 4		-	-	-
Piping Connections	Level difference (ODU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75
	Remark	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 (lbs)	7.7 x 3 (17.0 x 3)	7.7 x 2 + 8.4 x 1 (17.0 x 2 + 18.5 x 1)	5.2 x 1 + 8.4 x 2 (11.5 x 1 + 18.5 x 2)
Sound	Sound Pressure	Cooling	dB(A)	66	66	66
		Heating	dB(A)	68	68	68
	Sound Power		dB(A)	87	87	88
External Dimension	Net Weight		kg (lbs)	236.0 x 2 + 276.0 x 1 (520.3 x 2 + 608.5 x 1)	236.0 x 2 + 296.0 x 1 (520.3 x 2 + 652.6 x 1)	193.0 x 1 + 296.0 x 2 (425.5 x 1 + 652.6 x 2)
	Shipping Weight		kg (lbs)	249.0 x 2 + 289.0 x 1 (549.0 x 2 + 637.1 x 1)	249.0 x 2 + 306.0 x 1 (549.0 x 2 + 674.6 x 1)	200.0 x 1 + 306.0 x 2 (440.9 x 1 + 674.6 x 2)
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3	(1,295 x 1,695 x 765) x 3	(880 x 1,695 x 765) x 1 + (1,295 x 1,695 x 765) x 2
			inch	(51 x 66-3/4 x 30-1/8) x 3	(51 x 66-3/4 x 30-1/8) x 3	(34-11/16 x 66-3/4 x 30-1/8) x 1 + (51 x 66-3/4 x 30-1/8) x 2
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3	(1,363 x 1,887 x 832) x 3	(948 x 1,887 x 832) x 1 + (1,363 x 1,887 x 832) x 2
			inch	(53-11/16 x 74-5/16 x 32-13/16) x 3	(53-11/16 x 74-5/16 x 32-13/16) x 3	(37-3/8 x 74-5/16 x 32-13/16) x 1 + (53-11/16 x 74-5/16 x 32-13/16) x 2
Operating Temp. Range	Cooling		°C (°F)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)
	Heating		°C (°F)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)

NOTE

- Specification may be subject to change without prior notice.
- 1) Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m);
 - Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB
 - Cooling(46°C) : Indoor temperature 29°C DB, 19°C WB / Outdoor temperature 46°C DB, 24°C WB
 - Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB
- 2) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
- 3) Sound pressure level is obtained in an anechoic room.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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
- 4) 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
- 5) Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 6) These products contain R410A which is fluorinated greenhouse gas.
- 7) 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

Standard

Type			DVMS	DVMS	DVMS		
Model Name			AM440HXVFGH/ID	AM460HXVFGH/ID	AM480HXVFGH/ID		
	Outdoor unit module 1		AM120HXVFGH/ID	AM140HXVFGH/ID	AM160HXVFGH/ID		
	Outdoor unit module 2		AM160HXVFGH/ID	AM160HXVFGH/ID	AM160HXVFGH/ID		
	Outdoor unit module 3		AM160HXVFGH/ID	AM160HXVFGH/ID	AM160HXVFGH/ID		
	Outdoor unit module 4		-	-	-		
Power Supply	Ø, #, V, Hz		3, 4, 380-415, 50	3, 4, 380-415, 50	3, 4, 380-415, 50		
Mode			- HEAT PUMP	HEAT PUMP	HEAT PUMP		
Performance	HP		HP	44	46	48	
	TON		TON	35.15	36.96	38.39	
	Capacity	Cooling	kW	123.6	130.0	135.0	
			Btu/h	421,700	443,600	460,600	
			US RT	35.15	36.96	38.39	
			Cooling (46°C)	kW	109.1	115.9	120.9
				Btu/h	372,300	395,500	412,500
				US RT	31.02	32.96	34.38
		Heating	kW	138.6	145.8	151.2	
			Btu/h	472,900	497,500	515,900	
US RT			39.41	41.46	42.99		
Maximum number of connectable indoor units			EA	64	64	64	
Total capacity of the connected Indoor Units		Min.	kW	61.8	65.0	67.5	
Total capacity of the connected Indoor Units		Max.	kW	160.7	169.0	175.5	
Power	Power Input	Cooling	kW	32.02	34.09	35.43	
		Cooling (46°C)	kW	41.68	45.65	48.27	
		Heating	kW	33.65	36.70	38.28	
	Current Input	Cooling	A	55.00	58.29	62.25	
		Cooling (46°C)	A	66.80	73.20	77.40	
		Heating	A	53.92	58.85	61.38	
	Current	Minimum Ssc	MVA	23.0	24.6	26.1	
		MCA	A	108.6	116.0	123.0	
		MFA	A	125	150	150	
Efficiency	EER	Cooling	W/W	3.86	3.81	3.81	
		Cooling (46°C)	W/W	2.62	2.54	2.50	
	COP	Heating	W/W	4.12	3.97	3.95	
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 (Inverter Scroll)	Output		kW x n	(6.39 x 1) x 1 + (5.18 x 2) x 2	(5.18 x 2) x 3	(5.18 x 2) x 3	
	Model Name		-	(DS-GB066FAV* x 1) x 1 + (DS-GB052FAV* x 2) x 2	(DS-GB052FAV* x 2) x 3	(DS-GB052FAV* x 2) x 3	
	Oil	Type	-	PVE	PVE	PVE	
		Initial charge	cc x n	(1,100 x 1) x 1 + (1,100 x 2) x 2	(1,100 x 2) x 3	(1,100 x 2) x 3	
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction		-	Top	Top	Top	
	Quantity		EA	6	6	6	
	Air Flow Rate		m ³ /min (CFM)	255 x 1 + 285 x 2 (9,006 x 1 + 10,065 x 2)	285 x 3 (10,065 x 3)	285 x 3 (10,065 x 3)	
		External Static Pressure	Max.	mmAq	8	8	8
	Pa (in Wg)			78.45 (0.31)	78.45 (0.31)	78.45 (0.31)	
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	
		Φ, mm (inch)		19.05 (3/4)	19.05 (3/4)	19.05 (3/4)	
	Gas Pipe	Type		Braze connection	Braze connection	Braze connection	
		Φ, mm (inch)		41.28 (1-5/8)	41.28 (1-5/8)	41.28 (1-5/8)	
	High pressure Gas Pipe(HR Only)	Type		-	-	-	
		Φ, mm (inch)		-	-	-	
	Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length (ODU-IDU)	Max. [Equiv.]	m (ft)	200[220] (656[722])	200[220] (656[722])	200[220] (656[722])	
Piping length (1st Branch-IDU)	Max.	m (ft)	90 (295)	90 (295)	90 (295)		
Total piping length (System)	Max.	m (ft)	1,000 (3,281)	1,000 (3,281)	1,000 (3,281)		

2. Specification

Standard

Type			DVM S	DVM S	DVM S	
Model Name			AM440HXVFGH/ID	AM460HXVFGH/ID	AM480HXVFGH/ID	
	Outdoor unit module 1		AM120HXVFGH/ID	AM140HXVFGH/ID	AM160HXVFGH/ID	
	Outdoor unit module 2		AM160HXVFGH/ID	AM160HXVFGH/ID	AM160HXVFGH/ID	
	Outdoor unit module 3		AM160HXVFGH/ID	AM160HXVFGH/ID	AM160HXVFGH/ID	
	Outdoor unit module 4		-	-	-	
Piping Connections	Level difference (ODU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU in highest position)	Max.	m (ft)	110 (361)	110 (361)	110 (361)
	Level difference (IDU-IDU)	Max.	m (ft)	50 (164)	50 (164)	50 (164)
Wiring connections	Transmission Cable	Min.	mm ²	0.75	0.75	0.75
	Remark	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 (lbs)	7.7 x 1 + 8.4 x 2 (17.0 x 1 + 18.5 x 2)	7.7 x 1 + 8.4 x 2 (17.0 x 1 + 18.5 x 2)	8.4 x 3 (18.5 x 3)
Sound	Sound Pressure	Cooling	dB(A)	66	67	67
		Heating	dB(A)	68	69	69
	Sound Power	-	dB(A)	88	88	89
External Dimension	Net Weight		kg (lbs)	236.0 x 1 + 296.0 x 2 (520.3 x 1 + 652.6 x 2)	276.0 x 1 + 296.0 x 2 (608.5 x 1 + 652.6 x 2)	296.0 x 3 (652.6 x 3)
	Shipping Weight		kg (lbs)	249.0 x 1 + 306.0 x 2 (549.0 x 1 + 674.6 x 2)	289.0 x 1 + 306.0 x 2 (637.1 x 1 + 674.6 x 2)	306.0 x 3 (674.6 x 3)
	Net Dimensions (WxHxD)		mm	(1,295 x 1,695 x 765) x 3	(1,295 x 1,695 x 765) x 3	(1,295 x 1,695 x 765) x 3
			inch	(51 x 66-3/4 x 30-1/8) x 3	(51 x 66-3/4 x 30-1/8) x 3	(51 x 66-3/4 x 30-1/8) x 3
	Shipping Dimensions (WxHxD)		mm	(1,363 x 1,887 x 832) x 3	(1,363 x 1,887 x 832) x 3	(1,363 x 1,887 x 832) x 3
			inch	(53-11/16 x 74-5/16 x 32-13/16) x 3	(53-11/16 x 74-5/16 x 32-13/16) x 3	(53-11/16 x 74-5/16 x 32-13/16) x 3
Operating Temp. Range	Cooling	-	°C (°F)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)	-5 ~ 54 (23 ~ 129)
	Heating	-	°C (°F)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)	-25 ~ 24 (-13 ~ 75)

NOTE

- Specification may be subject to change without prior notice.
- 1) Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m);
 - Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB
 - Cooling(46°C) : Indoor temperature 29°C DB, 19°C WB / Outdoor temperature 46°C DB, 24°C WB
 - Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB
- 2) Allowed combination ratio of the total rated indoor unit capacity over the rated outdoor unit capacity is 50~130%.
- 3) Sound pressure level is obtained in an anechoic room.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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
- 4) 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
- 5) Sound values of multi combination are theoretical values based on sound results of individual installed units.
- 6) These products contain R410A which is fluorinated greenhouse gas.
- 7) 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

Standard

Capacity		Model	Power Supply		Voltage Range		Running Current [A]			Current [A]		ODU Fan Motor	
HP	kW		Hz	Voltage	Min. (-10%)	Max. (+10%)	Cooling	Cooling (46°C)	Heating	MCA	MFA	kW	FLA [A]
8	22.4	AM080HXVFGH/ID	50	380-415	342	456	8.40	10.00	8.20	22.0	25	0.83	2.4
10	28	AM100HXVFGH/ID	50	380-415	342	456	11.60	14.45	12.20	24.0	32	0.83	2.4
12	33.6	AM120HXVFGH/ID	50	380-415	342	456	13.50	15.20	13.00	26.6	32	1.24	3.8
14	40	AM140HXVFGH/ID	50	380-415	342	456	16.79	21.60	17.93	34.0	40	1.24	3.8
16	45	AM160HXVFGH/ID	50	380-415	342	456	20.75	25.80	20.46	41.0	50	1.24	3.8
18	50.4	AM180HXVFGH/ID	50	380-415	342	456	20.00	24.45	20.40	46.0	63	1.66	4.8
20	56	AM200HXVFGH/ID	50	380-415	342	456	23.20	28.90	24.40	48.0	63	1.66	4.8
22	61.6	AM220HXVFGH/ID	50	380-415	342	456	25.10	29.65	25.20	50.6	63	2.07	6.2
24	67.2	AM240HXVFGH/ID	50	380-415	342	456	27.00	30.40	26.00	53.2	63	2.48	7.6
26	73.6	AM260HXVFGH/ID	50	380-415	342	456	30.29	36.80	30.93	60.6	75	2.48	7.6
28	78.6	AM280HXVFGH/ID	50	380-415	342	456	34.25	41.00	33.46	67.6	75	2.48	7.6
30	85	AM300HXVFGH/ID	50	380-415	342	456	37.54	47.40	38.39	75.0	90	2.48	7.6
32	90	AM320HXVFGH/ID	50	380-415	342	456	41.50	51.60	40.92	82.0	90	2.48	7.6
34	95.2	AM340HXVFGH/ID	50	380-415	342	456	38.60	44.85	38.20	77.2	90	3.31	10.0
36	100.8	AM360HXVFGH/ID	50	380-415	342	456	40.50	45.60	39.00	79.8	90	3.72	11.4
38	107.2	AM380HXVFGH/ID	50	380-415	342	456	43.79	52.00	43.93	87.2	100	3.72	11.4
40	112.2	AM400HXVFGH/ID	50	380-415	342	456	47.75	56.20	46.46	94.2	125	3.72	11.4
42	118	AM420HXVFGH/ID	50	380-415	342	456	53.10	66.05	53.12	106.0	125	3.31	10.0
44	123.6	AM440HXVFGH/ID	50	380-415	342	456	55.00	66.80	53.92	108.6	125	3.72	11.4
46	130	AM460HXVFGH/ID	50	380-415	342	456	58.29	73.20	58.85	116.0	150	3.72	11.4
48	135	AM480HXVFGH/ID	50	380-415	342	456	62.25	77.40	61.38	123.0	150	3.72	11.4

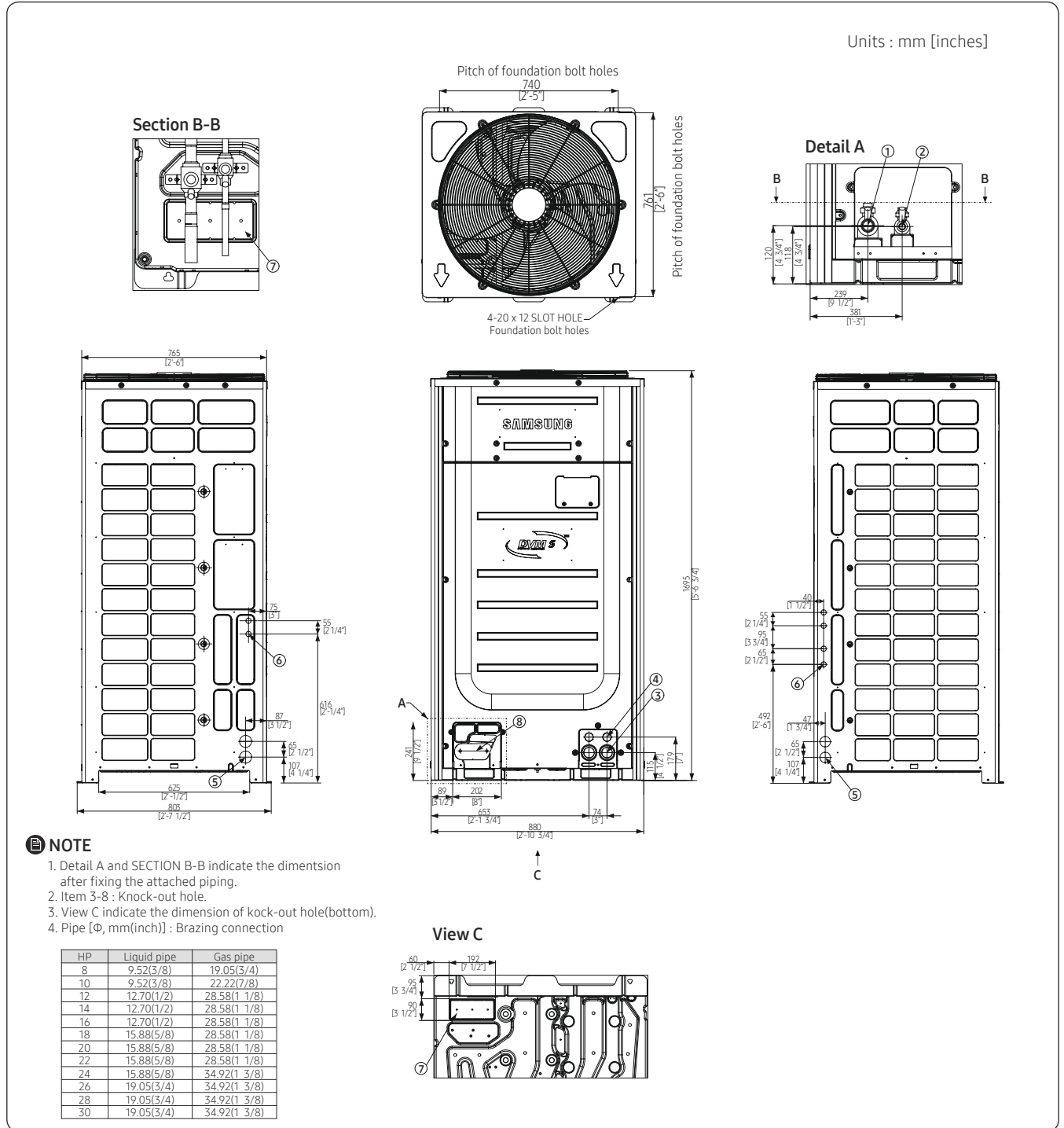
 **NOTE**

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

4. Dimensional Drawing

Outdoor unit

- AM080~100HXVFGH



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)	

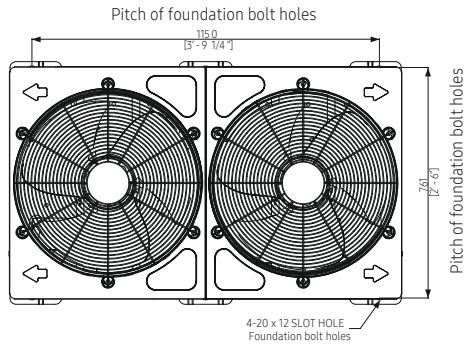
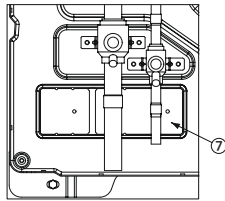
4. Dimensional Drawing

Outdoor unit

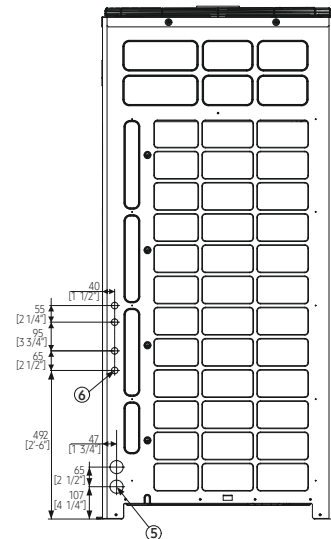
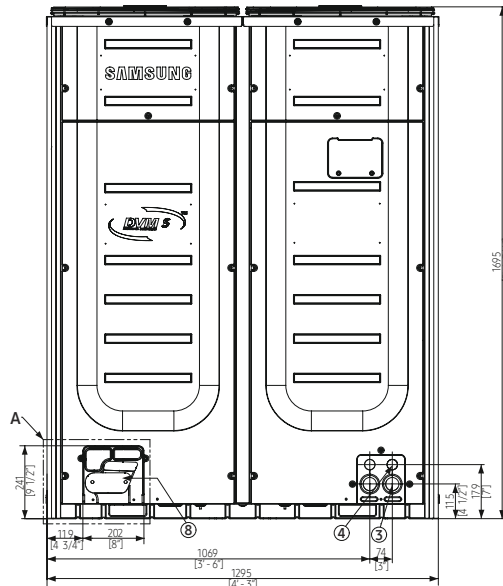
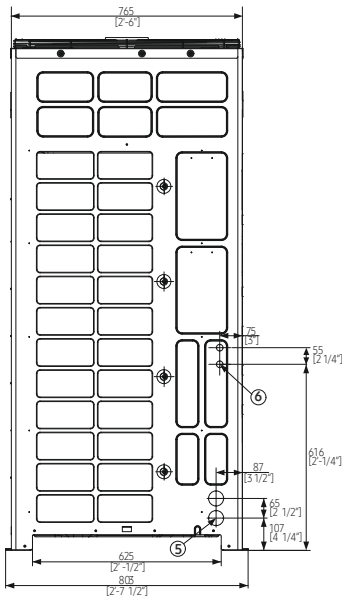
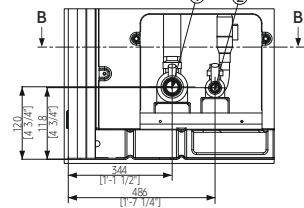
- AM120~160HXVFGH

Units : mm [inches]

Section B-B



Detail A

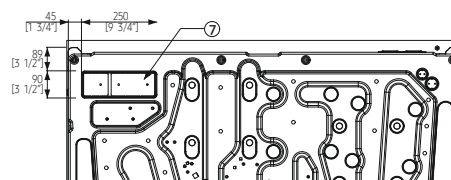


NOTE

- Detail A and SECTION B-B indicate the dimension after fixing the attached piping.
- Item 3-8 : Knock-out hole.
- View C indicate the dimension of knock-out hole(bottom).
- Pipe [Φ, mm(inch)] : Brazing connection

HP	Liquid pipe	Gas pipe
8	9.52(3/8)	19.05(3/4)
10	9.52(3/8)	22.22(7/8)
12	12.70(1/2)	28.58(1 1/8)
14	12.70(1/2)	28.58(1 1/8)
16	12.70(1/2)	28.58(1 1/8)
18	15.88(5/8)	28.58(1 1/8)
20	15.88(5/8)	28.58(1 1/8)
22	15.88(5/8)	28.58(1 1/8)
24	15.88(5/8)	34.92(1 3/8)
26	19.05(3/4)	34.92(1 3/8)
28	19.05(3/4)	34.92(1 3/8)
30	19.05(3/4)	34.92(1 3/8)

View C

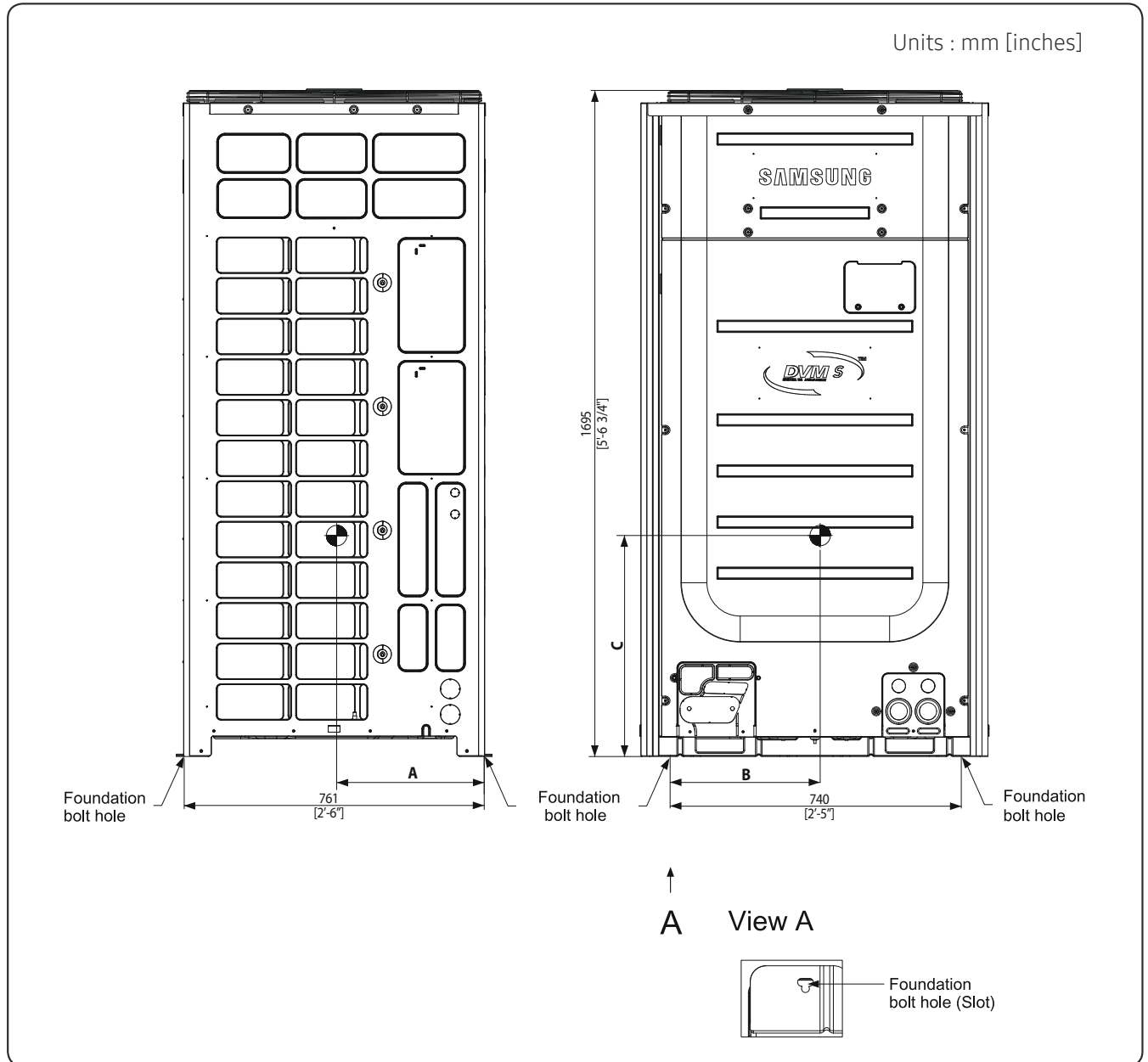


NO	Table of descriptions	Remark	NO	Table of descriptions	Remark
1	Gas Ref. pipe	See note 4.	5	Power wiring conduit	Φ44
2	Liquid Ref. pipe	See note 4.	6	Communication wiring conduit	Φ22
3	Power wiring conduit	Φ44	7	Knock-out Hole for Ref. Piping (bottom)	
4	Communication wiring conduit	Φ34	8	Knock-out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

5. Center of Gravity

Outdoor unit

- AM080~100HXVFGH

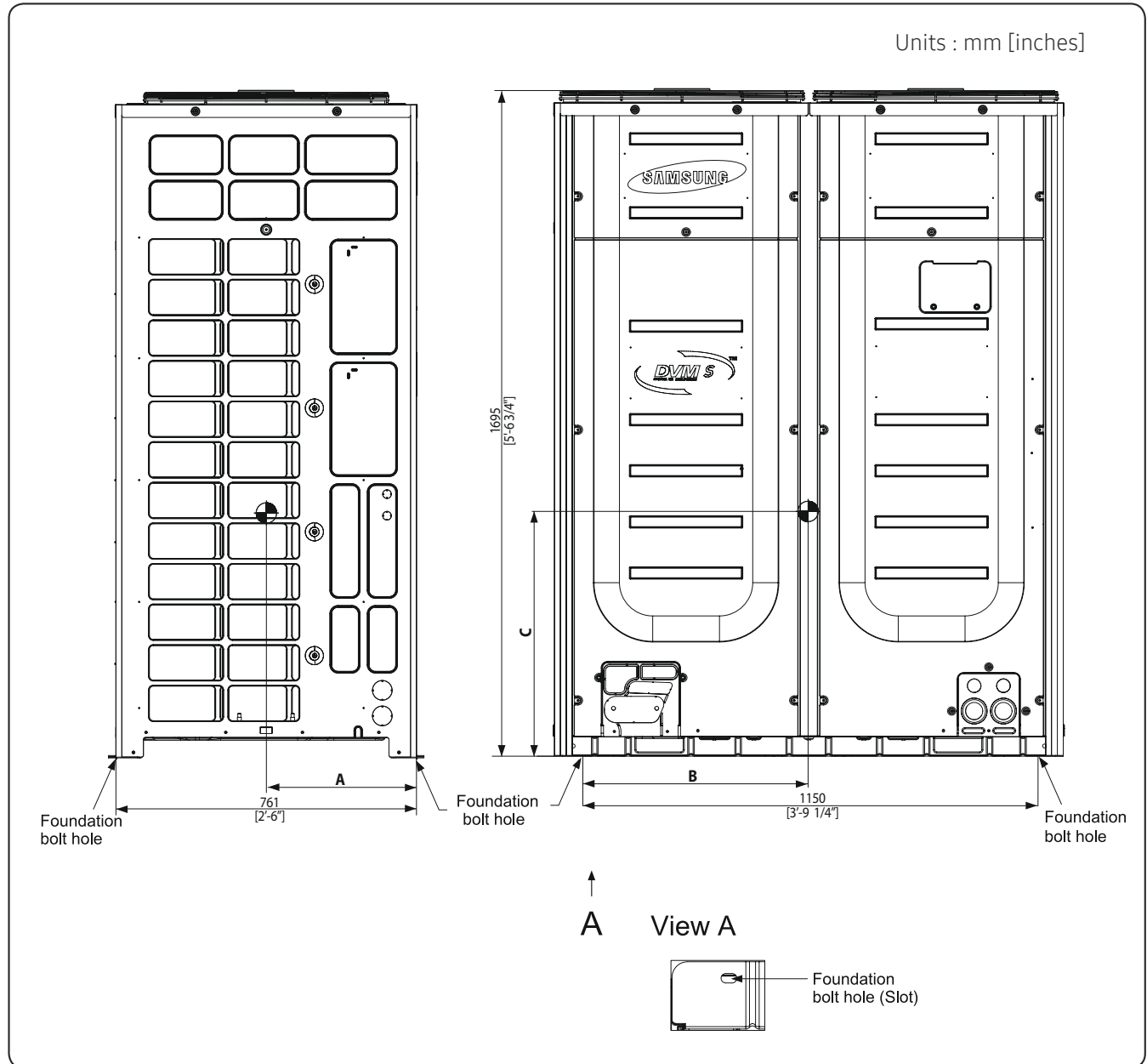


Model	A	B	C
AM080*****	360 [1'-2 1/4"]	455 [1'-6"]	560 [1'-10"]
AM100*****	360 [1'-2 1/4"]	455 [1'-6"]	560 [1'-10"]

5. Center of Gravity

Outdoor unit

- AM120~160HXVFGH

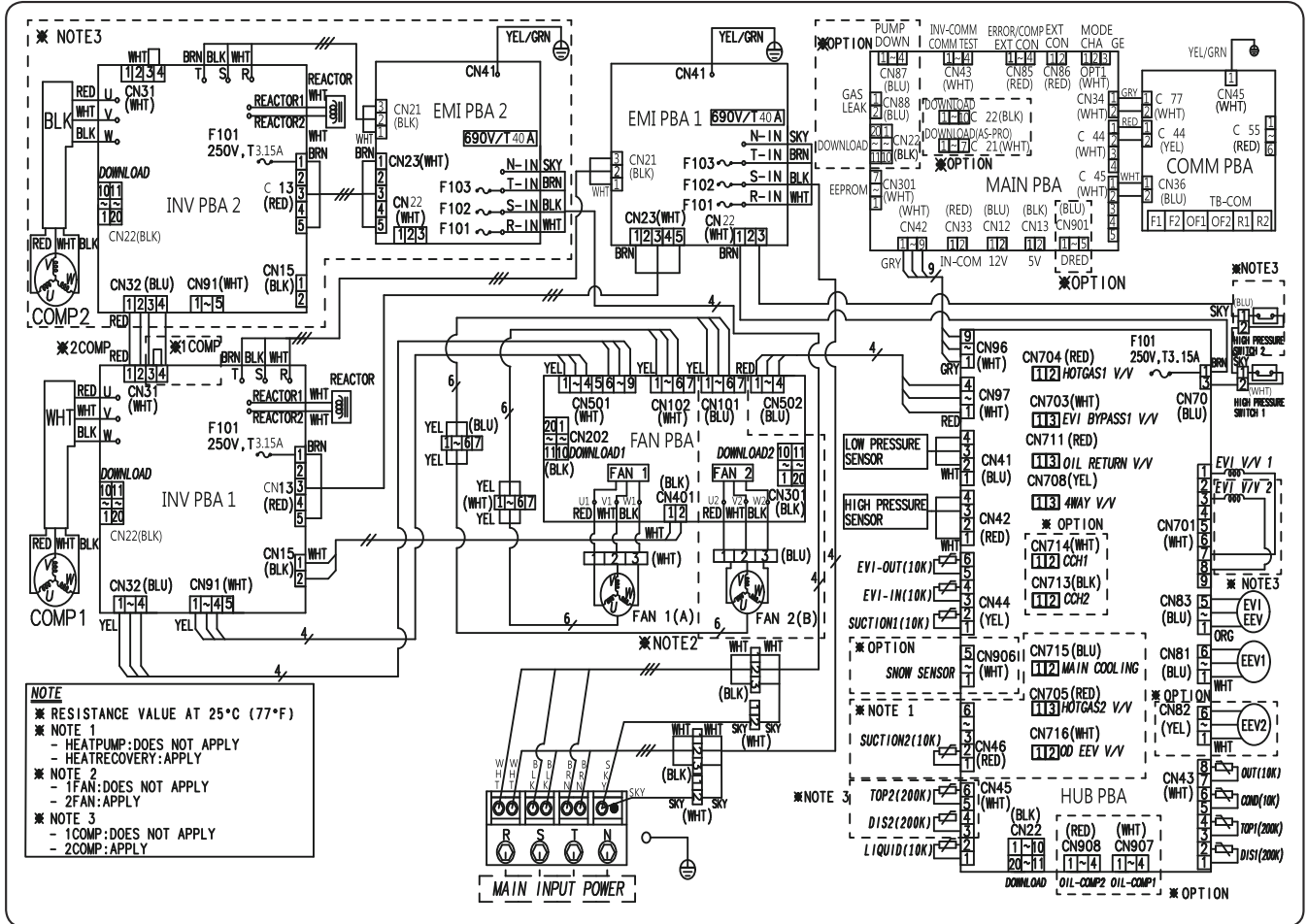


Model	A	B	C
AM120xxxxxx	370 [1'-2 1/2"]	595 [1'-11"]	620 [2'-4"]
AM140xxxxxx	365 [1'-2 3/8"]	655 [2'-1 3/4"]	620 [2'-4"]
AM160xxxxxx	365 [1'-2 3/8"]	655 [2'-1 3/4"]	620 [2'-4"]

6. Electrical Wiring Diagrams

Outdoor unit

- AM080~160HXVFGH



INV PBA1	Printed circuit board (inverter1)	EEV1	Electronic expansion valve 1	LIQUID(10K)	Thermistor (Liquid Tube Temp_10Kohm)
INV PBA2	Printed circuit board (inverter2)	EEV2	Electronic expansion valve 2	HOTGAS1 V/V	Solenoid valve (Hot Gas Bypass1)
EMI PBA1	Printed circuit board (emi1)	EVI-OUT(10K)	Thermistor (EVI-out_10kohm)	EVI BYPASS V/V	Solenoid valve (EVI BYPASS)
EMI PBA2	Printed circuit board (emi2)	EVI-IN(10K)	Thermistor (EVI-in_10kohm)	RETURN V/V	Solenoid valve (Accumulator Oil Return)
FAN PBA	Printed circuit board (fan motor)	SUCTION1(10K)	Thermistor (Suction Temp.1_10Kohm)	4WAY V/V	Solenoid valve (4 Way valve)
MAIN PBA	Printed circuit board (main)	SUCTION2(10K)	Thermistor (Suction Temp.2_10Kohm)	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 (Hot Gas Bypass2)
COMP2	Motor (compressor2)	OUT(10K)	Thermistor (Ambient Temp_10Kohm)	OD EEV V/V	Solenoid valve (Outdoor EEV)
FAN1	Motor (fan1)	COND(10K)	Thermistor (Cond Out Temp_10Kohm)	F101	FUSE (Inverter PBA)
FAN2	Motor (fan2)	TOP1(200K)	Thermistor (Compressor Top 1_200Kohm)	690V/T40A	FUSE (EMI PBA)
EVI V/V1	Solenode valve (EVI1)	TOP2(200K)	Thermistor (Compressor Top 2_200Kohm)	MODE CHANGE	Connector (Remote switching cool/heat selector)
EVI V/V2	Solenode valve (EVI2)	DIS1(200K)	Thermistor (Discharge Temp.1_200Kohm)	EXT CON	Connector (Output EXT CON)
EVI EEV	Electronic expansion valve (EVI)	DIS2(200K)	Thermistor (Discharge Temp.2_200Kohm)	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

Standard

Capacity		Model	Sound Pressure dB(A)		Sound Power dB(A)
HP	kW		Cooling	Heating	
8	22.4	AM080HXVFGH/ID	57	59	77
10	28.0	AM100HXVFGH/ID	58	60	79
12	33.6	AM120HXVFGH/ID	61	63	81
14	40.0	AM140HXVFGH/ID	62	64	83
16	45.0	AM160HXVFGH/ID	62	64	84
18	50.4	AM180HXVFGH/ID	61	63	81
20	56.0	AM200HXVFGH/ID	61	63	82
22	61.6	AM220HXVFGH/ID	63	65	83
24	67.2	AM240HXVFGH/ID	64	66	84
26	73.6	AM260HXVFGH/ID	65	67	85
28	78.6	AM280HXVFGH/ID	65	67	86
30	85.0	AM300HXVFGH/ID	65	67	87
32	90.0	AM320HXVFGH/ID	65	67	87
34	95.2	AM340HXVFGH/ID	65	67	85
36	100.8	AM360HXVFGH/ID	66	68	86
38	107.2	AM380HXVFGH/ID	66	68	87
40	112.2	AM400HXVFGH/ID	66	68	87
42	118.0	AM420HXVFGH/ID	66	68	88
44	123.6	AM440HXVFGH/ID	66	68	88
46	130.0	AM460HXVFGH/ID	67	69	88
48	135.0	AM480HXVFGH/ID	67	69	89

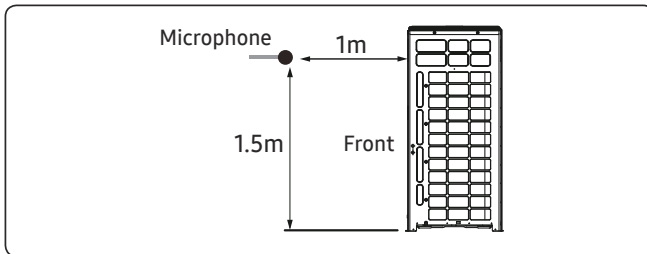
NOTE

- Sound Pressure Level
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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

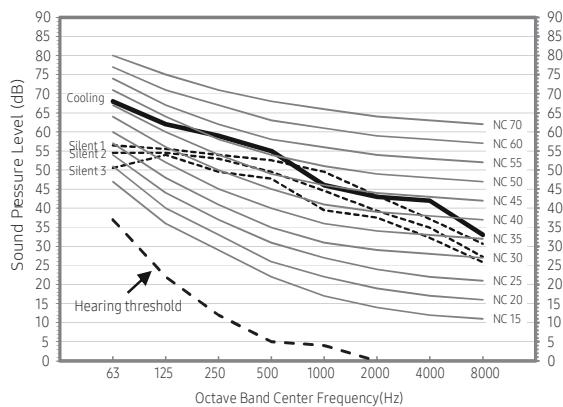
Unit: dB(A)



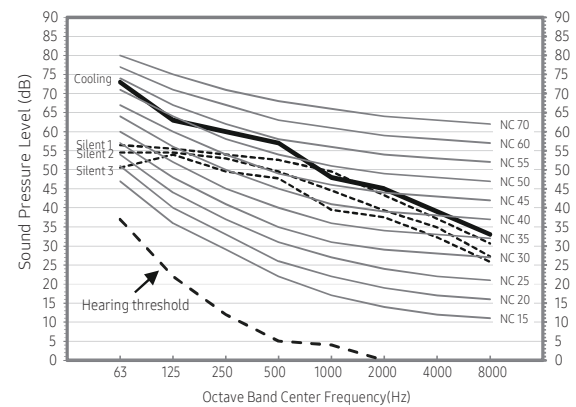
Model	Cooling	Silent 1	Silent 2	Silent 3
AM080HXVFGH/ID	57	55	52	49
AM100HXVFGH/ID	58	55	52	49
AM120HXVFGH/ID	61	57	55	49
AM140HXVFGH/ID	62	57	55	49

• NR Curve

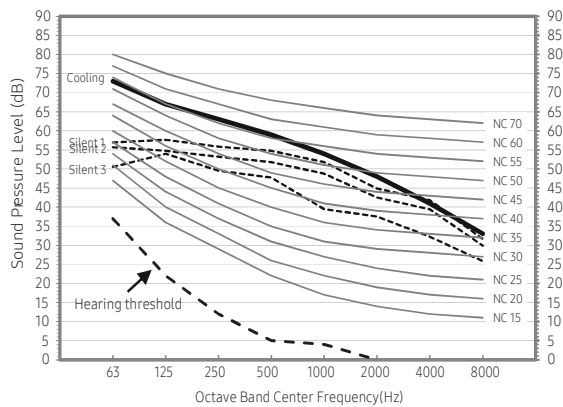
1) AM080HXVFGH/ID



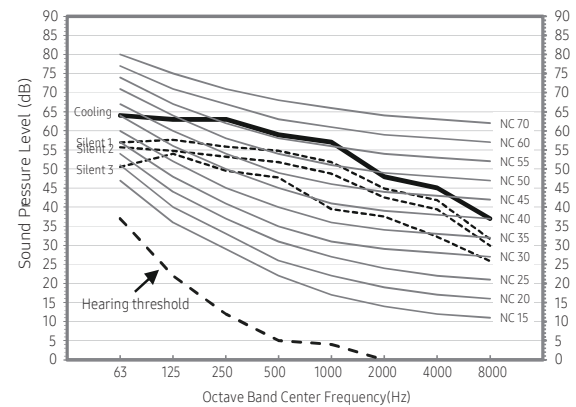
2) AM100HXVFGH/ID



3) AM120HXVFGH/ID



4) AM140HXVFGH/ID



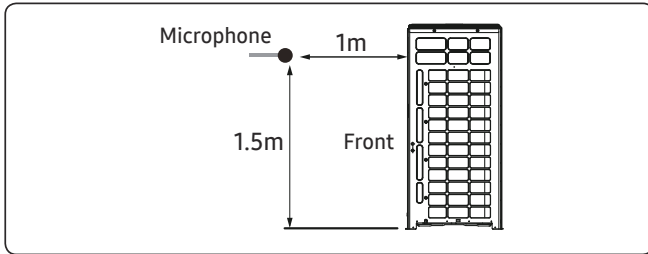
NOTE

- Specifications may be subject to change without prior notice.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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

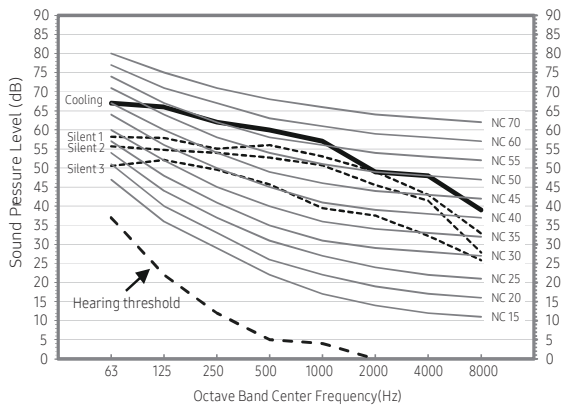
Unit: dB(A)



Model	Cooling	Silent 1	Silent 2	Silent 3
AM160HXVFGH/ID	62	59	56	49

- NR Curve

1) AM160HXVFGH/ID



NOTE

- Specifications may be subject to change without prior notice.
 - Sound pressure level based on T1 condition (Indoor temperature 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, 24°C WB)
 - 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

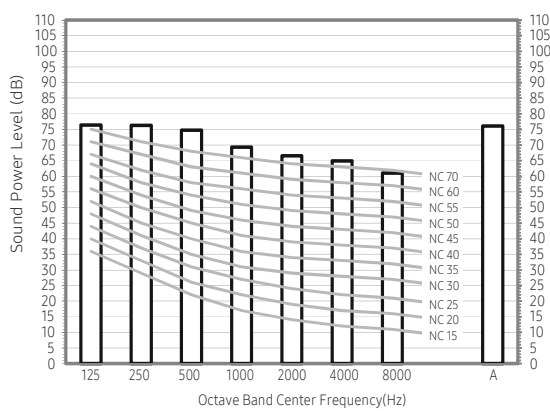
7. Sound Data

Sound Power level

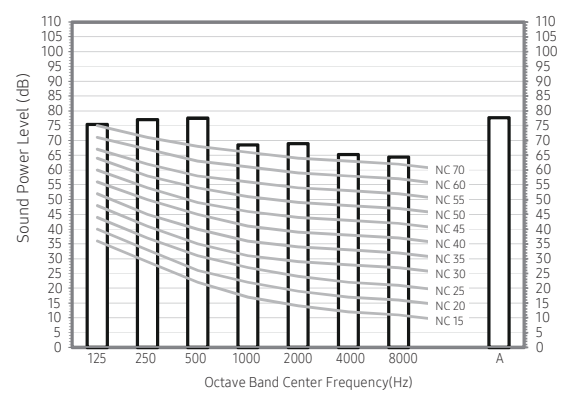
Unit: dB(A)

Model	Power
AM080HXVFGH/ID	77
AM100HXVFGH/ID	79
AM120HXVFGH/ID	81
AM140HXVFGH/ID	83

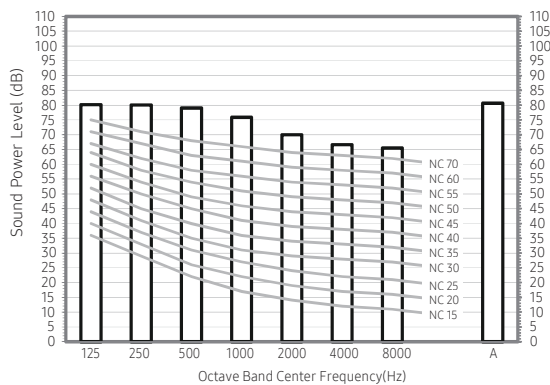
1) AM080HXVFGH/ID



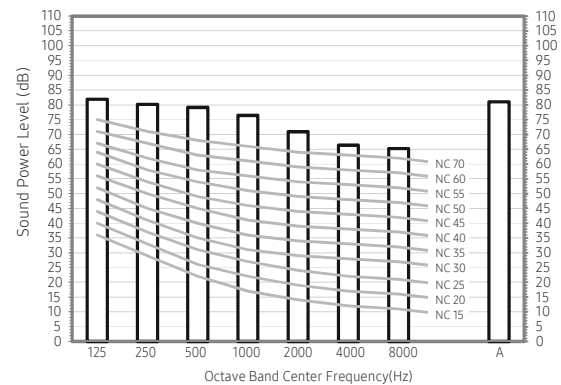
2) AM100HXVFGH/ID



3) AM120HXVFGH/ID



4) AM140HXVFGH/ID



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.

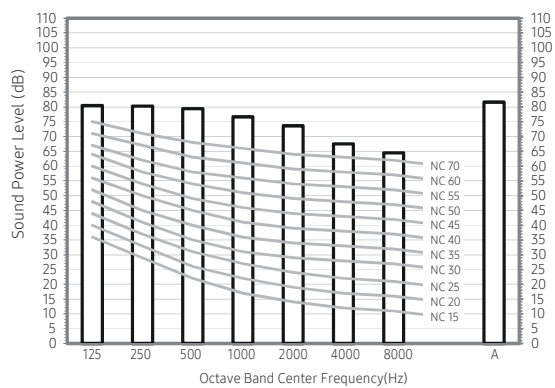
7. Sound Data

Sound Power level

Unit: dB(A)

Model	Power
AM160HXVFGH/ID	84

1) AM160HXVFGH/ID

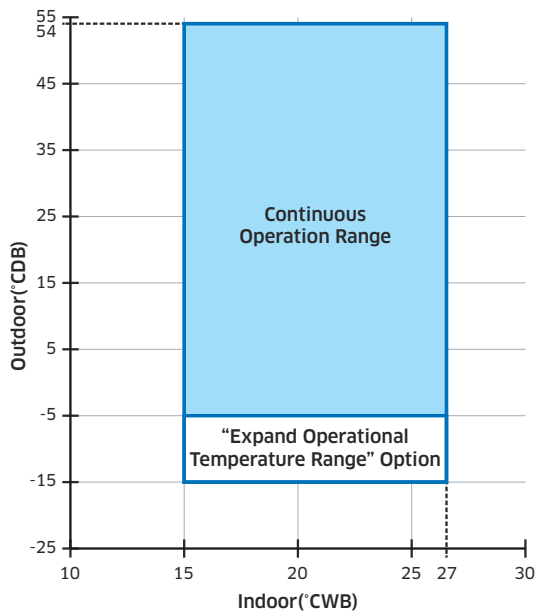


NOTE

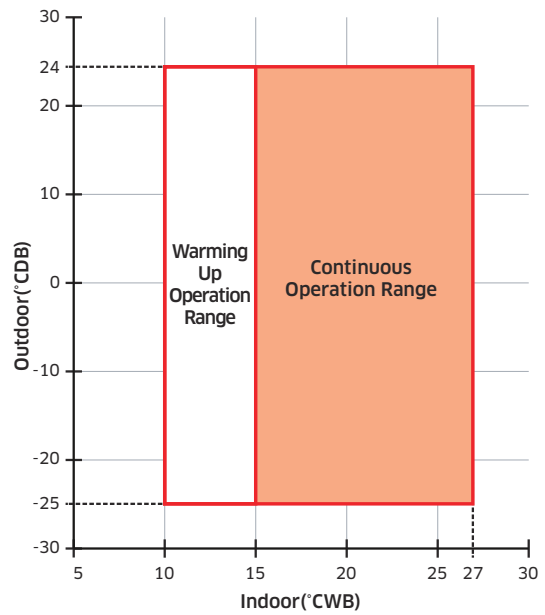
- Specifications may be subject to change without prior notice.
 - Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level.
 - Reference power : 1pW.
 - Measured according to ISO 3741.

8. Operation Range

Cooling



Heating



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

8. Operation Range

Defrosting correction factor

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

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

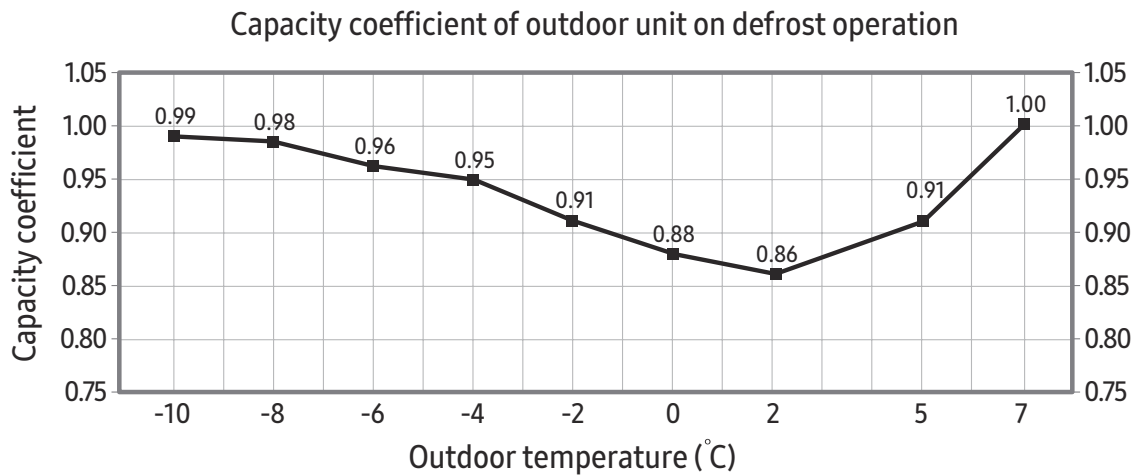
Formula : $A = B \times C$

Integrated heating capacity = A

Value given in table of capacity characteristics = B

Integrating correction factor for frost accumulation (kW) = C

Outdoor temperature (°C, DB/WB)	-10/-10.4	-8/-8.5	-6/-6.5	-4/-4.6	-2/-2.7	0/-0.7	2/1.2	5/4.1	7/6
Capacity coefficient	0.99	0.98	0.96	0.95	0.91	0.88	0.86	0.91	1.00



On heating operation, frost can be formed on heat exchanger according to outdoor temperature. (Frost on heat exchanger results in decreasing the performance.)

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

During defrost operation, capacity of outdoor unit may decrease.

The decrement is not considered to the individual capacity tables.

This figure shows an effect of intelligence defrost operation

It is actually the frost occurrence section from 0 °C or less.

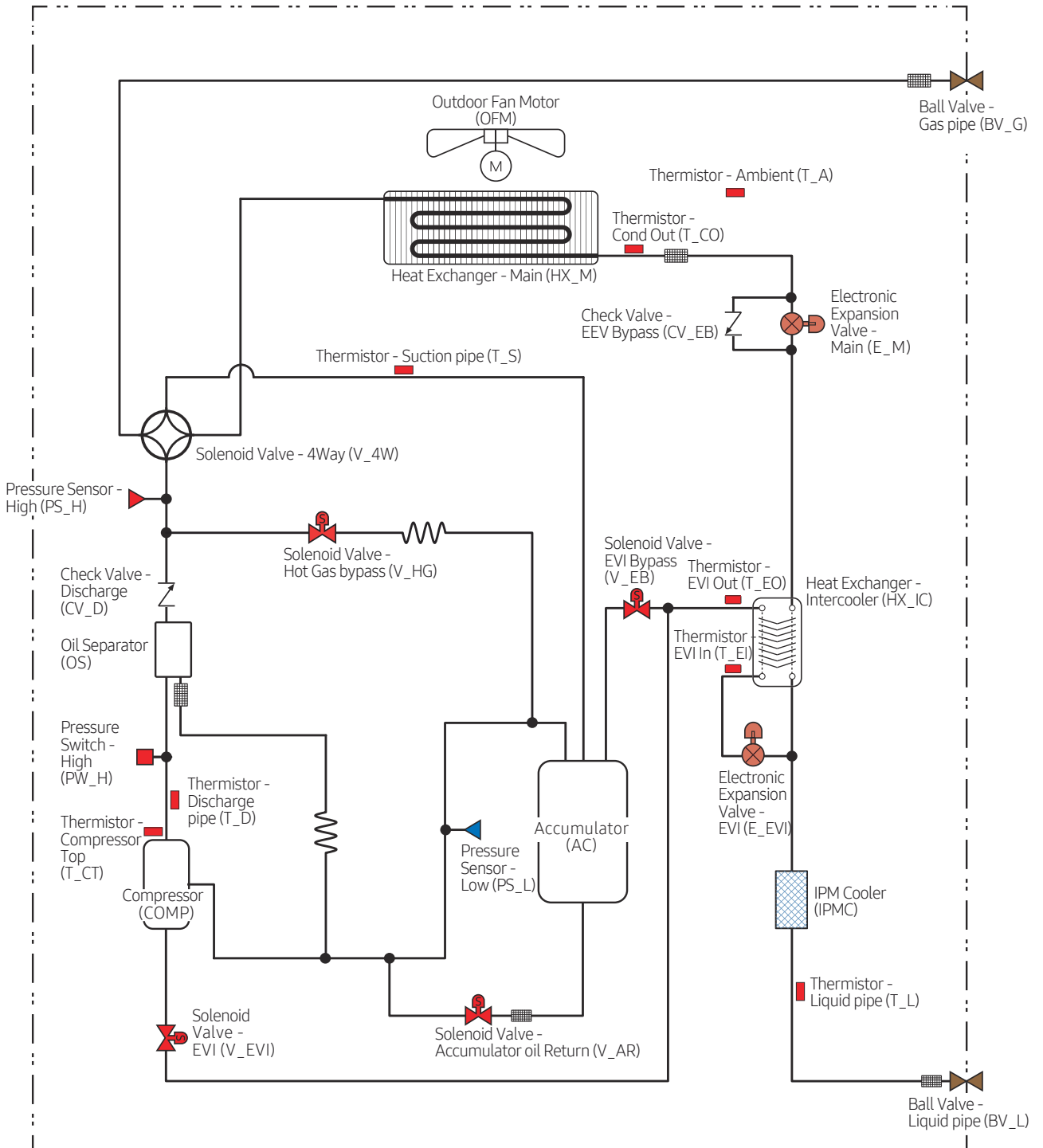
Since the outdoor temperature over 0 °C, the heating performance is the same before and after applying intelligence defrost operation

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

9. Piping Diagram

Outdoor unit

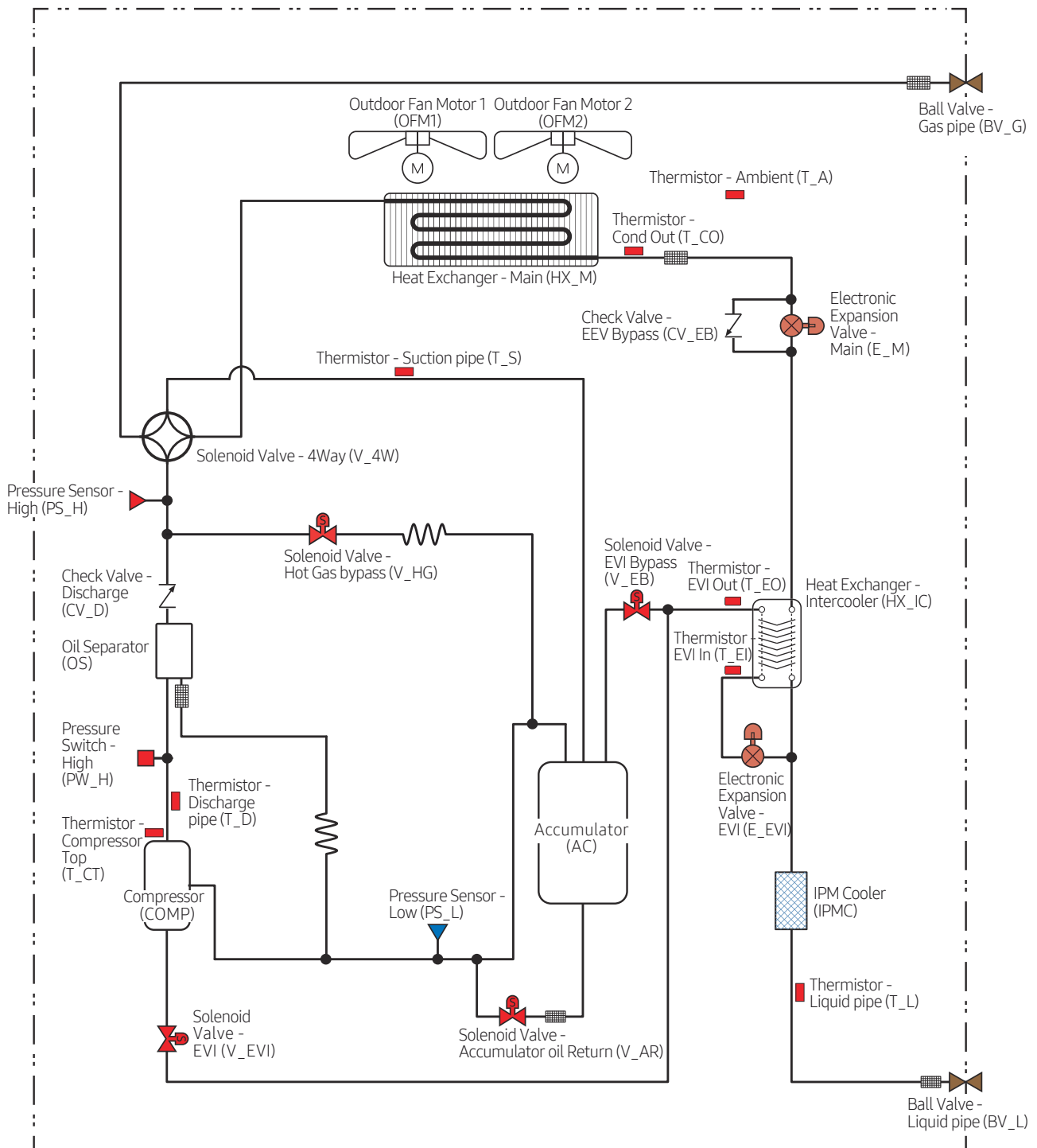
(1) AM080-100HXVFGH



9. Piping Diagram

Outdoor unit

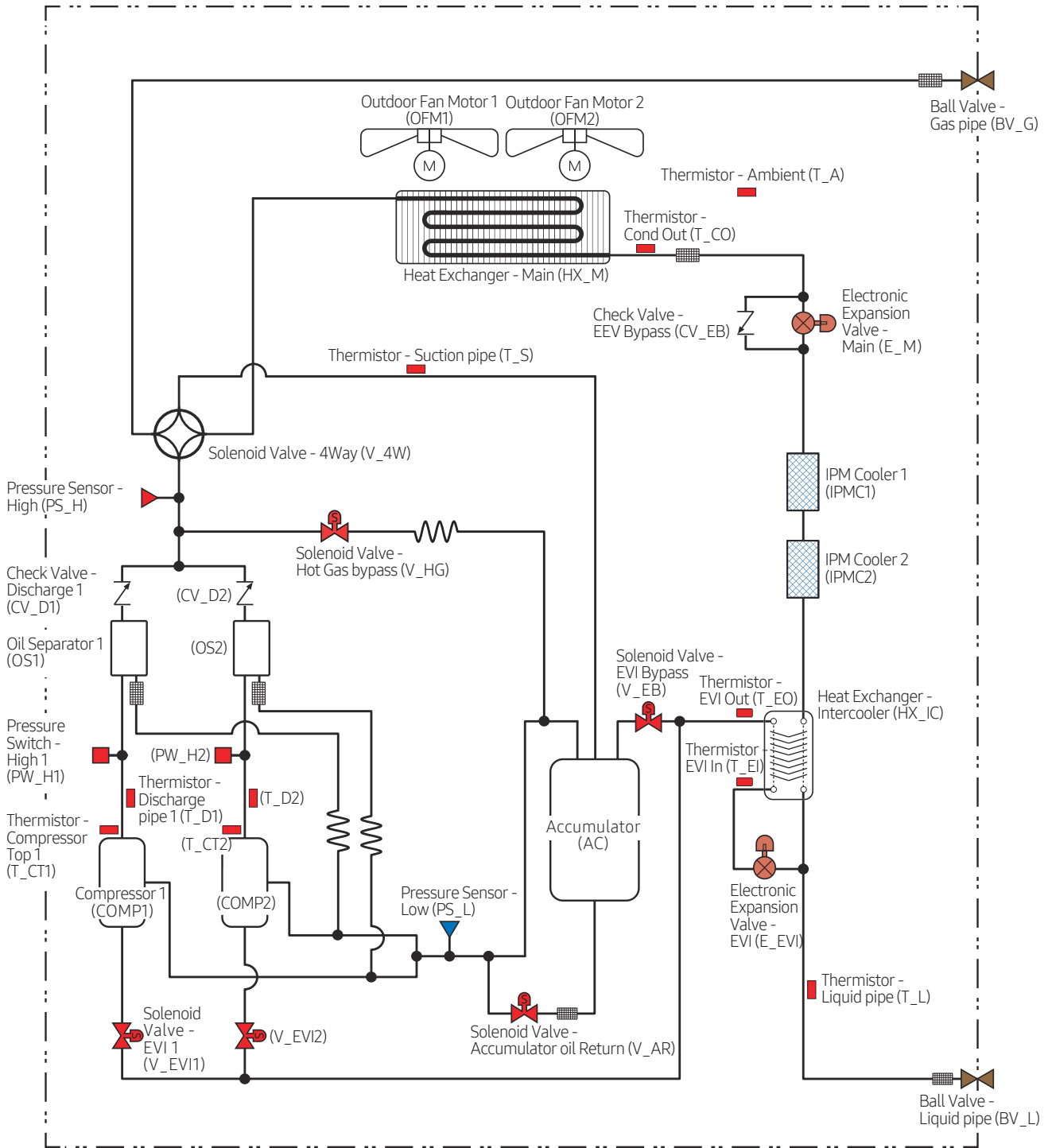
(2) AM120HXVFGH



9. Piping Diagram

Outdoor unit

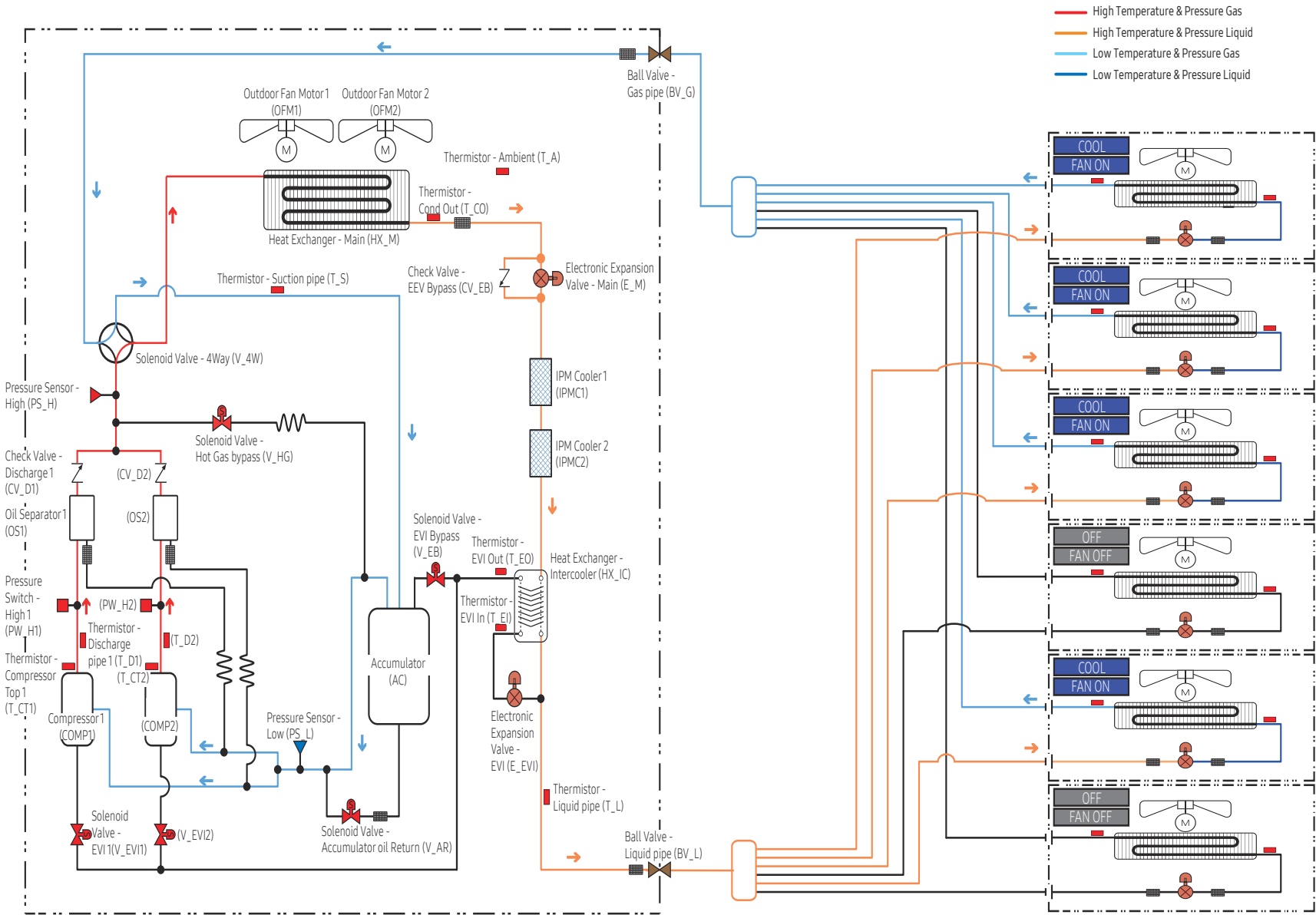
(3) AM140~160HXVFGH

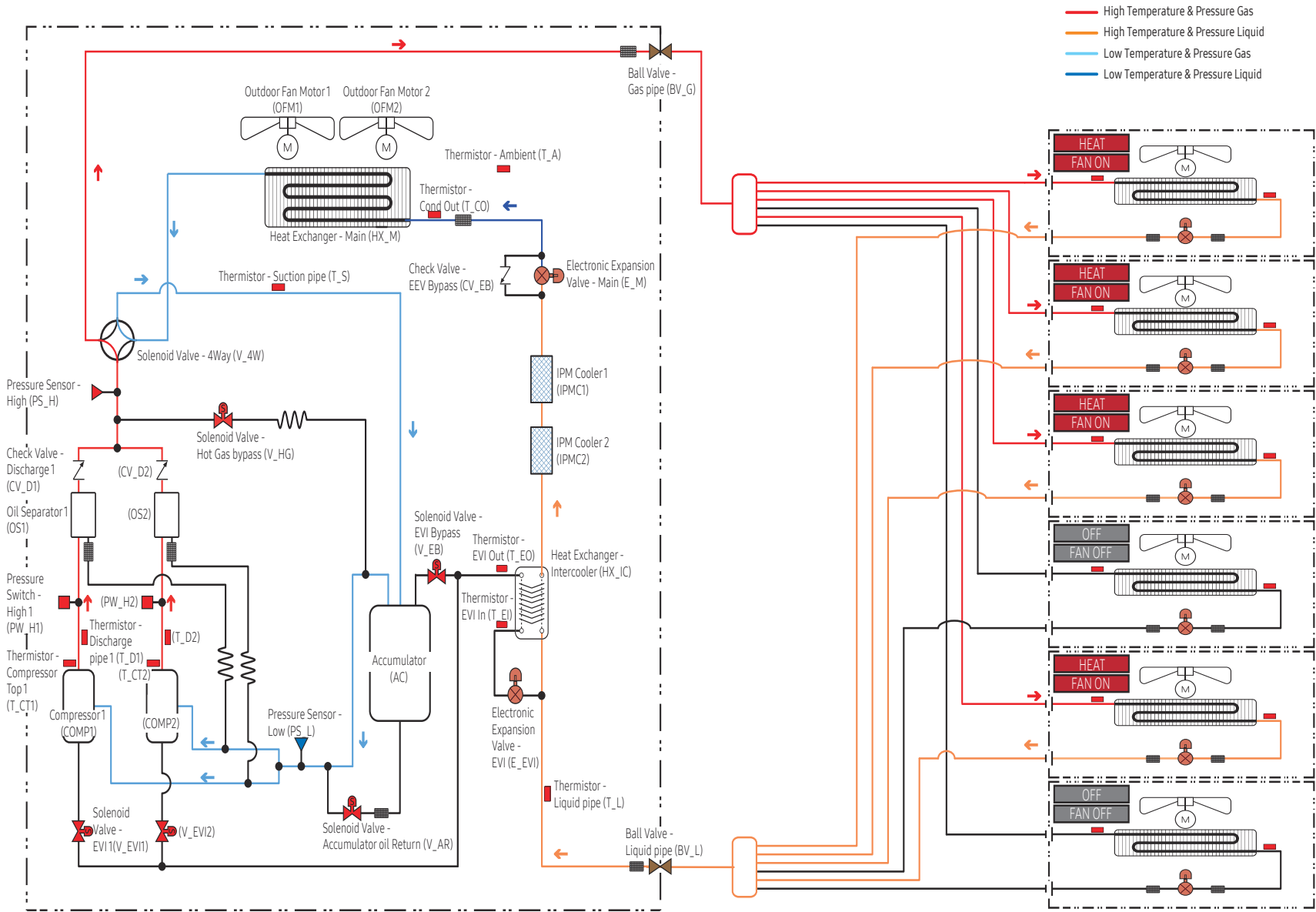


9. Piping Diagram

Cooling System

- 16HP with indoor units





- 16HP with indoor units

Heating System

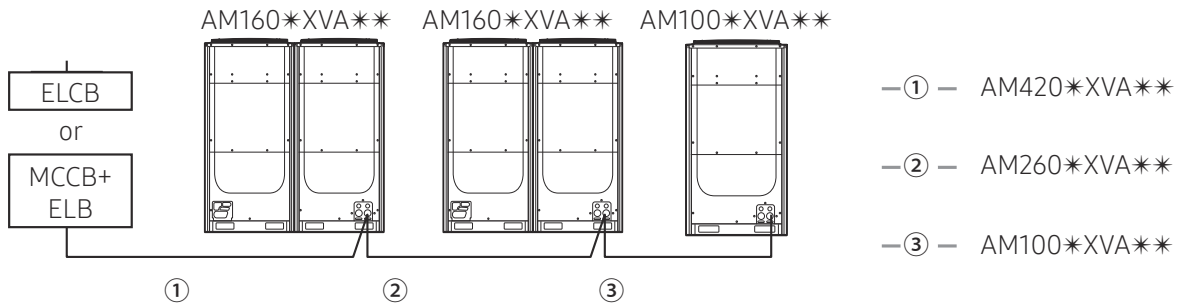
9. Piping Diagram

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.) AM420*XVA**



NOTE

- 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.
- This equipment complies with IEC 61000-3-12 provided that the short-circuit power S_{sc} is greater than or equal to $S_{sc}(*2)$ at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with a short-circuit power S_{sc} greater than or equal to $S_{sc}(*2)$.

[$S_{sc}(*2)$]

Model	S_{sc} [MVA]
AM080HXVFGH**	3.3
AM100HXVFGH**	4.7
AM120HXVFGH**	5.3
AM140HXVFGH**	7.7
AM160HXVFGH**	7.8

10. Installation

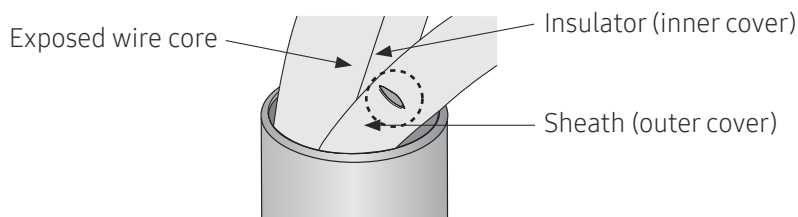
Electrical wiring work



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.



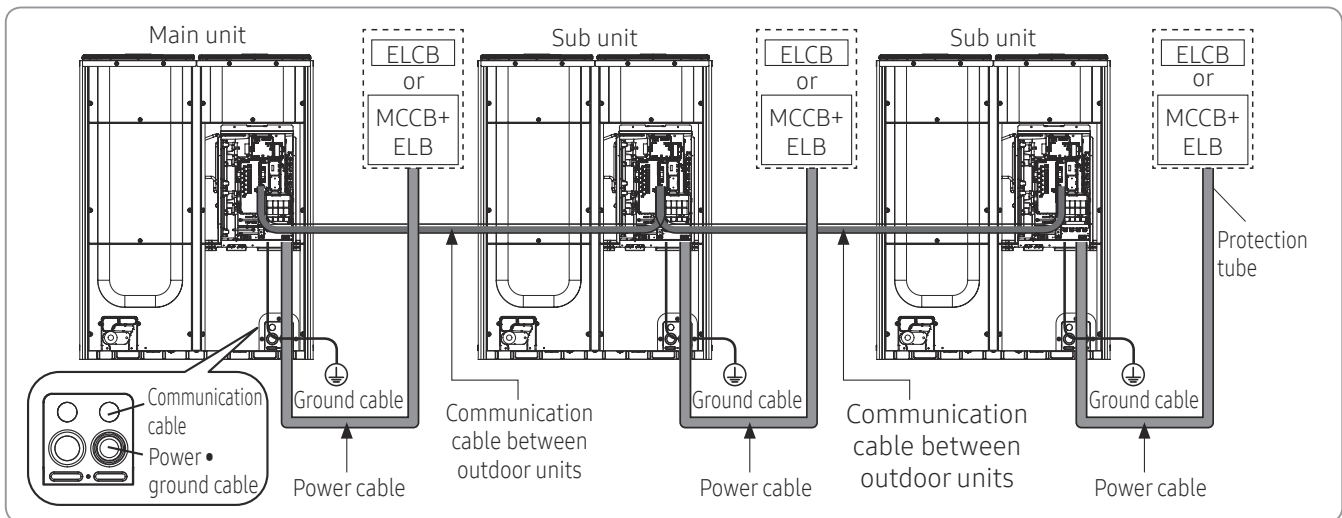
<The example of exposed core wire>

10. Installation

Electrical wiring work

Power and communication cable configuration

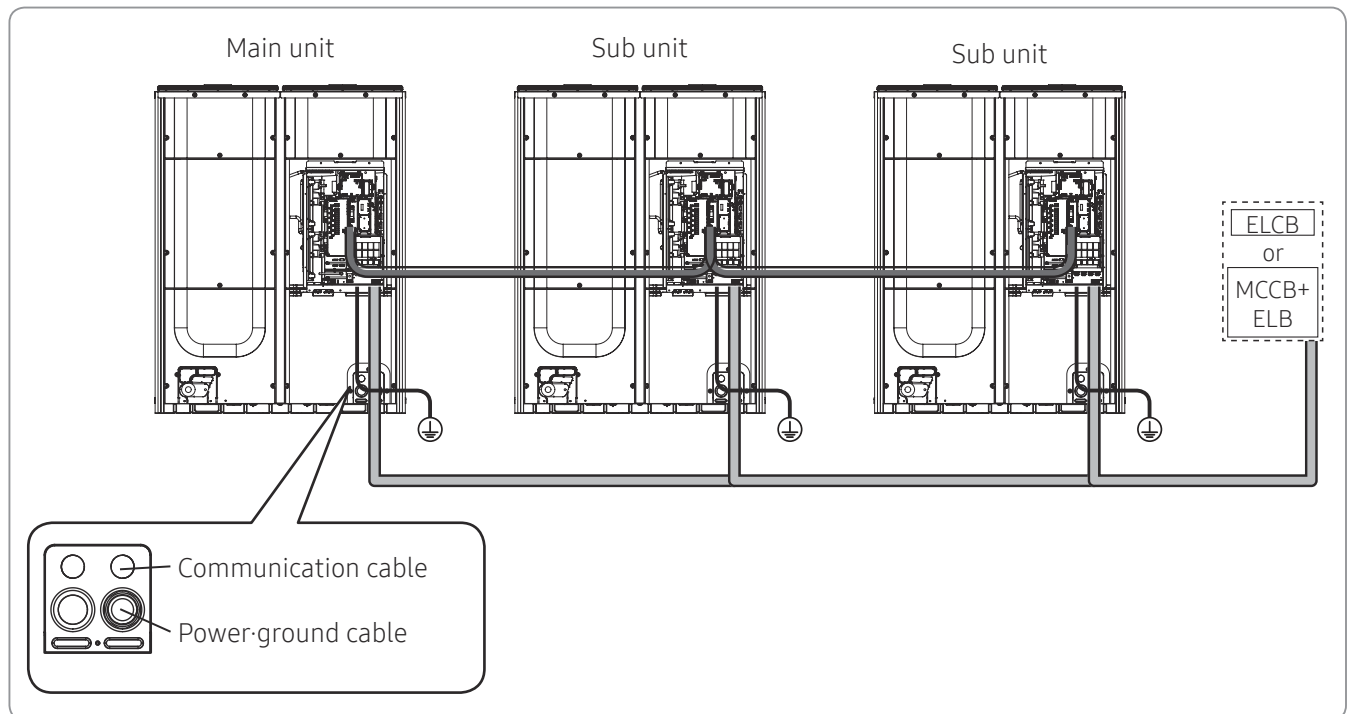
- Main power and the ground cable must be withdrawn through the knock-out hole on the bottom-right or right side of the cabinet.
- Withdraw the communication cable from the designated knock-out hole on the bottom-right side of the front part.
- Install the power and communication cable using separate 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.







10. Installation

Electrical wiring work

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



-  Communication cable between outdoor units
-  Power cable
-  Protection tube
-  Power/ground cable

Specification of the protection tube

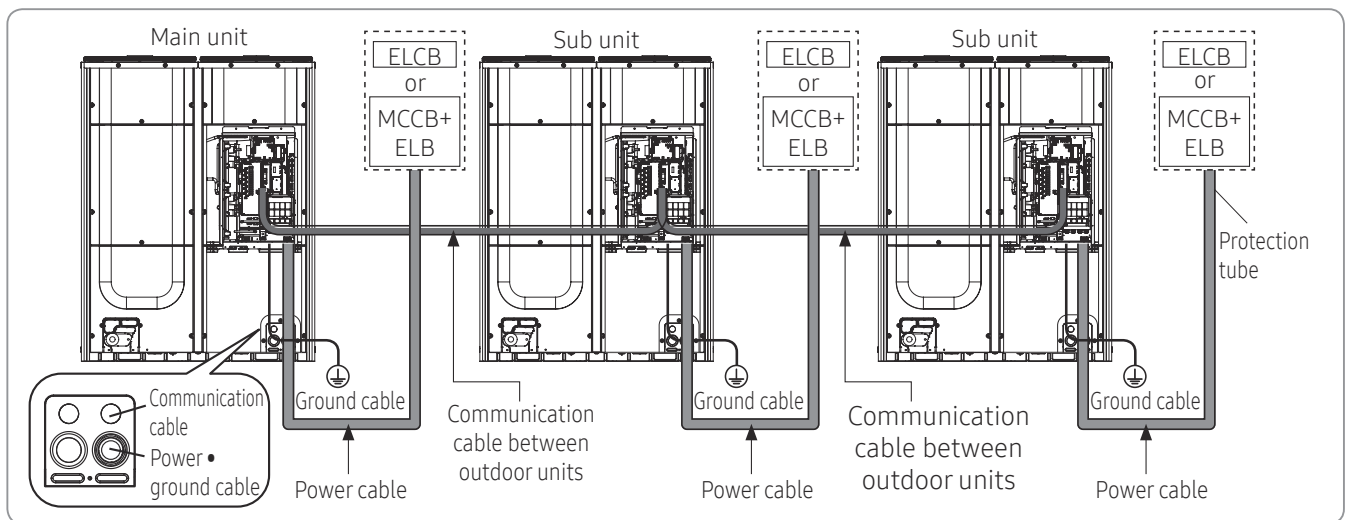
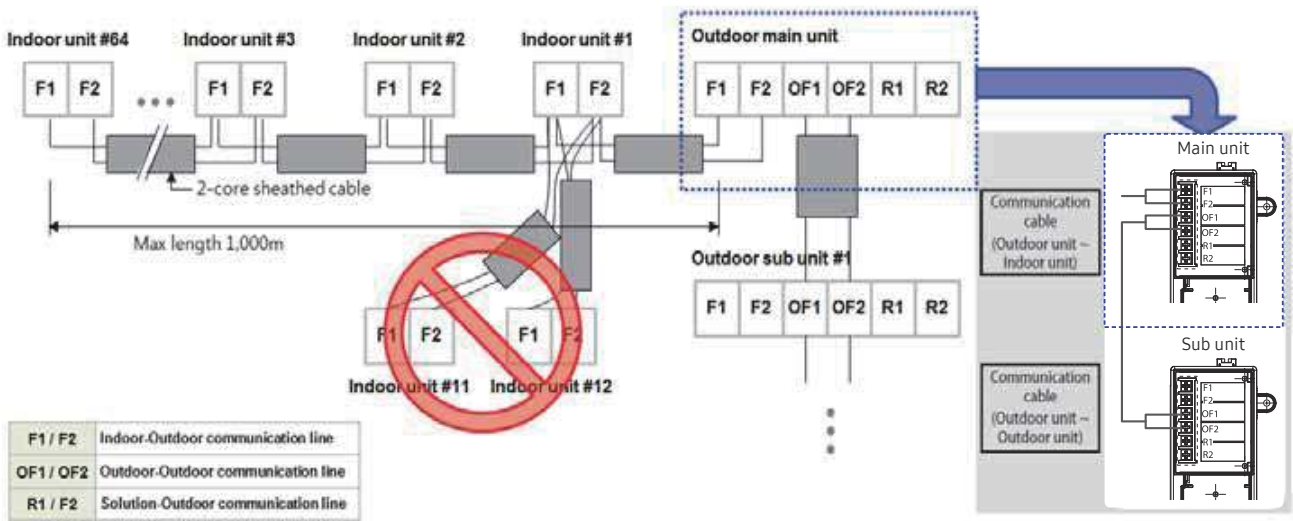
Name	Temper grade	Applicable conditions
Flexible PVC conduit	PVC	When the protection tube is installed indoor and not exposed to outside, because it is embedded in concrete structure
Class 1 flexible conduit	Galvanized steel sheet	When the protection tube is installed indoor but exposed to outside so 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

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.



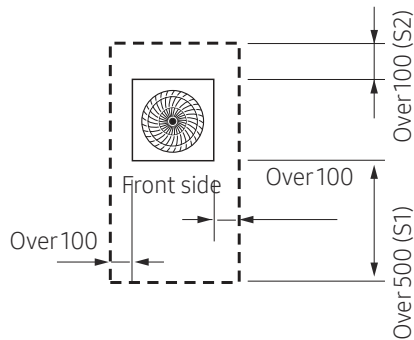
10. Installation

Space requirement for installation

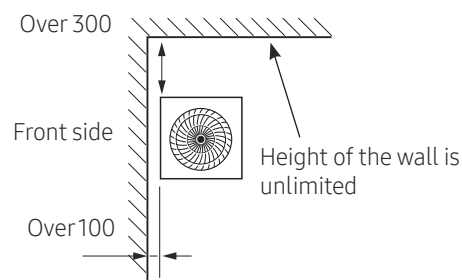
- ▶ Space requirement was decided based on following conditions; Cooling mode, outdoor temperature of 35 °C. Larger space is required if the outdoor temperature is higher than 35 °C or if the place is heated easily by quantity of solar radiation.
- ▶ When you secure installation space, consider path 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)



<Case 1>

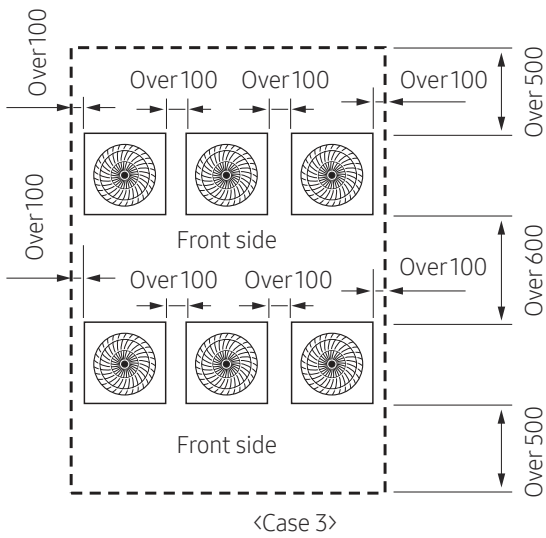
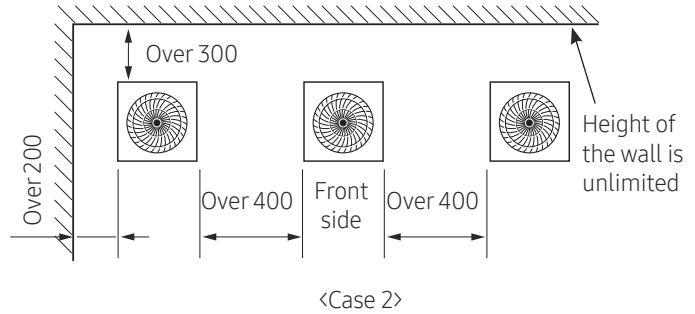
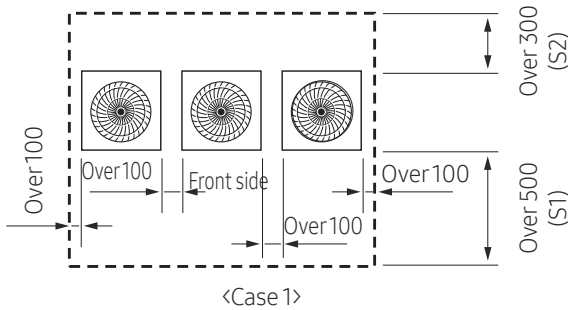


<Case 2>

10. Installation

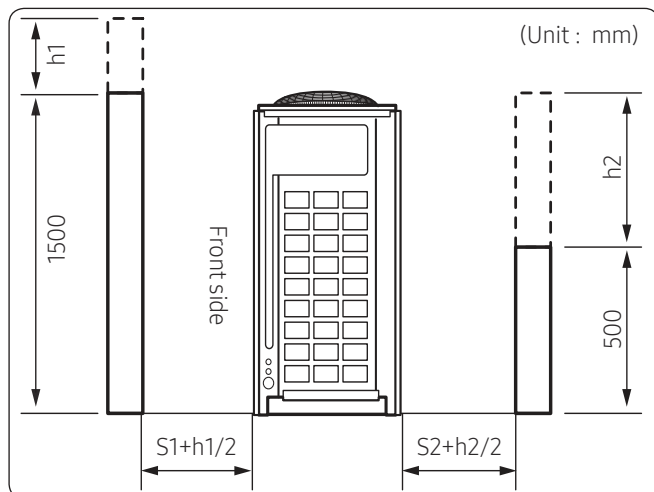
Space requirement for installation

Module installation



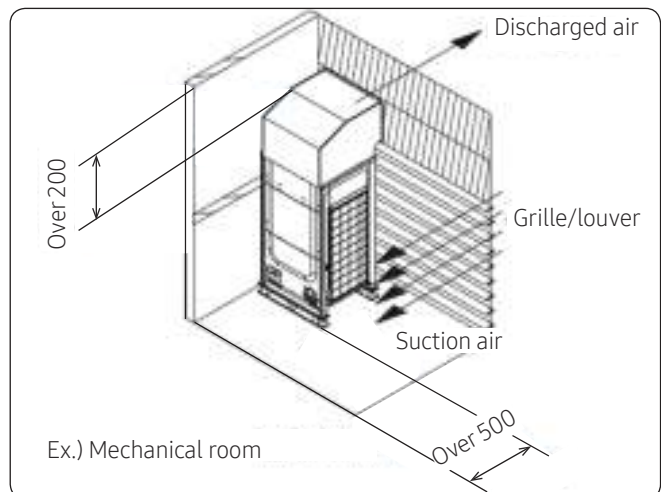
※ For <Case 1> or <Case 3>

- 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.



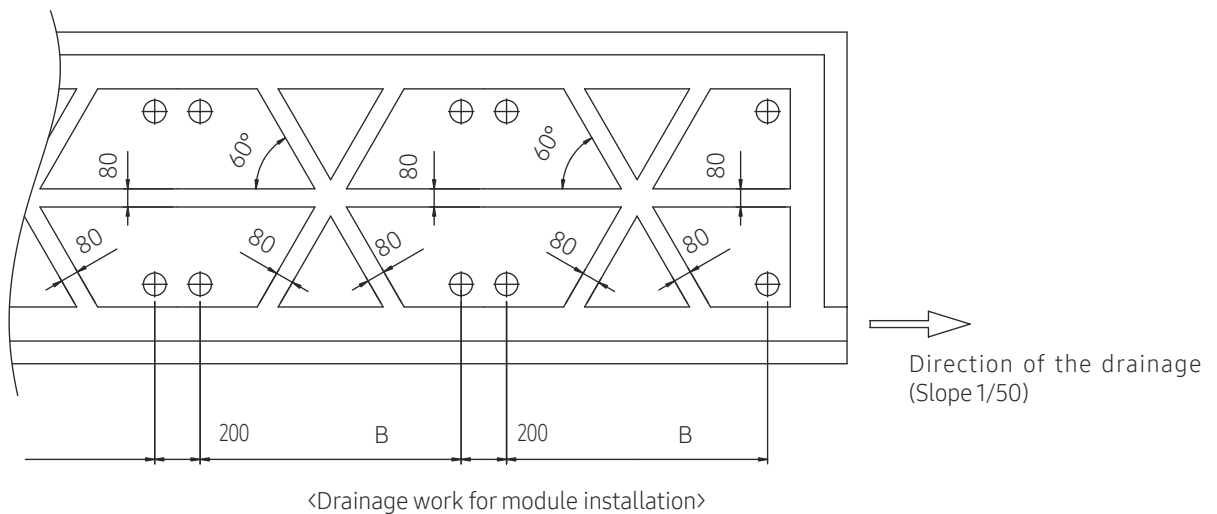
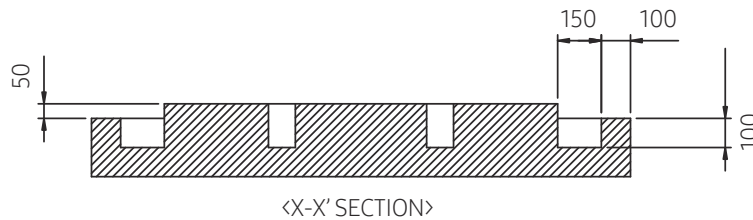
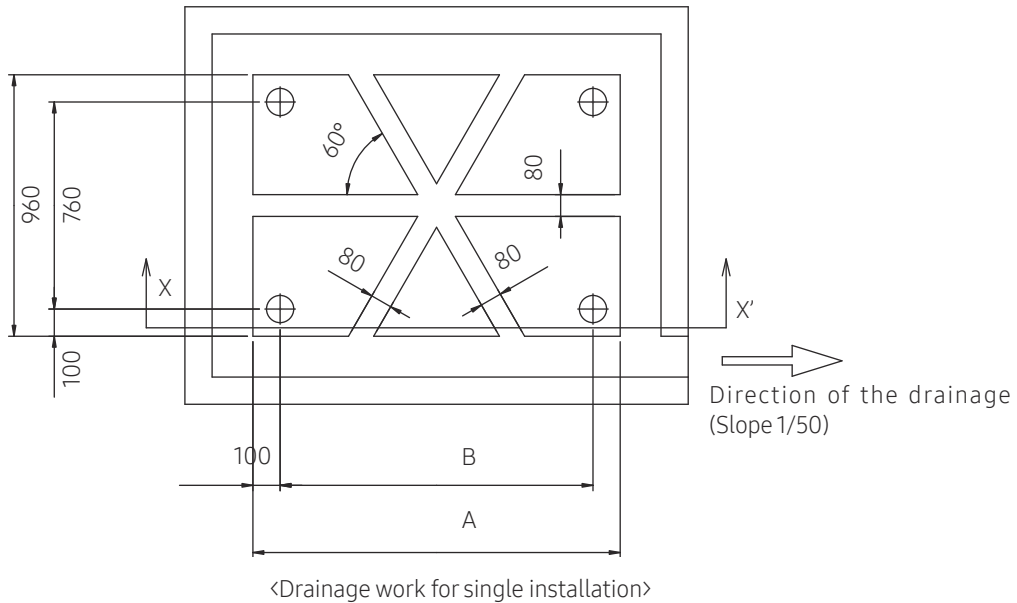
10. Installation

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)



10. Installation

Base construction and installation of the outdoor unit

(Unit : mm)

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



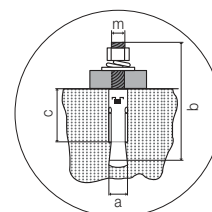
Cautions regarding on connecting the anchor bolt

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



- ▶ Anchor specification

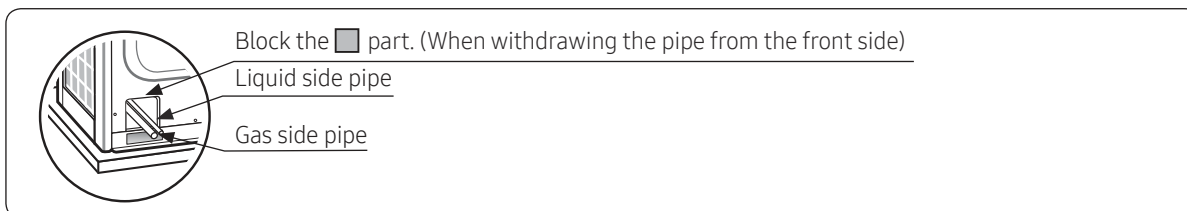
Size	Diameter of drill bit (a)	Anchor length (b)	Sleeve length (c)	Insert depth	Fastening torque
Ø10	14 mm	75 mm	40 mm	50 mm	30 N·m



- * 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.

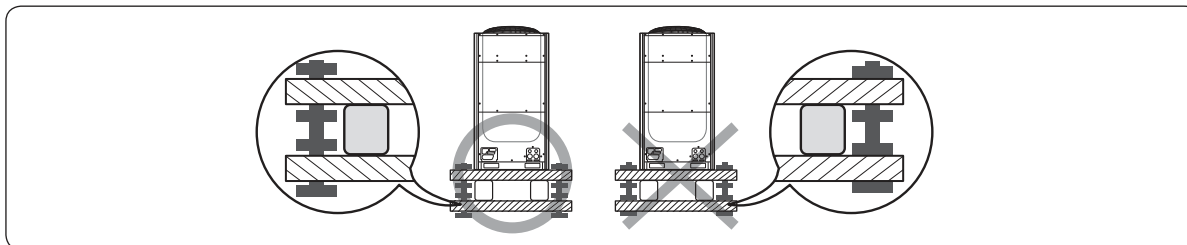
Cautions regarding on connecting the pipe

- ▶ 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.



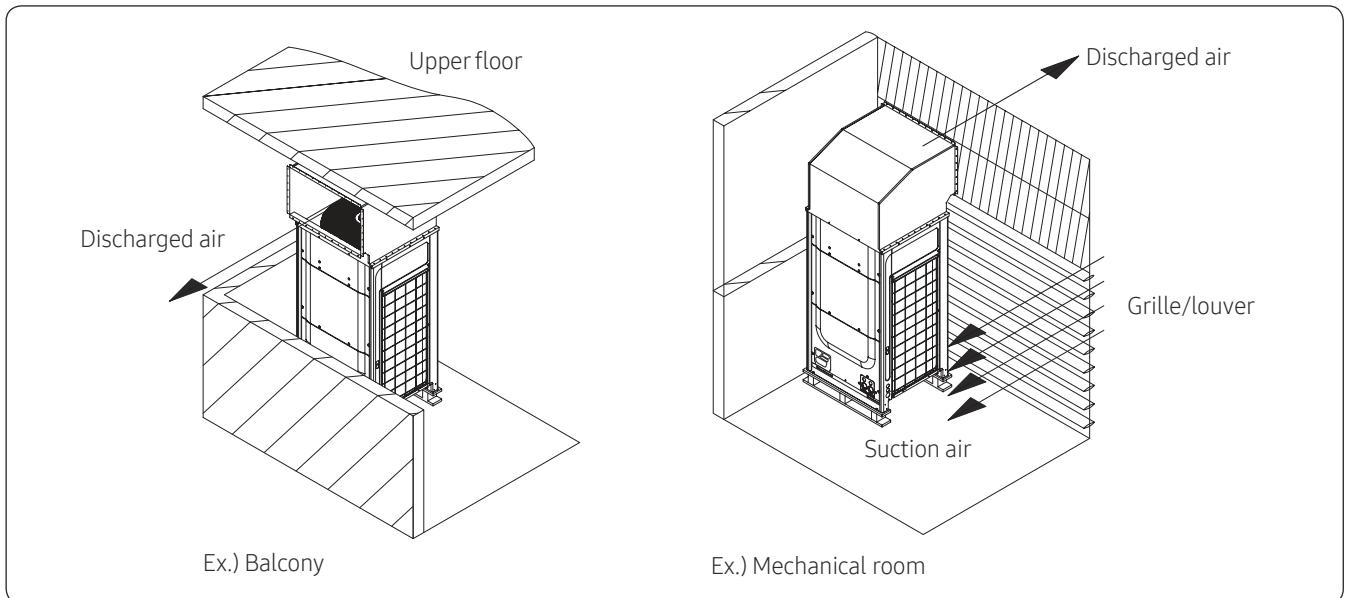
- ▶ After installing the anti-vibration frame, untighten the fixing part on the top and bottom part of the frame.

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.



10. Installation

Refrigerant pipe installation

Refrigerant pipe work

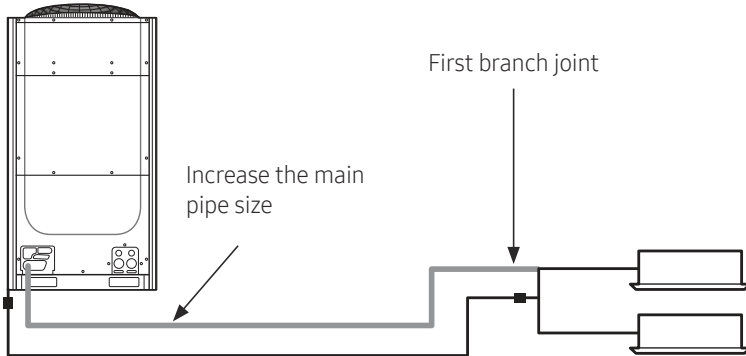
- ▶ The length of refrigerant pipe should be as short as possible and the height difference between an indoor and outdoor unit should be minimized.
- ▶ Piping work must be done within allowable piping length, height difference, and the allowable length after branching.
- ▶ The pressure of the R-410A 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	Air tightness test	Prevent oxidation within the pipe	
Welder		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.		

10. Installation

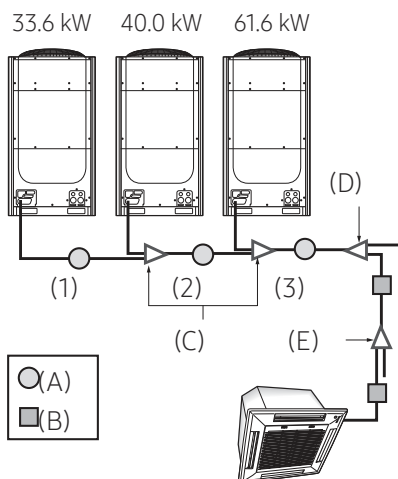
Refrigerant pipe installation

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.

H/P



Ex.) 135.2 kW

Capacity (kW)	No.	Pipe size (mm)	
		Liquid pipe	Gas pipe
33.6 kW	(1)	Ø 12.70	Ø 28.58
73.6 kW	(2)	Ø 19.05	Ø 34.92
135.2 kW	(3)	Ø 19.05	Ø 41.28

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) (Cooling)	*Maximum pipe length within 90m		*Maximum pipe length over 90m	
	Liquid pipe (mm)	gas pipe (mm)	Liquid pipe (mm)	gas pipe (mm)
22.4 kW	Ø 9.52	Ø 19.05	Ø 12.70	Ø 22.22
22.5 kW ~ 28.1 kW		Ø 22.22		Ø 25.40 ^{note1)}
28.2 kW ~ 33.6 kW	Ø 12.70	Ø 28.58	Ø 15.88	Ø 28.58
33.7 kW ~ 40.0 kW				Ø 31.75 ^{note2)}
40.1 kW ~ 45.0 kW				
45.1 kW ~ 50.4 kW	Ø 15.88	Ø 34.92	Ø 19.05	Ø 38.10 ^{note3)}
50.5 kW ~ 56.0 kW				
56.1 kW ~ 63.3 kW				
63.4 kW ~ 70.3 kW	Ø 19.05	Ø 41.28	Ø 22.22	Ø 41.28
70.4 kW ~ 98.4 kW				
98.5 kW ~ 135.2 kW				
135.3 kW ~ 169.0 kW	Ø 22.22	Ø 53.98	Ø 25.40 ^{note1)}	Ø 53.98
169.1 kW ~ 252.0 kW				

*Maximum pipe length : The pipe length between an outdoor unit and the farthest indoor unit.

Note1) If Ø 25.40 pipe is not available on site, use Ø 28.58 pipe.

Note2) If Ø 31.75 pipe is not available on site, use Ø 34.92 pipe.

Note3) If Ø 38.10 pipe is not available on site, use Ø 41.28 pipe

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)	Branch pipe length within 45m		Branch pipe length between 45~90m	
	Liquid pipe (mm)	Gas pipe (mm)	Liquid pipe (mm)	Gas pipe (mm)
15.0 kW and below	Ø 9.52	Ø 15.88	Ø 12.70	Ø 19.05
15.1 kW ~ 22.4 kW		Ø 19.05		Ø 22.22
22.5 kW ~ 28.1 kW		Ø 22.22		Ø 25.40 ^{note1)}
28.2 kW ~ 40.0 kW	Ø 12.70	Ø 28.58	Ø 15.88	Ø 28.58
40.1 kW ~ 45.0 kW				Ø 31.75 ^{note2)}
45.1 kW ~ 63.3 kW	Ø 15.88	Ø 34.92	Ø 19.05	Ø 38.10 ^{note3)}
63.4 kW ~ 70.3 kW				
70.4 kW ~ 98.4 kW	Ø 19.05	Ø 41.28	Ø 22.22	Ø 41.28
98.5 kW ~ 135.2 kW				
135.3 kW ~ 169.0 kW				
Over 169.0 kW	Ø 22.22	Ø 53.98	Ø 25.40 ^{note1)}	Ø 53.98

Note1) If Ø 25.40 pipe is not available on site, use Ø 28.58 pipe.

Note2) If Ø 31.75 pipe is not available on site, use Ø 34.92 pipe.

Note3) If Ø 38.10 pipe is not available on site, use Ø 41.28 pipe

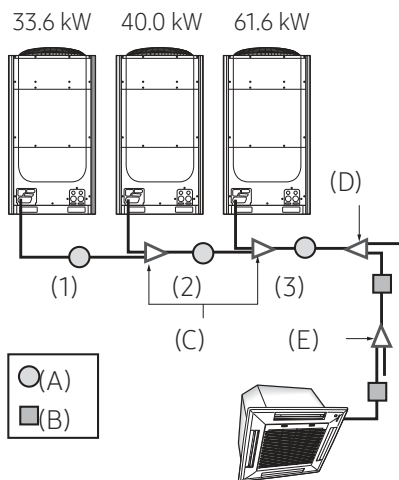
Size of the pipe between the branch joint and the indoor unit

Make a selection according to outdoor unit capacity.

Indoor unit capacity (kW)	Pipe size (O.D. mm)	
	Liquid pipe	Gas pipe
6.0 kW and below	Ø 6.35	Ø 12.70
6.1 kW ~ 16.0 kW	Ø 9.52	Ø 15.88
16.1 kW ~ 23.0 kW	Ø 9.52	Ø 19.05
Over 23.0 kW	Ø 9.52	Ø 22.22

10. Installation

Refrigerant pipe installation



Branch joint

- Branch joint between outdoor units (C)

Classification	Model name	Specification (kW)
Y-joint for outdoor unit (C)	MXJ-TA3819M	135.2 kW and below
	MXJ-TA4422M	Over 135.2 kW

- First branch joint (D)

Make a selection according to outdoor unit capacity.

Classification	Outdoor unit capacity (kW)	Model name of the branch joint
Y-joint (D)	40.0 kW and below	MXJ-YA2512M
	40.1 kW ~ 45.0 kW	MXJ-YA2812M
	45.1 kW ~ 67.2 kW	MXJ-YA2815M
	67.3 kW ~ 95.2 kW	MXJ-YA3419M
	95.3 kW ~ 135.2 kW	MXJ-YA4119M
	Over 135.2 kW	MXJ-YA4422M

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)
Y-joint (E)	MXJ-YA1509M	15.0 kW and below
	MXJ-YA2512M	15.1 kW ~ 40.0 kW
	MXJ-YA2812M	40.1 kW ~ 45.0 kW
	MXJ-YA2815M	45.1 kW ~ 70.3 kW
	MXJ-YA3419M	70.4 kW ~ 98.4 kW
	MXJ-YA4119M	98.5 kW ~ 135.2 kW
	MXJ-YA4422M	Over 135.2 kW

2) Distribution header

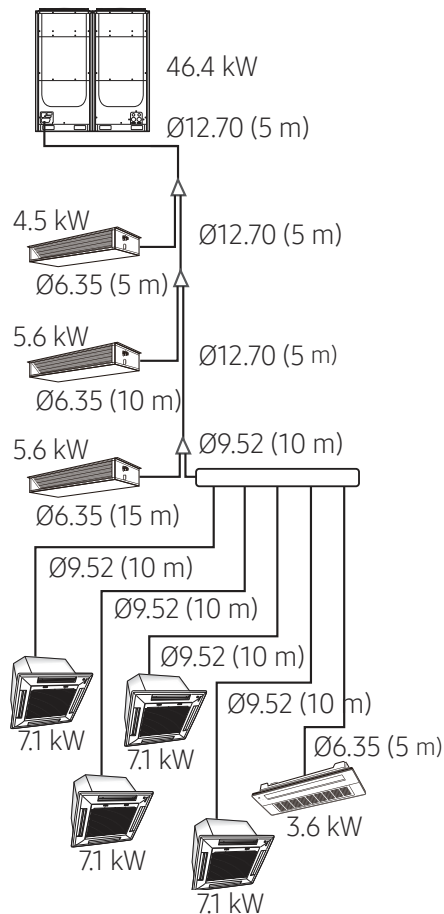
Classification	Model name	Specification (kW)
Distribution header (E)	MXJ-HA2512M	45.0 kW and below (for 4 rooms)
	MXJ-HA3115M	70.3 kW and below (for 8 rooms)
	MXJ-HA3819M	70.4 kW ~ 135.2 kW (for 8 rooms)

10. Installation

Refrigerant pipe installation

Additional refrigerant

H/P



Refrigerant pipe installation

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

Classification	AM080HXVFGH**	AM100HXVFGH**	AM120HXVFGH**	AM140HXVFGH**	AM160HXVFGH**
Basic amount	5.5	5.2	7.7	7.7	8.4

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

Size of liquid pipe	Ø 6.35	Ø 9.52	Ø 12.70	Ø 15.88	Ø 19.05	Ø 22.22	Ø 25.40	Ø 28.58
Additional amount (kg/m)	0.02	0.06	0.125	0.18	0.27	0.35	0.53	0.65

- For the indoor unit already connected to EEV kit, the additional refrigerant charging is 0.01kg per meter regardless of the pipe size.

10. Installation

Refrigerant pipe installation

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

(Unit : kg)

Model	1.5	1.7	2.2	2.8	3.2	3.6	4.5	5.6	6	7.1	8.2	9	9.3	11.2	12.8	14	16	18	22	22.4	28	32	50	500 CMH	1000 CMH
Slim 1way cassette (JSF) (AMXXFN1DEXX) (AMXXJN1DEXX)			0.25	0.25		0.25		0.32		0.32															
Interior 1way cassette (AMXXHN1DEXX)		0.15	0.15																						
2way cassette (AMXXFN2DEXX)								0.31		0.47															
4Way Cassette S (AMXXFN4DEXX)							0.45	0.45		0.45		0.45		0.57	0.69	0.69									
360 Cassette (AMXXKN4DEXX)							0.45	0.45		0.45		0.45		0.69	0.69	0.69									
Floor Standing Unit (AMXXNFDEXX)						0.22		0.32		0.32															
ERV plus (AMXXFNKDEXX)																								0.11	0.36
4way cassette S (600x600) (AMXXFNDEXX)	0.29		0.29	0.29		0.29	0.37	0.37	0.37																
Duct S (AMXXHNMPKXX) (AMXXHNMPK9XX)						0.22	0.22	0.22		0.22		0.31		0.38	0.38	0.38									
Duct S (AMXXHNMPK9XX)					0.31	0.31	0.38	0.38		0.38															
Duct S (AMXXHNHPKXX)														0.38	0.38	0.38									
Slim duct (AMXXFNLDEXX)	0.17	0.17	0.17			0.26	0.35	0.35		0.45		0.42		0.42	0.62	0.62									
Slim duct (with drain pump) (AMXXKNLDEXX)							0.35	0.35		0.45		0.42		0.42	0.62	0.62									
MSP duct (AMXXNMDEXX)			0.24	0.24		0.24	0.28	0.28		0.28		0.32		0.54	0.68	0.68	0.91								
MSP duct (with drain pump) (AMXXKNMDEXX)			0.24	0.24		0.24	0.28	0.28		0.28		0.32		0.54	0.68	0.68	0.91								
Home Duct (AMXXKNLDEH)	0.13	0.13	0.13			0.17																			
Ceiling (AMXXFNCDEXX / AMXXJNCDKXX)								0.39		0.39				0.56		0.95									
Console (AMXXNDEXX)			0.16	0.27		0.27	0.27	0.27																	
Neo forte (AMXXFNTDEXX)	0.24		0.24	0.24		0.24		0.36		0.36															
Neo forte (with EEV) (AMXXFNQDEXX)	0.34		0.34	0.34		0.34	0.51	0.51		0.51															
AR5000 (AMXXJNADKXX)	0.16		0.16	0.19		0.25	0.25	0.52		0.52	0.52														
AR5000 (with EEV) (AMXXJNVDKXX)	0.22		0.22	0.25		0.34	0.34	0.71		0.71	0.71														
New Boracay (AMXXKNTDEXX)	0.24		0.24	0.32		0.32	0.49	0.49		0.49															
New Boracay (with EEV) (AMXXKNQDEXX)	0.24		0.24	0.32		0.32	0.49	0.49		0.49															
MAX 4 (with EEV) (AMXXMNQDEXX)													0.49												
HSP duct (AMXXFNHDEXX)														0.68	0.68	0.68			1.18		1.18				
OAP duct (AMXXJNEPEXX)															0.68				1.18		1.18				
Big duct (AMXXJNHFKXX)																		1.15		1.15					
Hydro Unit HE (AMXXFNBDXX)																	0.6						0.7	1.2	
Hydro Unit HT (AMXXFNBFXX)																									
MCU (MCU-SXNEXXN)																									

► 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.

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 for HP 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	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	

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	Drawn
Ø 25.40	1.00	
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	



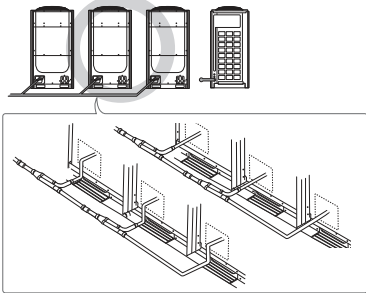
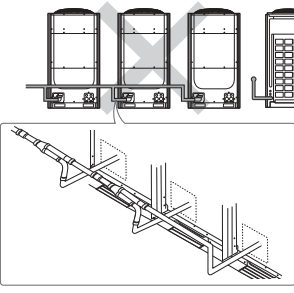
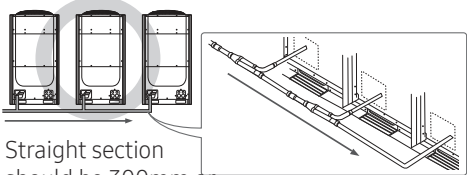
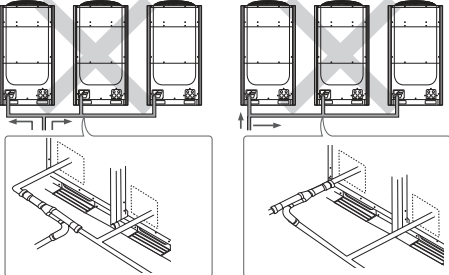
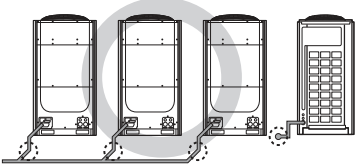
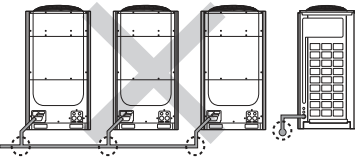
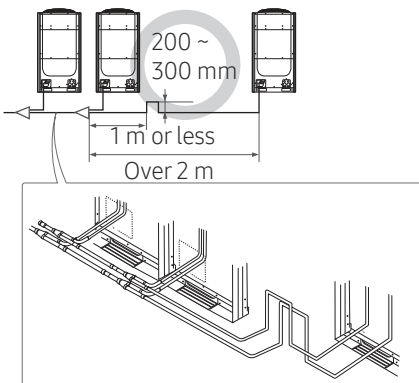
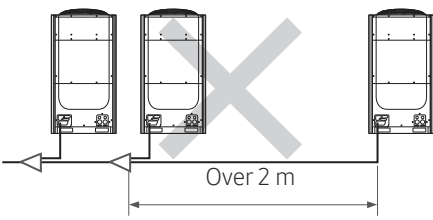
- For pipes larger than Ø 19.05, drawn type (C1220T-1/2H or C1220T-H) type copper pipe must be used. If an annealed type (C1220T-O) copper pipe is used, pipe may break due to its low pressure resistance and cause personal injury.

10. Installation

Refrigerant pipe installation

Pipe installation between the outdoor units

- ▶ You will need branch joints, which is an optional accessory, for connecting in between outdoor units in order to combine outdoor units in module.
- ✳ For optimal distribution of the refrigerant, you must use Y-joint as branch joint for connecting outdoor units. (Do not use T-joint)
- ▶ When you install the outdoor units in module, there is no restriction of installation order among outdoor units.
- ▶ Height of the connection pipe should be same or lower than the ones connected to the outdoor units.
- ▶ Check the changes in comparison with the DVM II, 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>		
<p>When the piping length between outdoor unit and the branch joint exceeds 2m, install a vertical trap as show in the figure.</p>		

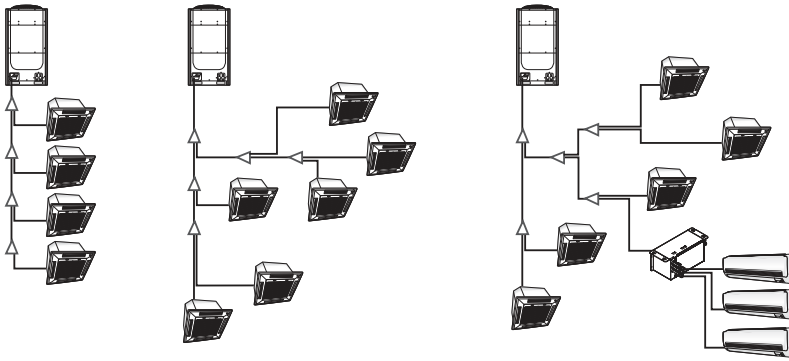
10. Installation

Refrigerant pipe installation

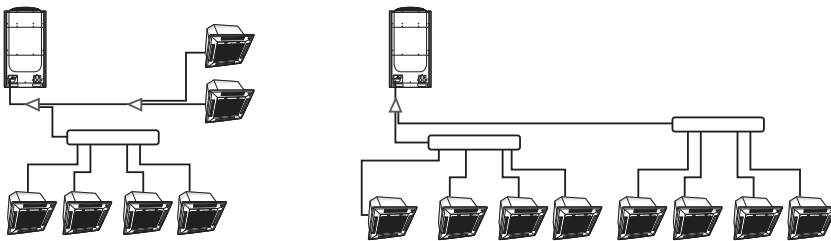
Examples of refrigerant pipe installation

H/P

1. Using Y-joint



2. Using distribution header



10. Installation

Refrigerant pipe installation

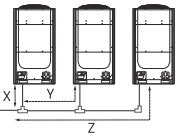
Allowable length of the refrigerant pipe and the installation examples

H/P

Classification	Single Installation	Module installation
Installing only with Y-joint	<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>

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	110/40m <small>Note 2)</small>		$H1 \leq 110/40\text{m}$		
	Indoor unit ~ Indoor unit	50m or less		$H2 \leq 50\text{m}$		
		But, when AM****NQDEH**** / AM****JNVDKH**** is installed, H2 is 15 m or less.				
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		-		

10. Installation

Additional refrigerant

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	3 indoor	
			MXD-E24K300A		
			MXD-E32K224A		
			MXD-E32K300A		

* Please refer to the EEV Kit manual.

Note 1) Required condition

Classification	Condition	Example
First branch joint ~ Farthest Indoor unit	$45\text{m} \leq b+c+d+e+f+g+p \leq 90\text{m}$: 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 40m, 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, decide if you need to install PDM kit) Model name of the PDM kit: MXD-A38K2A, MXD-A12K2A It must be installed to the high-pressure pipe of the outdoor unit.

- The appropriate PDM kit corresponding to the capacity of the outdoor unit must be installed.
- In case of the combination of models higher than 24HP, PDM KIT must be installed to the high-pressure pipe of each outdoor unit.





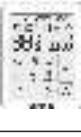






Ex) In case of 26HP, 2 PDM KIT units of MXD-A38K2A (10HP) and MXD-A12K2A (16HP) must be installed.

- Make sure to install after checking the appropriate model, confirming the PDM KIT specifications(pipe diameter, capillary tube length).

KIT model name	MXD-A38K2A	MXD-A12K2A	MXD-A58K2A
SET application model name	AM080**~120**	AM140**~160**	AM180**~240**






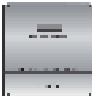

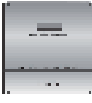
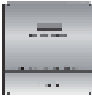

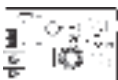
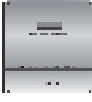
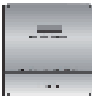
11. Accessory

Controller

Classification	Product	Model	Image	Remark	Using
Individual Control System	Wireless Remote Controller	MR-EH00			DVM, CAC
	Wireless Remote Controller	AR-KH00E		360 CST Only	DVM, CAC
	Wired Remote Controller	MWR-WE11N			DVM, CAC
	Wired Remote Controller - Simple Type	MWR-SH00N			DVM, CAC
	Wired Remote Controller - Touch Simple Type	MWR-SH10N			DVM, CAC
	ERV Wired Remote Controller	MWR-VH12N		ERV Only	DVM, CAC
	Wired Remote Controller	MWR-WW00N		EHS Only	EHS
	Receiver KIT	MRK-A10N			DVM, CAC
	Zone Controller	MWR-ZS00N		Master controller + Damper controller	DVM, CAC
	Zone Controller	MWR-ZS10N		Slave controller	DVM, CAC
	Zone Controller	MRW-TS		External room sensor	DVM, CAC






11. Accessory

Controller

Classification	Product	Model	Image	Remark	Using
Centralized Control System	Onoff Controller	MCM-A202DN			DVM, CAC
	Touch Centralized Controller	MCM-A300N			DVM, CAC
	WIFI KIT	MIM-H03N			DVM, CAC
	Interface Module	MIM-N01			DVM, CAC
	ERV Interface Module	MIM-N10			DVM, CAC
Integrated management System	DMS2.5	MIM-D01AN			DVM, CAC
	S-NET3	MST-P3P			DVM, CAC
Gate Way	BACnet Gateway	MIM-B17BN			DVM, CAC
	Lonworks Gateway	MIM-B18BN			DVM, CAC
	External Contact Interface Module	MIM-B14			DVM, CAC
	MTFC (Multi Tenant Function Controller)	MCM-C210N			DVM
	SIM (Signal Interface Module)	MIM-B12N			DVM, CAC
	PIM (Pulse Interface Module)	MIM-B16N			DVM, CAC

11. Accessory

Controller

Classification	Product	Model	Image	Remark	Using
Installation /Test run Solution	S-Converter	MIM-C02N			DVM, CAC
Others	External Room Sensor	MRW-TA			DVM, CAC
	Operation Mode Selection Switch	MCM-C200			DVM
	Module Controller	MCM-A00N		CHILLER Only	CHILLER
	FCU Interface Module	MIM-F10N		CHILLER Only	CHILLER

NOTE

- In case you want more information about the accessories, please refer to the control and accessories TDB on pvi.Samsung.com site.

11. Accessory

Controller & Control Accessory Compatibility

	Item	NASA (DVM S)	Non-NASA (DVM +3/+4)	Remark
Individual Control System	Wireless Remote Controller	MR-EH00	MR-EH00	DVM, CAC
	Wireless Remote Controller	AR-KH00E	AR-KH00E	DVM, CAC (360 CST)
	Wired Remote Controller	MWR-WE11N	MWR-WE10	DVM, CAC
	Wired Remote Controller - Simple Type	MWR-SH00N	MWR-SH00	DVM, CAC
	Wired Remote Controller - Touch Simple Type	MWR-SH10N	-	DVM, CAC
	ERV Wired Remote Controller	MWR-VH12N	-	DVM, CAC (ERV)
	Wired Remote Controller	MWR-WW00N	MWR-WW00	EHS
	Receiver KIT	MRK-A10N	-	DVM, CAC
	Zone Controller	MWR-ZS00N	MWR-ZS00	DVM, CAC
	Zone Controller	MWR-ZS10N	MWR-ZS10	DVM, CAC
	Zone Controller	MRW-TS	MRW-TS	DVM, CAC
Centralized Control System	Onoff Controller	MCM-A202DN	MCM-A202D	DVM, CAC
	Touch Centralized Controller	MCM-A300N	-	DVM, CAC
	WIFI KIT	MIM-H03N	MIM-H03	DVM, CAC
	Interface Module	MIM-N01	MIM-N01	DVM, CAC
	ERV Interface Module	MIM-N10	MIM-N10	DVM, CAC
Integrated management System	DMS2.5	MIM-D01AN	MIM-D00A	DVM, CAC
	S-NET3	MST-P3P	MST-P3P	DVM, CAC
Gate Way	BACnet Gateway	MIM-B17BN	MIM-B17	DVM, CAC
	Lonworks Gateway	MIM-B18BN	MIM-B18	DVM, CAC
	External Contact Interface Module	MIM-B14	MIM-B14	DVM, CAC
	MTFC (Multi Tenant Function Controller)	MCM-C210N	-	
	SIM (Signal Interface Module)	MIM-B12N	MIM-B12	DVM, CAC
	PIM (Pulse Interface Module)	MIM-B16N	MIM-B16	DVM, CAC
	Module Controller	MCM-A00N	-	CHILLER ONLY
	FCU KIT	MIM-F00N	-	CHILLER ONLY
	FCU Interface Module	MIM-F10N	-	CHILLER ONLY
Installation / Test run Solution	S-Converter	MIM-C02N	MIM-C02	DVM, CAC
Others	External Room Sensor	MRW-TA	MRW-TA	DVM, CAC
	Operation Mode Selection Switch	MCM-C200	MCM-C200	DVM

NOTE

- In case you want more information about the accessories, please refer to the control and accessories TDB on pvi.Samsung.com site.

11. Accessory

Piping

Product	Image	Model	Remark
Y-Joint		MXJ-YA1509M	15.0 kW and below
		MXJ-YA2512M	Over 15.0 kW ~ 40.0 kW and below
		MXJ-YA2812M	Over 40.0 kW ~ 45.0 kW and below
		MXJ-YA2815M	Over 45.0 kW ~ 70.3 kW and below
		MXJ-YA3419M	Over 70.3 kW ~ 98.4 kW and below
		MXJ-YA4119M	Over 98.4 kW ~ 135.2 kW and below
		MXJ-YA4422M	Over 135.2 kW
Y-Joint (Only H/R)		MXJ-YA1500M	22.4 kW and below
		MXJ-YA2500M	Over 22.4 kW ~ 70.3 kW and below
		MXJ-YA3100M	Over 70.3 kW ~ 135.2 kW and below
		MXJ-YA3800M	Over 135.2 kW
Y-Joint Outdoor Unit		MXJ-TA3419M	135.2 kW and below
		MXJ-TA4122M	140.2 kW and Over
Y-Joint (Only H/R) Outdoor Unit		MXJ-TA3100M	135.2 kW and below
		MXJ-TA3800M	140.2 kW and Over
Distribution Header		MXJ-HA2512M	45.0 kW and below (for 4 rooms)
		MXJ-HA3115M	70.3 kW and below (for 8 rooms)
		MXJ-HA3819M	Over 70.3 kW ~ 135.2 kW and below (for 8 rooms)
MCU		MCU-S6NEK2N	6 ports, max 61.6kW (~16kW/1port)
		MCU-S4NEK3N	4 ports, max 61.6kW (~16kW/1port)
		MCU-S2NEK2N	2 ports, max 32.0kW (~16kW/1port)
		MCU-S1NEK1N	1 port, max 16.0kW (~16kW/1port)
EEV KIT		MEV-E24SA	1 Indoor
		MEV-E32SA	
		MXD-E24K132A	2 Indoor
		MXD-E24K200A	
		MXD-E32K200A	
		MXD-E24K232A	3 Indoor
		MXD-E24K300A	
MXD-E32K224A			
MXD-E32K300A			
PDM KIT		MXD-A38K2A	8~12 HP
		MXD-A12K2A	14~16 HP
		MXD-A58K2A	18~26 HP

NOTE

- In case you want more information about the accessories, please refer to the control and accessories TDB on pvi.Samsung.com site.



11. Accessory

Indoor unit

Product	Image	Model	Remark
Panel		PC1NUSMAN	1Way CST (JSF-1)
		PC1NUPMAN	1Way CST (JSF-1) (Z-sliding)
		PC1MWSKAN	1Way CST (JSF-0)
		PC1NWSMAN	1Way CST (JSF-1)
		PC1BWSMAN	1Way CST (JSF-2)
		PC2NUSMEN	2Way Cassette
		PC4SUSMAN	4Way Cassette S (600x600) (Waffle)
		PC4SUSMEN	4Way Cassette S (600x600) (Classic)
		PC4NUSKAN	4way Cassette S (Waffle)
		PC4NUSKEN	4way Cassette S (Classic)
		PC4NBSKAN	4way Cassette S (Waffle, Black)
		PC4NUDMAN	360 CST Square (White)
		PC4NUNMAN	360 CST Circular (White)
		PC4NBDMAN	360 CST Square (Black)
	PC4NBNMAN	360 CST Circular (Black)	
S-Plasma Ion KIT		MSD-CAN1	[Option] 1Way, 4Way, 4Way (600x600), 360, Big Ceiling [Include] Console
		MSD-EAN1	[Option] Duct S, Big Duct, ERV, ERV Plus
Motion detect Sensor		MCR-SMA	4Way Cassette S (600x600)

11. Accessory

Indoor unit

Product	Image	Model	Remark			
ERV CO2 Sensor		MOS-C1	ERV, ERV PLUS			
External room sensor		MRW-TA	Cassette, Wall-mount, Ceiling, Duct, Console			
Drain Pump		MDP-N047SNC0D	OAP Duct (14.0 kW)			
		MDP-N047SNC1D	HSP Duct (22.0 / 28.0 kW) OAP Duct (22.4 / 28.0 kW)			
		MDP-M075SGU1D	MSP-0 / 1 Duct (9.2 / 11.2 kW)			
		MDP-M075SGU2D	MSP-2 Duct (12.8 / 14.0 kW) HSP Duct (11.2 / 12.8 / 14.0 kW)			
		MDP-M075SGU3D	MSP-S Duct (5.6 / 7.1 kW)			
		MDP-E075SEE3D	Slim Duct (2.0~14.0 kW)			
		MDP-G075SP	Duct S (External, All Capacities) BIG Duct			
		MDP-G075SQ	Duct S (Internal, 3.5 kW~14 kW) BIG Duct			
AHU KIT		MXD-K025AN	7.0 kW~8.75 kW			
		MXD-K050AN	14.0 kW~17.5 kW			
		MXD-K075AN	21.0 kW~26.25 kW			
		MXD-K100AN	28.0 kW~35.0 kW			
		MCM-D201N	28kW~35kW MDX-A64K100E X 1 EA	56kW~70kW MDX-A64K100E X 2 EA	84kW~105kW MDX-A64K100E X 3 EA	112kW~140kW MDX-A64K100E X 4 EA

NOTE

- In case you want more information about the accessories, please refer to the control and accessories TDB on pvi.Samsung.com site.

11. Accessory

Indoor unit's Accessory Compatibility

Product	Model	Remark	1way			2way	4way	360	Mini 4way	Slim duct	MSP Duct				Duct-S	Big Duct	HSP Duct	OAP Duct		RAC	Ceiling	B-Ceiling	Console	PAC	Floor Standing	ERV Plus	AHU		
			JSF-0	JSF-1	JSF-2						MSP-S	MSP-0	MSP-1	MSP-2				5HP	8,10HP										
Panel	PC4NUDMAN	Ceiling																											
	PC4NBDMAN	Ceiling (Black)																											
	PC4NUNMAN	Open																											
	PC4NBNMAN	Open (Black)																											
	PC4NUSKAN	Waffle																											
	PC4NBSKAN	Waffle (Black)																											
	PC4NUSKEN	Classic																											
	PC4SUSMAN	Waffle																											
	PC4SUSMEN	Classic																											
	PC1NUSMAN	Stripe																											
	PC1NUPMAN	Z-Slide																											
	PC1MWSKAN	Fluid																											
	PC1NWSMAN																												
	PC1BWSMAN																												
PC2NUSMEN	Stripe																												
DRAIN PUMP	MDP-N0475NCD0	-																											
	MDP-N0475NCD1	-																											
	MDP-M075SSGU1D	-																											
	MDP-M075SSGU2D	-																											
	MDP-M075SSGU3D	-																											
	MDP-E075SEE3D	-																											
	MDP-G075SP	External, All Capacities																											
	MDP-G075SQ	Internal																											
S-Plasma Ion KIT	MSD-CAN1	-																											
	MSD-EAN1	-																											
Motion detect Sensor	MCR-SMA	-																											
ERV CO2 Sensor	MOS-C1	-																											
EEV KITS	MEV-E**SA	1 Indoor																											
	MXD-E**K***A	2,3 Indoor																											
MCU-KIT	MCU-S6NEK2N	6 ports, max 61.6kW																											
	MCU-S4NEK3N	4 ports, max 61.6kW																											
	MCU-S2NEK2N	2 ports, max 32.0kW																											
	MCU-S1NEK1N	1 port, max 16.0kW																											
AHU-KIT	MXD-K025AN	only for 2.5Hp's AHU																											
	MXD-K050AN	only for 5Hp's AHU																											
	MXD-K075AN	only for 7.5Hp's AHU																											
	MXD-K100AN	only for 10Hp's AHU																											
	MCM-D201N	only for 10~40Hp's AHU																											

NOTE

- In case you want to know more information the accessories, please refer to the control and accessories TDB on pvi.samsung.com site

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