SAMSUNG

VRF Technical Data Book

DVM S Water for Europe (R410A, 50/60Hz, HP/HR)



Model : Premium energy efficiency Type
Premium compact type

History

Version	Modification	Date	Remark
Ver. 1.0	Release DVM S Water for Europe TDB	'17. 06. 23	
Ver. 1.01	Modify the Accessory Compatibility table for MCU kit(P67)	'17. 09. 13	

Nomenclature

Outdoor units

Model name

AM	080	M	X	W	A	N	R	/	EU
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		(Buyer)

(1) Classification

AM	DVM

(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) Feature1

W	DVM WATER

(6) Feature2

A	Standard + General Temp.+ Module

(7) Rating Voltage

N	3Ø, 380~415V, 50/60Hz
G	3Ø, 380~415V, 50Hz

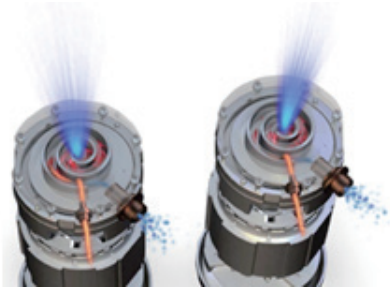
(8) Mode

R	Heat Recovery
H	Heat Pump

Features & Benefits

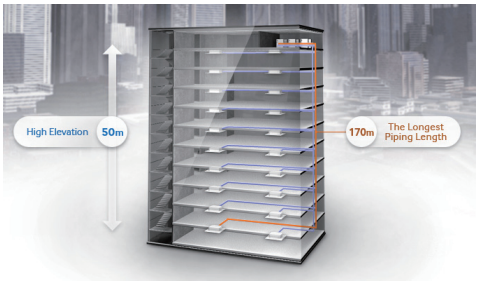
More efficient, more eco-friendly

The DVM S WATER air conditioning system saves money and the environment, while providing a powerful performance. Its innovative Dual Inverter Compressor with a high efficiency Vapor Injection System ensures powerful, rapid cooling and heating with minimum energy consumption, so it's very eco-friendly. A Plate Heat Exchanger also improves the heat exchange efficiency and ensures stable cooling and heating performances.



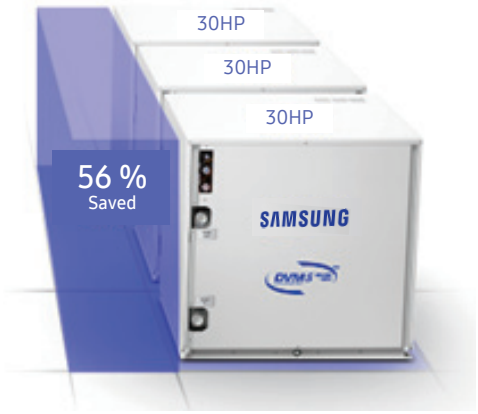
Flexible installation almost anywhere

The DVM S WATER air conditioning system can be installed almost anywhere, regardless of its location or distance from the building. It has a maximum piping length of up to 170 meters (558 feet) between the outdoor and indoor units, while still ensuring complete reliability. It can also reach up to a height of 50 meters (164 feet), which is the equivalent of 10 stories.



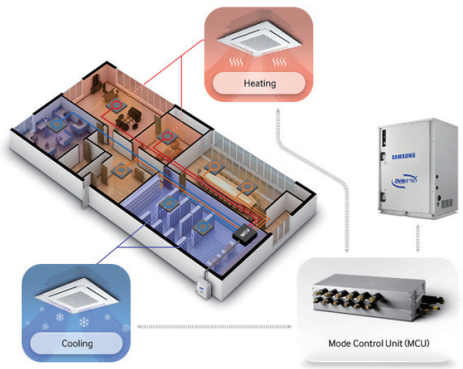
Lower installation costs, great capacity

The DVM S WATER air conditioning system is much more economical to install as it has a small footprint and lightweight design, but a large 30 horsepower (HP) capacity. So instead of installing two 10HP units you only need one 30HP Samsung unit – using 56% less space and significantly reducing the costs of valves, fittings and gauges. You can also combine up to three units to create a total capacity of 90HP.



Independently cool and heat

With the DVM S WATER air conditioning system's optional Mode Control Unit (MCU) you can independently cool and heat different spaces at the same time. Instead of just heating or cooling all spaces at the same time, with the MCU each indoor unit can be operated separately, so you can simultaneously heat some rooms or areas of the building, while cooling others.



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1. Line-up

1) Outdoor units combination Table

Premium energy efficiency type

System Model			Capacity (HP)			
Capa.(HP)	Model	No. of Modules	8	10	12	20
8	AM080MXWANR	1	1			
10	AM100MXWANR	1		1		
12	AM120MXWANR	1			1	
16	AM160MXWANR2	2	2			
18	AM180MXWANR2	2	1	1		
20	AM200MXWANR	1				1
22	AM220MXWANR2	2		1	1	
24	AM240MXWANR2	2			2	
26	AM260MXWANR2	3	2	1		
28	AM280MXWANR2	2	1			1
30	AM300MXWANR2	2		1		1
32	AM320MXWANR2	2			1	1
34	AM340MXWANR2	3		1	2	
36	AM360MXWANR2	3	2			1
38	AM380MXWANR2	3	1	1		1
40	AM400MXWANR2	2				2
42	AM420MXWANR2	3		1	1	1
44	AM440MXWANR2	3			2	1
48	AM480MXWANR2	3	1			2
50	AM500MXWANR2	3		1		2
52	AM520MXWANR2	3			1	2
60	AM600MXWANR2	3				3

1. Line-up

1) Outdoor units combination Table

Premium compact type

System Model			Capacity (HP)				
Capa.(HP)	Model	No. of Modules	8	10	12	20	30
30	AM300KXWANR	1					1
38	AM380MXWANR1	2	1				1
40	AM400MXWANR1	2		1			1
42	AM420MXWANR1	2			1		1
46	AM460MXWANR1	3	2				1
48	AM480MXWANR1	3	1	1			1
50	AM500MXWANR1	2				1	1
52	AM520MXWANR1	3		1	1		1
54	AM540MXWANR1	3			2		1
58	AM580MXWANR1	3	1			1	1
60	AM600MXWANR1	2					2
62	AM620MXWANR1	3			1	1	1
68	AM680MXWANR1	3	1				2
70	AM700MXWANR1	3		1			2
80	AM800MXWANR1	3				1	2
90	AM900MXWANR1	3					3

NOTE

- Make sure to use an indoor unit that is compatible with DVM S WATER-GEO.
- 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 capacityof 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 × ∑(Outdoor unit capacity) ≤ Total capacity of the connected indoor units ≤ 1.3 × ∑(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.
- Minimum capacity of the indoor unit is 1.7 kW.
- Installation combination must be complied when composing outdoor unit combination.
- Sum of total amout of additional refrigerant and the basic amount of refrigerant should not exceed 100kg (220lb). If the refrigerant exceeds 100kg (220lb), separate the module so that the weight of the refrigerant doesn't exceed 100kg.

2) External appearance (outdoor unit)

Capacity (HP)	8	10	12	20	30
Type	HR / HP				
Model					

1. Line-up

3) Indoor units

Model	Capacity (kW)								
	1.7	2.2	2.8	3.6	4.5	5.6	6.0	7.1	9.0
Slim 1way cassette (JSF)									
2way cassette									
Global 4way cassette									
4way CST (600 X 600)									
360 CST									
Floor Standing Unit									
Slim duct									
MSP duct									
HSP duct									
Ceiling									
Console									
Neo forte									
Neo forte (with EEV)									
Hydro unit / HE									
Hydro unit / HT									
ERV plus									

1. Line-up

3) Indoor units

Model	Capacity (kW)							
	11.2	12.8	14.0	22.0	28.0	44.8	500CMH	1000CMH
Slim 1way cassette(JSF)								
2way cassette								
Global 4way cassette								
4way CST (600 X 600)								
360 CST								
Floor Standing Unit								
Slim duct								
MSP duct								
HSP duct								
Ceiling								
Console								
Neo forte								
Neo forte (with EEV)								
Hydro unit / HE								
Hydro unit / HT								
ERV plus								

2. Specification

Premium energy efficiency Type

Type					DVM S Water	DVM S Water	DVM S Water	DVM S Water
Model Name					AM080MXWA✱✱	AM100MXWA✱✱	AM120MXWA✱✱	AM160MXWA✱✱
	Outdoor unit module 1				AM080MXWA✱✱	AM100MXWA✱✱	AM120MXWA✱✱	AM080MXWA✱✱
	Outdoor unit module 2				-	-	-	AM080MXWA✱✱
	Outdoor unit module 3				-	-	-	-
	Outdoor unit module 4				-	-	-	-
Power Supply				Ø, #, V, Hz	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	8	10	12	16
	Ton			Ton	6.37	7.96	9.55	12.74
	Capacity	Cooling		kW	22.4	28.0	33.6	44.8
				Btu/h	76,400	95,500	114,600	152,900
		Heating [2]*		kW	25.2	31.5	37.8	50.4
				Btu/h	86,000	107,500	129,000	172,000
		Heating [4]*		kW	21.6	25.8	31.1	-
				Btu/h	73,700	88,000	106,500	-
Maximum number of connectable indoor units				ea	14	18	22	29
	Total capacity of the connected Indoor Units	Min.		kW	11.2	14.0	16.8	22.4
		Max.		kW	29.1	36.4	43.7	58.2
Power	Power Input	Cooling [1]*		kW	3.67	4.87	6	7.34
		Heating [2]*			3.97	5.04	6.25	7.94
		Heating [4]*			4.45	5.43	6.76	-
	Current Input	Cooling [1]*		A	5.9	7.8	9.6	12.4
		Heating [2]*			6.4	8.1	10.0	13.2
	Current	Minimum Ssc value		MVA	3.9	3.9	4.8	7.8
		MCA		A	16.1	16.1	20.0	31.8
		MFA		A	20.0	20.0	25.0	40.0
COP	Cooling [1]*			W/W	6.10	5.75	5.60	6.10
	Heating [2]*			W/W	6.35	6.25	6.05	6.35
	Heating [4]*			W/W	4.85	4.75	4.6	-
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(5.18) x 1	(5.18) x 1	(6.39) x 1	(5.18) x 2
	Model Name			-	DS-GB052FAVB x 1	DS-GB052FAVB x 1	DS-GB066FAVB x 1	DS-GB052FAVB x 2
	Oil	Type		-	PVE	PVE	PVE	PVE
		Initial Charge		cc	1,100	1,100	1,100	1,100 x 2
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT1-1/4	PT1-1/4	PT1-1/4	PT1-1/4 x 2
	Pressure Drop			kPa	22.0	30.0	43.0	22 .0 x 2
	Water Flow Rate			LPM	80.0	96.0	114.0	80.0 x 2
	Max. Pressure			Mpa	1.96	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	9.52	9.52	12.7	12.7
				Ø, inch	3/8"	3/8"	1/2"	1/2"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	19.05	22.22	28.58	28.58
				Ø, inch	3/4"	7/8"	1 1/8"	1 1/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	15.88	19.05	19.05	22.22
				Ø, inch	5/8"	3/4"	3/4"	7/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90	90
	Total piping length	System	Actual	m	500	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50	50
			Indoor unit in highest position	m	40	40	40	40
		IDU-IDU	Max.	m	50	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R410A	R410A	R410A	R410A
	Factory Charging			kg	5.5	5.8	6.0	11.0
Sound [3]*	Sound Pressure		Cooling	dB(A)	45	47	47	49
			Heating		46	49	50	50
	Sound Power				60	62	67	64
External Dimension	Net Weight			kg	160	160	160	160 x 2
	Shipping Weight			kg	167	167	167	167 x 2
	Net Dimensions (WxHxD)			mm	770 x 1,000 x 545	770 x 1,000 x 545	770 x 1,000 x 545	(770 x 1,000 x 545) x 2
	Shipping Dimensions (WxHxD)			mm	840 x 1,200 x 620	840 x 1,200 x 620	840 x 1,200 x 620	(840 x 1,200 x 620) x 2
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium energy efficiency Type

Type					DVM S Water	DVM S Water	DVM S Water	DVM S Water
Model Name					AM180MXWA✱✱	AM200MXWA✱✱	AM220MXWA✱✱	AM240MXWA✱✱
	Outdoor unit module 1				AM080MXWA✱✱	AM200MXWA✱✱	AM100MXWA✱✱	AM120MXWA✱✱
	Outdoor unit module 2				AM100MXWA✱✱	-	AM120MXWA✱✱	AM120MXWA✱✱
	Outdoor unit module 3				-	-	-	-
	Outdoor unit module 4				-	-	-	-
Power Supply				Ø, #, V, Hz	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	18	20	22	24
	Ton			Ton	14.33	15.92	17.52	19.11
	Capacity	Cooling		kW	50.4	56.0	61.6	67.2
				Btu/h	172,000	191,100	210,200	229,300
		Heating [2]*		kW	56.7	63.0	69.3	75.6
				Btu/h	193,500	215,000	236,500.0	258,000
		Heating [4]*		kW	-	50.4	-	-
				Btu/h	-	172,000	-	-
Maximum number of connectable indoor units				ea	32	36	40	44
	Total capacity of the connected Indoor Units	Min.		kW	25.2	28.0	30.8	33.6
		Max.		kW	65.5	72.8	80.1	87.4
Power	Power Input	Cooling [1]*		kW	8.54	10.77	10.87	12
		Heating [2]*			9.01	10.86	11.29	12.5
		Heating [4]*			-		-	-
	Current Input	Cooling [1]*		A	14.3	17.3	18.4	20.6
		Heating [2]*			15.0	17.4	18.8	20.8
	Current	Minimum Ssc value		MVA	7.8	7.7	8.7	9.6
		MCA		A	32.2	31.8	36.1	40.0
		MFA		A	40.0	40.0	40.0	50.0
COP	Cooling [1]*			W/W	5.90	5.20	5.67	5.60
	Neating [2]*			W/W	6.29	5.80	6.14	6.05
	Heating [4]*			W/W	-	4.30	-	-
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(5.18) x 2	(5.18) x 2	(5.18) x 1 + (6.39) x 1	(6.39) x 2
	Model Name			-	DS-GB052FAVB x 2	DS-GB052FAVB x 2	DS-GB052FAVB x 1 + DS-GB066FAVB X 1	DS-GB066FAVB x 2
	Oil	Type		-	PVE	PVE	PVE	PVE
		Initial Charge		cc	1,100 x 2	1,100 x 2	1,100 x 2	1,100 x 2
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT 1-1/4 x 2	PT 1-1/4	PT 1-1/4 x 2	PT 1-1/4 x 2
	Pressure Drop			kPa	22 .0 + 30.0	54.0	30.0 + 43.0	43.0 x 2
	Water Flow Rate			LPM	80.0 + 96.0	190.0	96.0 + 114.0	114.0 x 2
	Max. Pressure			Mpa	1.96	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	15.88	15.88	15.88	15.88
				Ø, inch	5/8"	5/8"	5/8"	5/8"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	28.58	28.58	28.58	28.58
				Ø, inch	1 1/8"	1 1/8"	1 1/8"	1 1/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	22.22	28.58	28.58	28.58
				Ø, inch	7/8"	1 1/8"	1 1/8"	1 1/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90	90
	Total piping length	System	Actual	m	500	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50	50
			Indoor unit in highest position	m	40	40	40	40
		IDU-IDU	Max.	m	50	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R410A	R410A	R410A	R410A
	Factory Charging			kg	11.3	9.8	11.8	12.0
Sound [3]*	Sound Pressure		Cooling	dB(A)	50	50	51	51
			Heating		51	52	53	54
	Sound Power				65	70	69	71
External Dimension	Net Weight			kg	160 x 2	240	160 x 2	160 x 2
	Shipping Weight			kg	167 x 2	250	167 x 2	167 x 2
	Net Dimensions (WxHxD)			mm	(770 x 1,000 x 545) x 2	1,100 x 1,000 x 545	(770 x 1,000 x 545) x 2	(770 x 1,000 x 545) x 2
	Shipping Dimensions (WxHxD)			mm	(840 x 1,200 x 620) x 2	1,170 x 1,200 x 620	(840 x 1,200 x 620) x 2	(840 x 1,200 x 620) x 2
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium energy efficiency Type

Type					DVM S Water	DVM S Water	DVM S Water	DVM S Water
Model Name					AM260MXWA✱✱	AM280MXWA✱✱	AM300MXWA✱✱	AM320MXWA✱✱
	Outdoor unit module 1				AM080MXWA✱✱	AM080MXWA✱✱	AM100MXWA✱✱	AM120MXWA✱✱
	Outdoor unit module 2				AM080MXWA✱✱	AM200MXWA✱✱	AM200MXWA✱✱	AM200MXWA✱✱
	Outdoor unit module 3				AM100MXWA✱✱	-	-	-
	Outdoor unit module 4				-	-	-	-
Power Supply				Ø, #, V, Hz	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	26	28	30	32
	Ton			Ton	20.70	22.29	23.88	25.48
	Capacity	Cooling		kW	72.8	78.4	84.0	89.6
				Btu/h	248,400	267,500	286,600	305,700
		Heating [2]*		kW	81.9	88.2	94.5	100.8
				Btu/h	279,500	301,000	322,400	343,900
		Heating [4]*		kW	-	-	-	-
				Btu/h	-	-	-	-
Maximum number of connectable indoor units				ea	47	51	55	58
	Total capacity of the connected Indoor Units	Min.		kW	36.4	39.2	42.0	44.8
		Max.		kW	94.6	101.9	109.2	116.5
Power	Power Input	Cooling [1]*		kW	12.21	14.44	15.64	16.77
		Heating [2]*			12.98	14.83	15.9	17.11
		Heating [4]*			-	-	-	-
	Current Input	Cooling [1]*		A	20.5	23.5	25.4	27.6
		Heating [2]*			21.6	24.0	25.8	27.8
	Current	Minimum Ssc value		MVA	11.7	11.6	11.6	12.5
		MCA		A	48.3	47.9	47.9	51.8
		MFA		A	63.0	63.0	63.0	63.0
COP	Cooling [1]*			W/W	5.96	5.43	5.37	5.34
	Heating [2]*			W/W	6.31	5.95	5.94	5.89
	Heating [4]*			W/W	-	-	-	-
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(5.18) x 3	(5.18) x 3	(5.18) x 3	(5.18) x 2 + (6.39) x 1
	Model Name			-	DS-GB052FAVB x 3	DS-GB052FAVB x 3	DS-GB052FAVB x 3	DS-GB066FAVB x 1 + DS-GB052FAVB x 2
	Oil	Type		-	PVE	PVE	PVE	PVE
		Initial Charge		cc	1,100 x 3	1,100 + (1,100 x 2)	1,100 + (1,100 x 2)	1,100 + (1,100 x 2)
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT1-1/4 x 3	PT1-1/4 x 2	PT1-1/4 x 2	PT1-1/4 x 2
	Pressure Drop			kPa	22.0 x 2 + 30.0	22.0 + 54.0	30.0 +54.0	43.0 + 54.0
	Water Flow Rate			LPM	80.0 x 2 + 96.0	80.0 + 190.0	96.0 + 190.0	114.0 + 190.0
	Max. Pressure			Mpa	1.96	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	19.05	19.05	19.05	19.05
				Ø, inch	3/4"	3/4"	3/4"	3/4"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	34.92	34.92	34.92	34.92
				Ø, inch	1 3/8"	1 3/8"	1 3/8"	1 3/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	28.58	28.58	28.58	28.58
				Ø, inch	1 1/8"	1 1/8"	1 1/8"	1 1/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90	90
	Total piping length	System	Actual	m	500	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50	50
			Indoor unit in highest position	m	40	40	40	40
		IDU-IDU	Max.	m	50	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R410A	R410A	R410A	R410A
	Factory Charging			kg	16.8	15.3	15.6	15.8
Sound [3]*	Sound Pressure		Cooling	dB(A)	51	52	52	52
			Heating		53	53	54	55
	Sound Power				66	71	71	72
External Dimension	Net Weight			kg	160 x 3	160 + 240	160 + 240	160 + 240
	Shipping Weight			kg	167 x 3	167 + 250	167 + 250	167 + 250
	Net Dimensions (WxHxD)			mm	(770 x 1,000 x 545) x 3	770 x 1,000 x 545 + 1,100 x 1,000 x 545	770 x 1,000 x 545 + 1,100 x 1,000 x 545	770 x 1,000 x 545 + 1,100 x 1,000 x 545
	Shipping Dimensions (WxHxD)			mm	(840 x 1,200 x 620) x 3	840 x 1,200 x 620 + 1,170 x 1,200 x 620	840 x 1,200 x 620 + 1,170 x 1,200 x 620	840 x 1,200 x 620 + 1,170 x 1,200 x 620
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium energy efficiency Type

Type					DVM S Water	DVM S Water	DVM S Water	DVM S Water
Model Name					AM340MXWA✱✱	AM360MXWA✱✱	AM380MXWA✱✱	AM400MXWA✱✱
	Outdoor unit module 1				AM100MXWA✱✱	AM080MXWA✱✱	AM080MXWA✱✱	AM200MXWA✱✱
	Outdoor unit module 2				AM120MXWA✱✱	AM080MXWA✱✱	AM100MXWA✱✱	AM200MXWA✱✱
	Outdoor unit module 3				AM120MXWA✱✱	AM200MXWA✱✱	AM200MXWA✱✱	-
	Outdoor unit module 4				-	-	-	-
Power Supply				Ø, #, V, Hz	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	34	36	38	40
	Ton			Ton	27.07	28.66	30.26	31.85
	Capacity	Cooling		kW	95.2	100.8	106.4	112.0
				Btu/h	324,800	343,900	363,100	382,200
		Heating [2]*		kW	107.1	113.4	119.7	126.0
				Btu/h	365,400	386,900	408,400	429,900
		Heating [4]*		kW	-	-	-	-
				Btu/h	-	-	-	-
Maximum number of connectable indoor units				ea	62	64	64	64
	Total capacity of the connected Indoor Units	Min.		kW	47.6	50.4	53.2	56.0
		Max.		kW	123.8	131.0	138.3	145.6
Power	Power Input	Cooling [1]*		kW	16.87	18.11	19.31	21.54
		Heating [2]*			17.54	18.80	19.87	21.72
		Heating [4]*			-	–	-	-
	Current Input	Cooling [1]*		A	28.7	29.7	31.6	34.6
		Heating [2]*			29.2	30.6	32.4	34.6
	Current	Minimum Ssc value		MVA	13.5	15.5	15.5	15.4
		MCA		A	56.1	64.0	64.0	63.6
		MFA		A	63.0	75.0	75.0	75.0
COP	Cooling [1]*			W/W	5.64	5.57	5.51	5.20
	Heating [2]*			W/W	6.11	6.03	6.02	5.80
	Heating [4]*			W/W	-	-	-	-
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(5.18) x 1 + (6.39) x 2	(5.18) x 4	(5.18) x 4	(5.18) x 4
	Model Name			-	"DS-GB052FAVB x 1 + DS-GB066FAVB x 2"	DS-GB052FAVB x 4	DS-GB052FAVB x 4	DS-GB052FAVB x 4
	Oil	Type		-	PVE	PVE	PVE	PVE
		Initial Charge		cc	1,100 x 3	(1,100 x 2)+(1,100 x 2)	(1,100 x 2)+(1,100 x 2)	(1,100 x 2)+(1,100 x 2)
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT 1-1/4 x 3	PT 1-1/4 x 3	PT 1-1/4 x 3	PT 1-1/4 x 2
	Pressure Drop			kPa	30.0 + 43.0 x 2	22.0 x 2 + 54.0	22.0 + 30.0 + 54.0	54.0 x 2
	Water Flow Rate			LPM	96.0 + 114.0 x 2	80.0 x 2 + 190.0	80.0 + 96.0 +190.0	190.0 x 2
	Max. Pressure			Mpa	1.96	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	19.05	19.05	19.05	19.05
				Ø, inch	3/4"	3/4"	3/4"	3/4"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	34.92	41.28	41.28	41.28
				Ø, inch	1 3/8"	1 5/8"	1 5/8"	1 5/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	28.58	34.92	34.92	34.92
				Ø, inch	1 1/8"	1 3/8"	1 3/8"	1 3/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90	90
	Total piping length	System	Actual	m	500	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50	50
			Indoor unit in highest position	m	40	40	40	40
		IDU-IDU	Max.	m	50	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R410A	R410A	R410A	R410A
	Factory Charging			kg	17.8	20.8	21.1	19.6
Sound [3]*	Sound Pressure		Cooling	dB(A)	52	53	53	54
			Heating		55	54	55	56
	Sound Power				71	71	71	74
External Dimension	Net Weight			kg	160 x 3	160 x 2 + 240	160 x 2 + 240	240 x 2
	Shipping Weight			kg	167 x 3	167 x 2 + 250	167 x 2 + 250	250 x 2
	Net Dimensions (WxHxD)			mm	(770 x 1,000 x 545) x 3	(770 x 1,000 x 545) x 2 + 1,100 x 1,000 x 545	(770 x 1,000 x 545) x 2 + 1,100 x 1,000 x 545	(1,100 x 1,000 x 545) x 2
	Shipping Dimensions (WxHxD)			mm	(840 x 1,200 x 620) x 3	(840 x 1,200 x 620) x 2 + 1,170 x 1,200 x 620	(840 x 1,200 x 620) x 2 + 1,170 x 1,200 x 620	(1,170 x 1,200 x 620) x 2
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium energy efficiency Type

Type					DVM S Water	DVM S Water	DVM S Water
Model Name					AM420MXWA✱✱	AM440MXWA✱✱	AM480MXWA✱✱
	Outdoor unit module 1				AM100MXWA✱✱	AM120MXWA✱✱	AM080MXWA✱✱
	Outdoor unit module 2				AM120MXWA✱✱	AM120MXWA✱✱	AM200MXWA✱✱
	Outdoor unit module 3				AM200MXWA✱✱	AM200MXWA✱✱	AM200MXWA✱✱
	Outdoor unit module 4				-	-	-
Power Supply				Ø, #, V, Hz	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	42	44	48
	Ton			Ton	33.44	35.03	38.22
	Capacity	Cooling		kW	117.6	123.2	134.4
				Btu/h	401,300	420,400	458,600
		Heating [2]*		kW	132.3	138.6	151.2
				Btu/h	451,400	472,900	515,900
		Heating [4]*		kW	-	-	-
				Btu/h	-	-	-
Maximum number of connectable indoor units				ea	64	64	64
	Total capacity of the connected Indoor Units	Min.		kW	58.8	61.6	67.2
		Max.		kW	152.9	160.2	174.7
Power	Power Input	Cooling [1]*		kW	19.31	22.77	25.21
		Heating [2]*			19.87	23.36	25.69
		Heating [4]*			-	–	
	Current Input	Cooling [1]*		A	35.7	37.9	40.8
		Heating [2]*			36.2	38.2	41.4
	Current	Minimum Ssc value		MVA	16.4	17.3	19.3
		MCA		A	67.9	71.8	79.7
		MFA		A	75.0	80.0	90.0
COP	Cooling [1]*			W/W	6.09	5.41	5.33
	Heating [2]*			W/W	6.66	5.93	5.89
	Heating [4]*			W/W	-	-	
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(5.18) x 3 + (6.39) x 1	(5.18) x 2 + (6.39) x 2	(5.18) x 5
	Model Name			-	DS-GB052FAVB x 3 + DS-GB066FAVB x 1	DS-GB052FAVB x 2 + DS-GB066FAVB x 2	DS-GB052FAVB x 5
	Oil	Type		-	PVE	PVE	PVE
		Initial Charge		cc	(1,100 x 2)+(1,100 x 2)	(1,100 x 2)+(1,100 x 2)	1,100 +((1,100 x 2) x 2)
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT1-1/4 x 3	PT1-1/4 x 3	PT1-1/4 x 3
	Pressure Drop			kPa	30.0 + 43.0 + 54.0	43.0 x 2 + 54.0	22.0 +54.0 x 2
	Water Flow Rate			LPM	96.0 + 114.0 + 190.0	114.0 x 2 + 190.0	80.0 +190.0 x 2
	Max. Pressure			Mpa	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	19.05	19.05	19.05
				Ø, inch	3/4"	3/4"	3/4"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	41.28	41.28	41.28
				Ø, inch	1 5/8"	1 5/8"	1 5/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	34.92	34.92	34.92
				Ø, inch	1 3/8"	1 3/8"	1 3/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90
	Total piping length	System	Actual	m	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50
			Indoor unit in highest position	m	40	40	40
		IDU-IDU	Max.	m	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R410A	R410A	R410A
	Factory Charging			kg	21.6	21.8	25.1
Sound [3]*	Sound Pressure		Cooling	dB(A)	54	54	54
			Heating		56	56	56
	Sound Power				73	74	74
External Dimension	Net Weight			kg	160 x 2 + 240	160 x 2 + 240	160 + 240 x 2
	Shipping Weight			kg	167 x 2 + 250	167 x 2 + 250	167 + 250 x 2
	Net Dimensions (WxHxD)			mm	(770 x 1,000 x 545) x 2 + 1,100 x 1,000 x 545	(770 x 1,000 x 545) x 2 + 1,100 x 1,000 x 545	770 x 1,000 x 545 + (1,100 x 1,000 x 545) x 2
	Shipping Dimensions (WxHxD)			mm	(840 x 1,200 x 620) x 2 + 1,170 x 1,200 x 620	(840 x 1,200 x 620) x 2 + 1,170 x 1,200 x 620	840 x 1,200 x 620 + (1,170 x 1,200 x 620) x 2
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium energy efficiency Type

Type					DVM S Water	DVM S Water	DVM S Water
Model Name					AM500MXWA✱✱	AM520MXWA✱✱	AM600MXWA✱✱
	Outdoor unit module 1				AM100MXWA✱✱	AM120MXWA✱✱	AM200MXWA✱✱
	Outdoor unit module 2				AM200MXWA✱✱	AM200MXWA✱✱	AM200MXWA✱✱
	Outdoor unit module 3				AM200MXWA✱✱	AM200MXWA✱✱	AM200MXWA✱✱
	Outdoor unit module 4				-	-	-
Power Supply				Ø, #, V, Hz	3,4,380-415,50/60	3,4,380-415,50/60	3,4,380-415,50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	50	52	60
	Ton			Ton	39.81	41.4	47.77
	Capacity	Cooling		kW	140.0	145.6	168.0
				Btu/h	477,700	496,800	573,200
		Heating [2]*		kW	157.5	163.8	189.0
				Btu/h	537,400	558,900	644,900
		Heating [4]*		kW	-	-	-
				Btu/h	-	-	-
Maximum number of connectable indoor units				ea	64	64	64
	Total capacity of the connected Indoor Units	Min.		kW	70.0	72.8	84.0
		Max.		kW	182.0	189.3	218.4
Power	Power Input	Cooling [1]*		kW	25.21	26.41	32.31
		Heating [2]*			25.69	26.76	32.58
		Heating [4]*				–	–
	Current Input	Cooling [1]*		A	42.7	44.9	51.9
		Heating [2]*			43.2	45.2	52.2
	Current	Minimum Ssc value		MVA	19.3	20.2	23.1
		MCA		A	79.7	83.6	95.4
		MFA		A	90.0	100.0	125.0
COP	Cooling [1]*			W/W	5.55	5.51	5.20
	Heating [2]*			W/W	6.13	6.12	5.80
	Heating [4]*			W/W		-	–
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(5.18) x 5	(5.18) x 4 + (6.39) x 1	(5.18) x 6
	Model Name			-	DS-GB052FAVB x 5	"DS-GB052FAVB x 4 + DS-GB066FAVB x 1"	DS-GB052FAVB x 6
	Oil	Type		-	PVE	PVE	PVE
		Initial Charge		cc	1,100 +((1,100 x 2) x 2)	1,100 +((1,100 x 2)x 2)	(1,100 x 2)x 3
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT1-1/4 x 3	PT1-1/4 x 3	PT1-1/4 x 3
	Pressure Drop			kPa	30.0 + 54.0 x 2	43.0 + 54.0 x 2	54.0 x 3
	Water Flow Rate			LPM	96.0 + 190.0 x 2	114.0 + 190.0 x 2	190.0 x 3
	Max. Pressure			Mpa	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	19.05	19.05	19.05
				Ø, inch	3/4"	3/4"	3/4"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	41.28	41.28	41.28
				Ø, inch	1 5/8"	1 5/8"	1 5/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	34.92	34.92	34.92
				Ø, inch	1 3/8"	1 3/8"	1 3/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90
	Total piping length	System	Actual	m	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50
			Indoor unit in highest position	m	40	40	40
		IDU-IDU	Max.	m	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R410A	R410A	R410A
	Factory Charging			kg	25.4	25.6	29.4
Sound [3]*	Sound Pressure		Cooling	dB(A)	54	54	55
			Heating		56	57	57
	Sound Power				74	74	75
External Dimension	Net Weight			kg	160 + 240 x 2	160 + 240 x 2	240 x 3
	Shipping Weight			kg	167 + 250 x 2	167 + 250 x 2	250 x 3
	Net Dimensions (WxHxD)			mm	770 x 1,000 x 545 + (1,100 x 1,000 x 545) x 2	770 x 1,000 x 545 + (1,100 x 1,000 x 545) x 2	(1,100 x 1,000 x 545) x 3
	Shipping Dimensions (WxHxD)			mm	840 x 1,200 x 620 + (1,170 x 1,200 x 620) x 2	840 x 1,200 x 620 + (1,170 x 1,200 x 620) x 2	(1,170 x 1,200 x 620) x 3
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium compact type

Type					DVM S Water	DVM S Water	DVM S Water	DVM S Water
Model Name					AM300KXWANR	AM380MXWANR1	AM400MXWANR1	AM420MXWANR1
	Outdoor unit module 1				AM300KXWANR	AM300KXWANR	AM300KXWANR	AM300KXWANR
	Outdoor unit module 2				-	AM080MXWANR	AM100MXWANR	AM120MXWANR
	Outdoor unit module 3				-	-	-	-
	Outdoor unit module 4				-	-	-	-
Power Supply				Ø, #, V, Hz	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	30	38	40	42
	Ton			Ton	23.9	30.3	31.9	33.5
	Capacity	Cooling		kW	84.0	106.4	112.0	117.6
				Btu/h	286,600	363,027	382,133	401,240
		Heating [2]*		kW	94.5	119.7	126.0	132.3
				Btu/h	322,400	408,373	429,867	451,360
		Heating [4]*		kW	74	-	-	-
				Btu/h	252,500	-	-	-
Maximum number of connectable indoor units				ea	55	64	64	64
	Total capacity of the connected Indoor Units	Min.		kW	42.0	53.2	56.0	58.8
		Max.		kW	109.2	138.3	145.6	152.9
Power	Power Input	Cooling [1]*		kW	16.80	20.47	21.67	22.80
		Heating [2]*			16.88	20.85	21.92	23.13
		Heating [4]*			15.42	-	-	-
	Current Input	Cooling [1]*		A	26.4	32.6	34.5	36.7
		Heating [2]*			26.5	33.1	34.9	36.9
	Current	Minimum Ssc value		MVA	-	-	-	-
		MCA		A	48	64.1	64.1	68
		MFA		A	63	75	75	75
COP	Cooling [1]*			W/W	5.00	5.20	5.17	5.16
	Heating [2]*			W/W	5.60	5.74	5.75	5.72
	Heating [4]*			W/W	4.80	-	-	-
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(6.75)x2	(6.75)x2 + (5.18)x1	(6.75)x2 + (5.18)x1	(6.75)x2 + (6.39)x1
	Model Name			-	DS-GB070FAVASG x 2	DS-GB070FAVASG x 2 + DS-GB052FAVB x 1	DS-GB070FAVASG x 2 + DS-GB052FAVB x 1	DS-GB070FAVASG x 2 + DS-GB066FAVB x 1
	Oil	Type		-	PVE	PVE	PVE	PVE
		Initial Charge		cc	1,100 x 2	(1,100 x 2) + 1,100	(1,100 x 2) + 1,100	(1,100 x 2) + 1,100
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT2	PT2 + PT1-1/4	PT2 + PT1-1/4	PT2 + PT1-1/4
	Pressure Drop			kPa	50	50 + 22	50 + 30	50 + 43
	Water Flow Rate			LPM	285	285 + 80	285 + 96	285 + 114
	Max. Pressure			Mpa	1.96	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	19.05	19.05	19.05	19.05
				Ø, inch	3/4"	3/4"	3/4"	3/4"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	34.92	41.28	41.28	41.28
				Ø, inch	1 3/8"	1 5/8"	1 5/8"	1 5/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	28.58	34.92	34.92	34.92
				Ø, inch	1 1/8"	1 3/8"	1 3/8"	1 3/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90	90
	Total piping length	System	Actual	m	500	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50	50
			Indoor unit in highest position	m	40	40	40	40
		IDU-IDU	Max.	m	50	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R-410A	R-410A	R-410A	R-410A
	Factory Charging			kg	11.0	19.0	16.8	17.0
Sound [3]*	Sound Pressure		Cooling	dB(A)	56	57	57	57
			Heating		58	59	59	59
	Sound Power				75	76	76	76
External Dimension	Net Weight			kg	280	160 + 280	160 + 280	160 + 280
	Shipping Weight			kg	290	167 + 290	167 + 290	167 + 290
	Net Dimensions (WxHxD)			mm	1100 x 1000 x 545	(770 X 1000 X 545)+ (1100 x 1000 x 545)	(770 X 1000 X 545)+ (1100 x 1000 x 545)	(770 X 1000 X 545)+ (1100 x 1000 x 545)
	Shipping Dimensions (WxHxD)			mm	1170 x 1200 x 620	(840 X 1200 X 620)+ (1170 x 1200 x 620)	(840 X 1200 X 620)+ (1170 x 1200 x 620)	(840 X 1200 X 620)+ (1170 x 1200 x 620)
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium compact type

Type					DVM S Water	DVM S Water	DVM S Water	DVM S Water
Model Name					AM460MXWANR1	AM480MXWANR1	AM500MXWANR1	AM520MXWANR1
	Outdoor unit module 1				AM300KXWANR	AM300KXWANR	AM300KXWANR	AM300KXWANR
	Outdoor unit module 2				AM080MXWANR	AM100MXWANR	AM200MXWANR	AM120MXWANR
	Outdoor unit module 3				AM080MXWANR	AM080MXWANR	-	AM100MXWANR
	Outdoor unit module 4				-	-	-	-
Power Supply				Ø, #, V, Hz	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	46	48	50	52
	Ton			Ton	36.6	38.2	39.8	41.4
	Capacity	Cooling		kW	128.8	134.4	140.0	145.6
				Btu/h	439,453	458,560	477,667	496,773
		Heating [2]*		kW	144.9	151.2	157.5	163.8
				Btu/h	494,347	515,840	537,333	558,827
		Heating [4]*		kW	-	-	-	-
				Btu/h	-	-	-	-
Maximum number of connectable indoor units				ea	64	64	64	64
	Total capacity of the connected Indoor Units	Min.		kW	64.4	67.2	70.0	72.8
		Max.		kW	188.4	174.7	182.0	189.3
Power	Power Input	Cooling [1]*		kW	24.14	25.34	27.57	27.67
		Heating [2]*			24.82	25.89	27.74	28.17
		Heating [4]*			-	-	-	-
	Current Input	Cooling [1]*		A	38.8	40.7	43.7	44.8
		Heating [2]*			39.7	41.5	43.9	45.3
	Current	Minimum Ssc value		MVA	-	-	-	-
		MCA		A	80.2	80.2	79.8	84.1
		MFA		A	90	90	90	100
COP	Cooling [1]*			W/W	5.34	5.30	5.08	5.26
	Heating [2]*			W/W	5.84	5.84	5.68	5.81
	Heating [4]*			W/W	-	-	-	-
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(6.75)x2 + (5.18)x2	(6.75)x2 + (5.18)x2	(6.75)x2 + (5.18)x2	(6.75)x2 + (6.39)x1 + (5.18)x1
	Model Name			-	DS-GB070FAVASG x 2 + DS-GB052FAVB x 2	DS-GB070FAVASG x 2 + DS-GB052FAVB x 2	DS-GB070FAVASG x 2 + DS-GB052FAVB x 2	DS-GB070FAVASG x 2 + DS-GB066FAVB x 1 + DS-GB052FAVB x 1
	Oil	Type		-	PVE	PVE	PVE	PVE
		Initial Charge		cc	(1,100 x 2) + (1,100)x2	(1,100 x 2) + (1,100)x2	(1,100 x 2)x2	(1,100 x 2) + (1,100)x2
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT2 + PT1-1/4 x 2	PT2 + PT1-1/4 x 2	PT2 + PT1-1/4	PT2 + PT1-1/4 x 2
	Pressure Drop			kPa	50 + 22 x 2	50 + 22 + 30	50 + 54	50 + 43 + 30
	Water Flow Rate			LPM	285 + 80 x 2	285 + 80 + 96	285 + 190	285 + 114 + 96
	Max. Pressure			Mpa	1.96	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	19.05	19.05	19.05	19.05
				Ø, inch	3/4"	3/4"	3/4"	3/4"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	41.28	41.28	41.28	41.28
				Ø, inch	1 5/8"	1 5/8"	1 5/8"	1 5/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	34.92	34.92	34.92	34.92
				Ø, inch	1 3/8"	1 3/8"	1 3/8"	1 3/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90	90
	Total piping length	System	Actual	m	500	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50	50
			Indoor unit in highest position	m	40	40	40	40
		IDU-IDU	Max.	m	50	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R-410A	R-410A	R-410A	R-410A
	Factory Charging			kg	22.0	22.3	20.8	22.8
Sound [3]*	Sound Pressure		Cooling	dB(A)	57	57	57	57
			Heating		59	59	59	60
	Sound Power				76	76	77	76
External Dimension	Net Weight			kg	160 X 2 + 280	160 X 2 + 280	240 + 280	160 X 2 +280
	Shipping Weight			kg	167 X 2 +290	167 X 2 + 290	250 + 290	167 X 2 +290
	Net Dimensions (WxHxD)			mm	(770 X 1000 X 545) X 2+ (1100 x 1000 x 545)	(770 X 1000 X 545) X 2+ (1100 x 1000 x 545)	(1100 x 1000 x 545) X 2	(770 X 1000 X 545) X 2+ (1100 x 1000 x 545)
	Shipping Dimensions (WxHxD)			mm	(840 X 1200 X 620) X 2+ (1170 x 1200 x 620)	(840 X 1200 X 620) X 2+ (1170 x 1200 x 620)	(1170 x 1200 x 620) X2	(840 X 1200 X 620) X 2+ (1170 x 1200 x 620)
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium compact type

Type					DVM S Water	DVM S Water	DVM S Water	DVM S Water
Model Name					AM540MXWANR1	AM580MXWANR1	AM600MXWANR1	AM620MXWANR1
	Outdoor unit module 1				AM300KXWANR	AM300KXWANR	AM300KXWANR	AM300KXWANR
	Outdoor unit module 2				AM120MXWANR	AM200MXWANR	AM300KXWANR	AM200MXWANR
	Outdoor unit module 3				AM120MXWANR	AM080MXWANR	-	AM120MXWANR
	Outdoor unit module 4				-	-	-	-
Power Supply				Ø, #, V, Hz	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	54	58	60	62
	Ton			Ton	43.0	46.2	47.8	49.4
	Capacity	Cooling		kW	151.2	162.4	168.0	173.6
				Btu/h	515,880	554,093	573,200	592,307
		Heating [2]*		kW	170.1	182.7	189.0	195.3
				Btu/h	580,320	623,307	644,800	666,293
		Heating [4]*		kW	-	-	-	-
				Btu/h	-	-	-	-
Maximum number of connectable indoor units				ea	64	64	64	64
	Total capacity of the connected Indoor Units	Min.		kW	75.6	81.2	84.0	86.8
		Max.		kW	221.1	237.5	218.4	225.7
Power	Power Input	Cooling [1]*		kW	28.80	31.24	33.60	33.57
		Heating [2]*			29.38	31.71	33.76	33.99
		Heating [4]*			-	-	-	-
	Current Input	Cooling [1]*		A	47	49.9	52.8	54
		Heating [2]*			47.3	50.5	53	54.3
	Current	Minimum Ssc value		MVA	-	-	-	-
		MCA		A	88	95.9	96	99.8
		MFA		A	100	125	125	125
COP	Cooling [1]*			W/W	5.25	5.20	5.00	5.17
	Heating [2]*			W/W	5.79	5.76	5.60	5.75
	Heating [4]*			W/W	-	-	-	-
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(6.75)x2 + (6.39)x2	(6.75)x2 + (5.18)x3	6.75 x 4	(6.75)x2 + (5.18)x2 + (6.39)x1
	Model Name			-	DS-GB070FAVASG x 2 + DS-GB066FAVB x 2	DS-GB070FAVASG x 2 + DS-GB052FAVB x 3	(DS-GB070FAVASG x 2) x 2	DS-GB070FAVASG x 2 + DS-GB052FAVB x 3 + DS-GB066FAVB x 1
	Oil	Type		-	PVE	PVE	PVE	PVE
		Initial Charge		cc	(1,100 x 2) + (1,100)x2	(1,100 x 2)x2 + 1,100	(1,100 x 2) x 2	(1,100 x 2)x2 + 1,100
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT2 + PT1-1/4 x 2	PT2 + PT1-1/4 x 2	PT2 x 2	PT2 + PT1-1/4 x 2
	Pressure Drop			kPa	50 + 43x2	50 + 54 + 22	50 x 2	50 + 54 + 43
	Water Flow Rate			LPM	285 + 114x2	285 + 190 + 80	285 x 2	285 + 190 + 114
	Max. Pressure			Mpa	1.96	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	19.05	19.05	19.05	22.22
				Ø, inch	3/4"	3/4"	3/4"	7/8"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	41.28	41.28	41.28	53.98
				Ø, inch	1 5/8"	1 5/8"	1 5/8"	2 1/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	34.92	34.92	34.92	41.28
				Ø, inch	1 3/8"	1 3/8"	1 3/8"	1 5/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90	90
	Total piping length	System	Actual	m	500	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50	50
			Indoor unit in highest position	m	40	40	40	40
		IDU-IDU	Max.	m	50	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R-410A	R-410A	R-410A	R-410A
	Factory Charging			kg	23.0	26.3	22.0	26.8
Sound[3]*	Sound Pressure		Cooling	dB(A)	57	58	60	58
			Heating		60	60	62	60
	Sound Power				77	77	79	77
External Dimension	Net Weight			kg	160 X 2 + 280	160 + 240 + 280	280 x 2	160 + 240 + 280
	Shipping Weight			kg	167 X 2 +290	167 + 250 + 290	290 x 2	167 + 250 + 290
	Net Dimensions (WxHxD)			mm	(770 X 1000 X 545) X 2+ (1100 x 1000 x 545)	(770 X 1000 X 545) + (1100 x 1000 x 545) X 2	(1100 x 1000 x 545) x 2	(770 X 1000 X 545) + (1100 x 1000 x 545) X 2
	Shipping Dimensions (WxHxD)			mm	(840 X 1200 X 620) X 2+ (1170 x 1200 x 620)	(840 X 1200 X 620) + (1170 x 1200 x 620) X 2	(1170 x 1200 x 620) x 2	(840 X 1200 X 620) + (1170 x 1200 x 620) X 2
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

Premium compact type

Type					DVM S Water	DVM S Water	DVM S Water	DVM S Water
Model Name					AM680MXWANR1	AM700MXWANR1	AM800MXWANR1	AM900MXWANR1
	Outdoor unit module 1				AM300KXWANR	AM300KXWANR	AM300KXWANR	AM300KXWANR
	Outdoor unit module 2				AM300KXWANR	AM300KXWANR	AM300KXWANR	AM300KXWANR
	Outdoor unit module 3				AM080MXWANR	AM100MXWANR	AM200MXWANR	AM300KXWANR
	Outdoor unit module 4				-	-	-	-
Power Supply				Ø, #, V, Hz	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60	3, 4, 380-415, 50/60
Mode				-	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
Performance	HP			HP	68	70	80	90
	Ton			Ton	54.2	55.8	63.7	71.7
	Capacity	Cooling		kW	190.4	196.0	224.0	252.0
				Btu/h	649,627	668,733	764,267	859,800
		Heating [2]*		kW	214.2	220.5	252.0	283.5
				Btu/h	730,773	752,267	859,733	967,200
		Heating [4]*		kW	-	-	-	-
				Btu/h	-	-	-	-
Maximum number of connectable indoor units				ea	64	64	64	64
	Total capacity of the connected Indoor Units	Min.		kW	95.2	98.0	112.0	126.0
		Max.		kW	247.5	254.8	291.2	327.6
Power	Power Input	Cooling [1]*		kW	37.27	38.47	44.37	50.40
		Heating [2]*			37.73	38.80	44.62	50.64
		Heating [4]*			-	-	-	-
	Current Input	Cooling [1]*		A	59	60.9	70.1	79.2
		Heating [2]*			59.6	61.4	70.4	79.5
	Current	Minimum Ssc value		MVA	-	-	-	-
		MCA		A	112.1	112.1	127.8	144
		MFA		A	125	125	150	175
COP	Cooling [1]*			W/W	5.11	5.09	5.05	5.00
	Heating [2]*			W/W	5.68	5.68	5.65	5.60
	Heating [4]*			W/W	-	-	-	-
Casing	Material	Cabinet		-	Steel plate	Steel plate	Steel plate	Steel plate
		Base		-	Steel plate	Steel plate	Steel plate	Steel plate
Compressor	Type			-	Inverter Scroll	Inverter Scroll	Inverter Scroll	Inverter Scroll
	Output			kW × n	(6.75)x4 + (5.18)x1	(6.75)x4 + (5.18)x1	(6.75)x4 + (5.18)x2	6.75 x 6
	Model Name			-	DS-GB070FAVASG x 4 + DS-GB052FAVB x 1	DS-GB070FAVASG x 4 + DS-GB052FAVB x 1	DS-GB070FAVASG x 4 + DS-GB052FAVB x 2	(DS-GB070FAVASG x 2) x 3
	Oil	Type		-	PVE	PVE	PVE	PVE
		Initial Charge		cc	(1,100 x 2)x2 + 1,100	(1,100 x 2)x2 + 1,100	(1,100 x 2)x3	(1,100 x 2) x 3
Condenser	Type			Type	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)	PHE(Plate Heat Exchanger)
	Pipe Size			Ø, inch	PT2x2 + PT1-1/4	PT2x2 + PT1-1/4	PT2x2 + PT1-1/4	PT2 x 3
	Pressure Drop			kPa	50x2 + 22	50x2 + 30	50x2 + 54	50 x 3
	Water Flow Rate			LPM	285x2 + 80	285x2 + 96	285x2 + 190	285 x 3
	Max. Pressure			Mpa	1.96	1.96	1.96	1.96
Piping Connections	Liquid Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	22.22	22.22	22.22	22.22
				Ø, inch	7/8"	7/8"	7/8"	7/8"
	Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	53.98	53.98	53.98	53.98
				Ø, inch	2 1/8"	2 1/8"	2 1/8"	2 1/8"
	Discharge Gas Pipe			Type	Brazed connection	Brazed connection	Brazed connection	Brazed connection
				Ø, mm	41.28	41.28	41.28	41.28
				Ø, inch	1 5/8"	1 5/8"	1 5/8"	1 5/8"
	Heat insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Piping length	ODU-IDU	Max.	m	170 (190)	170 (190)	170 (190)	170 (190)
		After branch	Max.	m	90	90	90	90
	Total piping length	System	Actual	m	500	500	500	500
	Level difference	ODU-IDU	Outdoor unit in highest position	m	50	50	50	50
			Indoor unit in highest position	m	40	40	40	40
		IDU-IDU	Max.	m	50	50	50	50
Wiring connections	Communication	Minimum		mm^2	0.75	0.75	0.75	0.75
		Remark		-	F1, F2	F1, F2	F1, F2	F1, F2
Refrigerant	Type			-	R-410A	R-410A	R-410A	R-410A
	Factory Charging			kg	27.5	27.8	31.8	33.0
Sound[3]*	Sound Pressure		Cooling	dB(A)	60	60	60	61
			Heating		62	62	62	63
	Sound Power				79	79	79	80
External Dimension	Net Weight			kg	160 + 280 X 2	160 +280 X 2	240 + 280 X 2	280 x 3
	Shipping Weight			kg	167 + 290 X 2	167 +290 X 2	250 +290X 2	290 x 3
	Net Dimensions (WxHxD)			mm	(770 X 1000 X 545) + (1100 x 1000 x 545) X 2	(770 X 1000 X 545) + (1100 x 1000 x 545) X 2	(1100 x 1000 x 545) x 3	(1100 x 1000 x 545) x 3
	Shipping Dimensions (WxHxD)			mm	(840 X 1200 X 620) + (1170 x 1200 x 620) X 2	(840 X 1200 X 620) + (1170 x 1200 x 620) X 2	(1170 x 1200 x 620) x 3	(1170 x 1200 x 620) x 3
Operating Temp. Range	Cooling			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0
	Heating			℃	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0	10.0 ~ 45.0

2. Specification

NOTE

- Specification may be subject to change without prior notice.

1) Cooling capacities are based on;
   - Indoor temperature : 27°C DB, 19°C WB, Inlet water temperature : 30°C, Equivalent refrigerant piping : 7.5m, Level differences : 0m
2) Heating capacities are based on;
   - Indoor temperature : 20°C DB, 15°C WB, Inlet water temperature : 20°C, Equivalent refrigerant piping : 7.5m, Level differences : 0m
3) Sound power level is an absolute value that a sound source generates.
   - Sound pressure level is a relative value, depending on the distance and acoustic environment.
   - Sound values are obtained in an anechoic room.
   - Sound values of multi comvination are theoretical values based on sound results of individual installed units.
4) Heating capacityes are based on;
   - Indoor temperature : 20°C DB, 15°C WB, Inlet water temperature : 10°C, Outlet water temperature : 7°C, Equivalent refrigerant piping : 7.5m, Level differences : 0m
5) These products contain R410A(GWP=2,088) which is fluorinated greenhouse gas.
6) Total capacity of the connected indoor units can be allowed from 50% to 130% of the total outdoor unit capacity. $0.5 \times \sum$(Outdoor unit capacity) ≤ Total capacity of the connected indoor units ≤ $1.3 \times \sum$(Outdoor unit capacity)
7) 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 indoor unit address was assigned from 64~79, E201 error will occur.0~63. If the If the indoor unit address was assigned from 64~79, E201 error will occur.

3. Electric Characteristics

Single

Capacity		Model	Power Supply		Voltage Range		Nominal Running Current [A]		Current [A]	
			Hz	Voltage	Min.	Max.				
HP	kW				(-10%)	(+10%)	Cooling	Heating	MCA	MFA
8	22.4	AM080MXWANR	50/60	380~415	342	456	6.2	6.6	16.1	20
10	28.0	AM100MXWANR	50/60	380~415	342	456	8.1	8.4	16.1	20
12	33.6	AM120MXWANR	50/60	380~415	342	456	10.3	10.4	20.0	25
20	56.0	AM200MXWANR	50/60	380~415	342	456	17.3	17.4	31.8	40
30	84.0	AM300KXWANR	50/60	380~415	342	456	26.4	26.5	48.1	63.1

Module (Premium energy efficiency type)

Capacity		Model	Power Supply		Voltage Range		Nominal Running Current [A]		Current [A]	
			Hz	Voltage	Min.	Max.				
HP	kW				(-10%)	(+10%)	Cooling	Heating	MCA	MFA
16	44.8	AM160MXWANR2	50/60	380~415	342	456	12.4	13.2	32.2	40
18	50.4	AM180MXWANR2	50/60	380~415	342	456	14.3	15	32.2	40
22	61.6	AM220MXWANR2	50/60	380~415	342	456	18.4	18.8	36.1	40
24	67.2	AM240MXWANR2	50/60	380~415	342	456	20.6	20.8	40.0	50
26	72.8	AM260MXWANR2	50/60	380~415	342	456	20.5	21.6	48.3	63
28	78.4	AM280MXWANR2	50/60	380~415	342	456	23.5	24	47.9	63
30	84.0	AM300MXWANR2	50/60	380~415	342	456	25.4	25.8	47.9	63
32	89.6	AM320MXWANR2	50/60	380~415	342	456	27.6	27.8	51.8	63
34	95.2	AM340MXWANR2	50/60	380~415	342	456	28.7	29.2	56.1	63
36	100.8	AM360MXWANR2	50/60	380~415	342	456	29.7	30.6	64.0	75
38	106.4	AM380MXWANR2	50/60	380~415	342	456	31.6	32.4	64.0	75
40	112.0	AM400MXWANR2	50/60	380~415	342	456	34.6	34.6	63.6	75
42	117.6	AM420MXWANR2	50/60	380~415	342	456	35.7	36.2	67.9	75
44	123.2	AM440MXWANR2	50/60	380~415	342	456	37.9	38.2	71.8	80
48	134.4	AM480MXWANR2	50/60	380~415	342	456	40.8	41.4	79.7	90
50	140.0	AM500MXWANR2	50/60	380~415	342	456	42.7	43.2	79.7	90
52	145.6	AM520MXWANR2	50/60	380~415	342	456	44.9	45.2	83.6	100
60	168.0	AM600MXWANR2	50/60	380~415	342	456	51.9	52.2	95.4	125

3. Electric Characteristics

Module (Premium compact type)

Capacity		Model	Power Supply		Voltage Range		Nominal Running Current [A]		Current [A]	
			Hz	Voltage	Min. (-10%)	Max. (+10%)				
HP	kW						Cooling	Heating	MCA	MFA
38	106.4	AM380MXWANR1	50/60	380~415	342	456	32.6	33.1	64.1	75
40	112.0	AM400MXWANR1	50/60	380~415	342	456	34.5	34.9	64.1	75
42	117.6	AM420MXWANR1	50/60	380~415	342	456	36.7	36.9	68.0	75
46	128.8	AM460MXWANR1	50/60	380~415	342	456	38.8	39.7	80.2	90
48	134.4	AM480MXWANR1	50/60	380~415	342	456	40.7	41.5	80.2	90
50	140.0	AM500MXWANR1	50/60	380~415	342	456	43.7	43.9	79.8	90
52	145.6	AM520MXWANR1	50/60	380~415	342	456	44.8	45.3	84.1	100
54	151.2	AM540MXWANR1	50/60	380~415	342	456	47	47.3	88.0	100
58	162.4	AM580MXWANR1	50/60	380~415	342	456	49.9	50.5	95.9	125
60	168.0	AM600MXWANR1	50/60	380~415	342	456	52.8	53	96.0	125
62	173.6	AM620MXWANR1	50/60	380~415	342	456	54	54.3	99.8	125
68	190.4	AM680MXWANR1	50/60	380~415	342	456	59	59.6	112.1	125
70	196.0	AM700MXWANR1	50/60	380~415	342	456	60.9	61.4	112.1	125
80	224.0	AM800MXWANR1	50/60	380~415	342	456	70.1	70.4	127.8	150
90	252.0	AM900MXWANR1	50/60	380~415	342	456	79.2	79.5	144.0	175

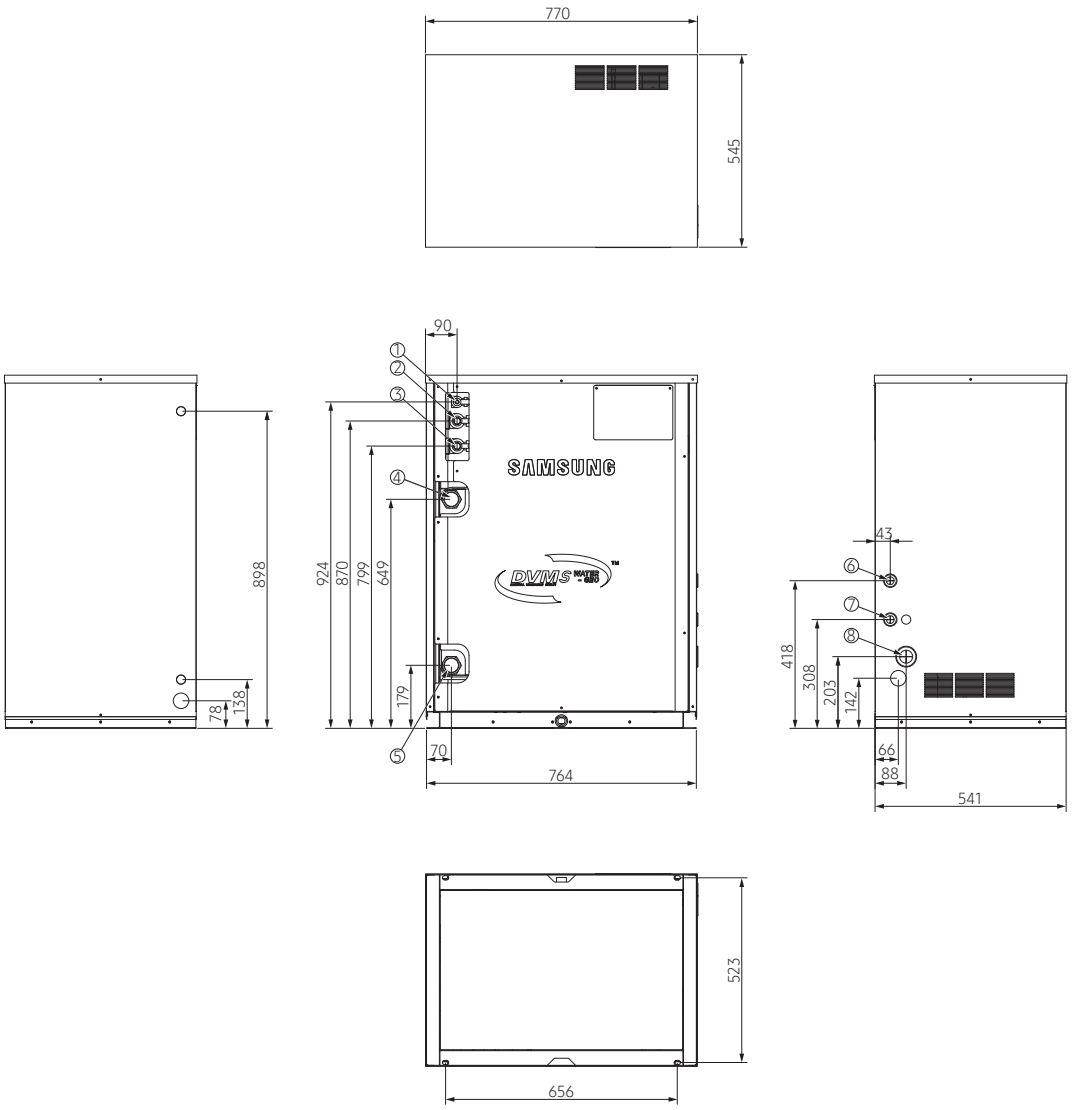
NOTE

- MCA: Mimium circuit amperes
- MFA: Maximum fuse amperes
- Select wire size based on the value of MCA

4. Dimensional Drawing

AM080/100/120MXWA✳✳ (8, 10, 12HP)

Unit : mm

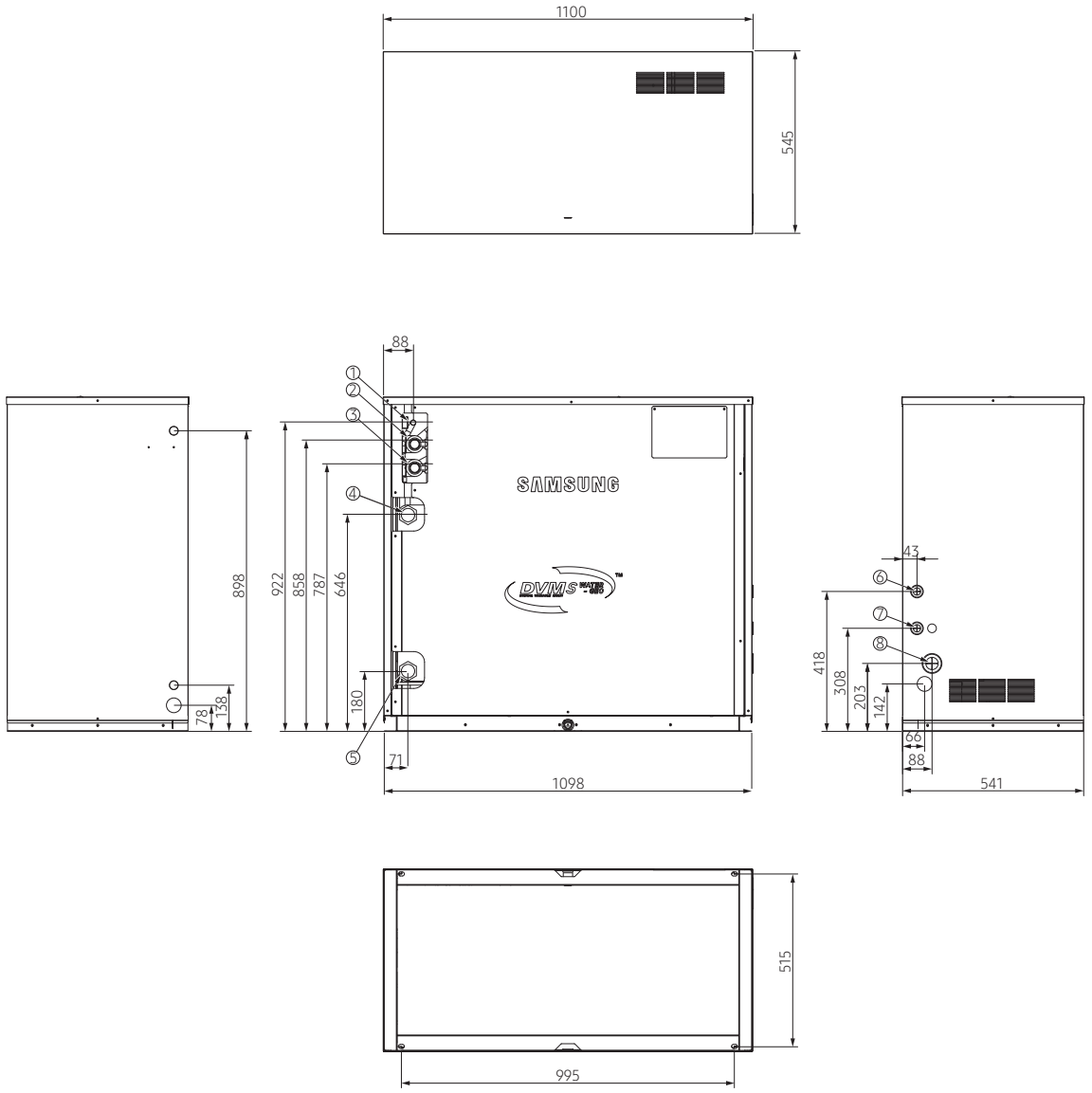


No.	Name	Description			No.	Name	Description		
		8HP	10HP	12HP			8HP	10HP	12HP
①	Liquid ref. pipe	9.52 (3/8")	9.52 (3/8")	12.70 (1/2")	⑤	Water inlet pipe	PT 1-1/4		
②	High pressure gas ref. pipe	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	⑥	Communication wiring	-		
③	Low pressure gas ref. pipe	19.05 (3/4")	22.22 (7/8")	28.58 (11/8")	⑦	External contact wiring	-		
④	Water outlet pipe	PT 1-1/4			⑧	Power wiring	-		

4. Dimensional Drawing

AM200MXWA✳✳ (20HP)

Unit : mm

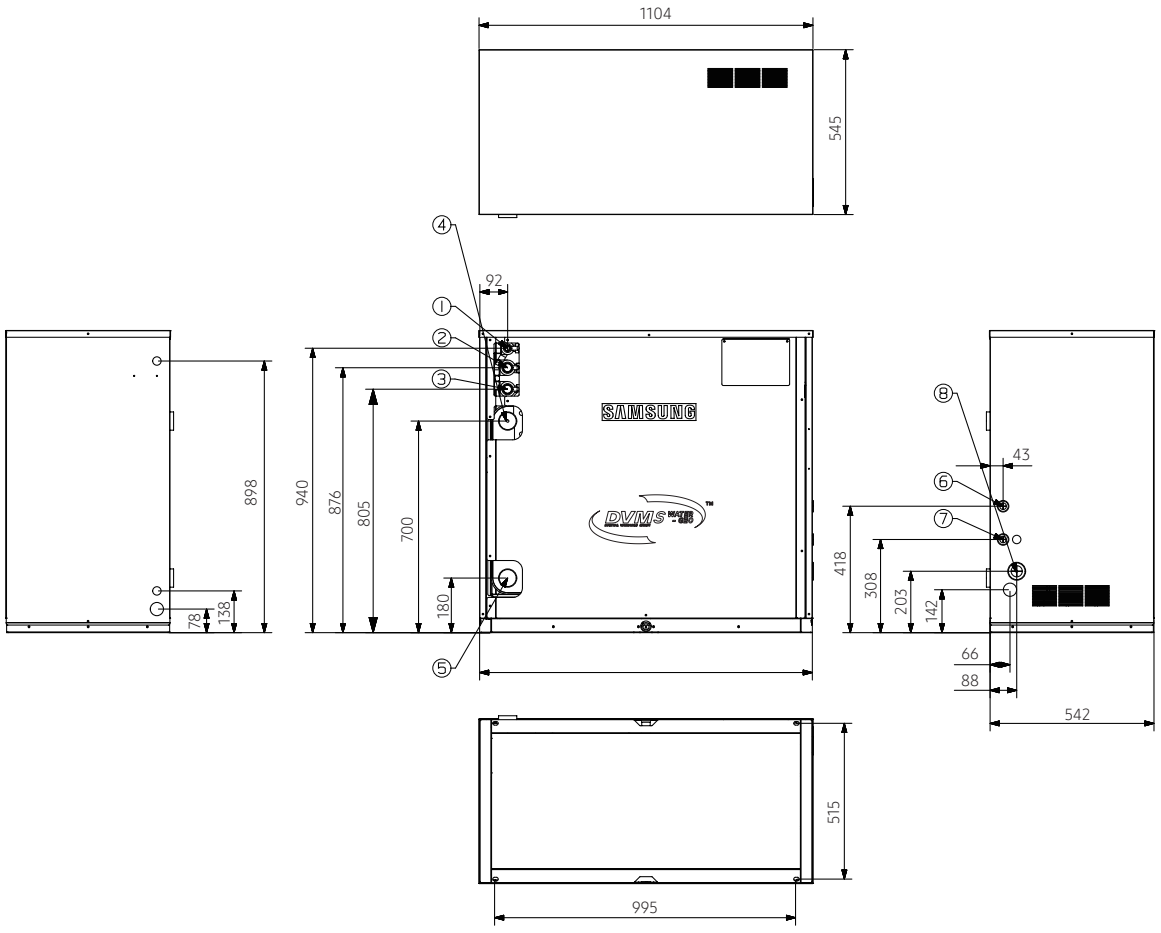


No.	Name	Description	No.	Name	Description
①	Liquid ref. pipe	15.88 (5/8")	⑤	Water inlet pipe	PT1-1/4
②	High pressure gas ref. pipe	28.58 (1 1/8")	⑥	Communication wiring	-
③	Low pressure gas ref. pipe	28.58 (1 1/8")	⑦	External contact wiring	-
④	Water outlet pipe	PT1-1/4	⑧	Power wiring	-

4. Dimensional Drawing

AM300KXWA✳✳ (30HP)

Unit : mm

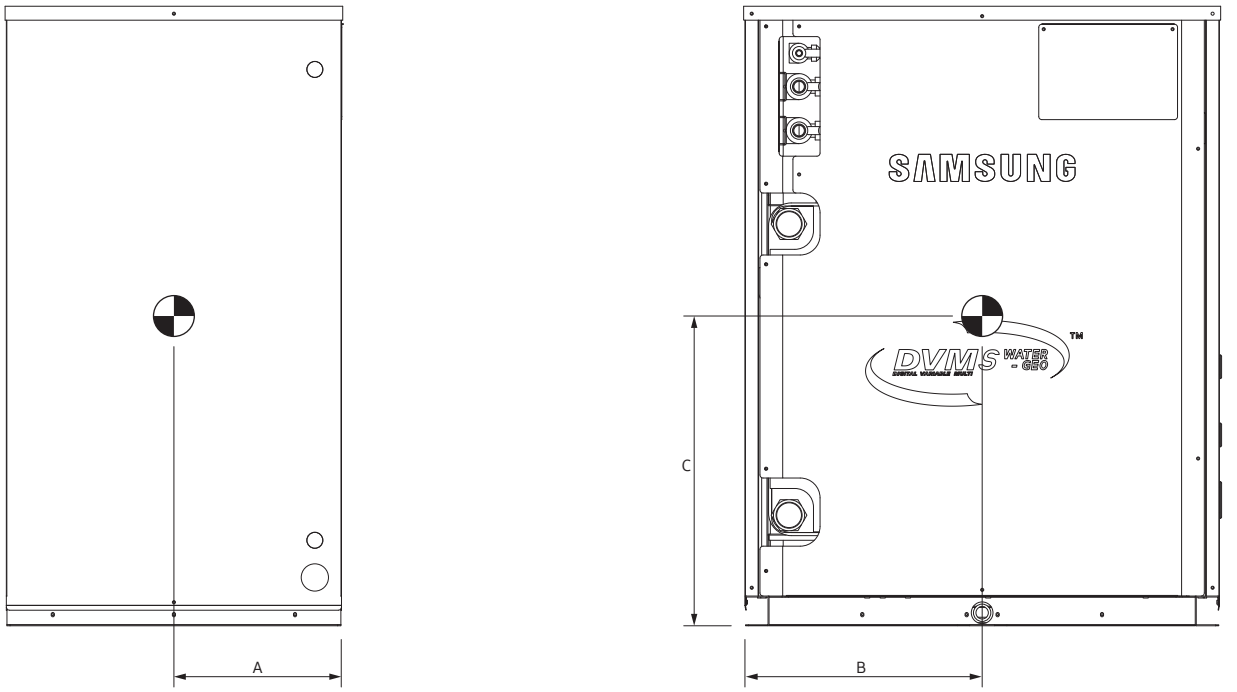


No.	Name	Description	No.	Name	Description
①	Liquid ref. pipe	Ø 19.05 (3/4")	⑤	Water inlet pipe	PT2
②	Gas ref. pipe	Ø 28.58 (1 1/8")	⑥	Communication wiring	-
③	High pressure gas ref. pipe	Ø 34.92 (1 3/8")	⑦	External contact wiring	-
④	Water outlet pipe	PT2	⑧	Power wiring	-

5. Center of Gravity

AM080/100/120MXWA✳✳ (8, 10, 12HP)

Unit : mm

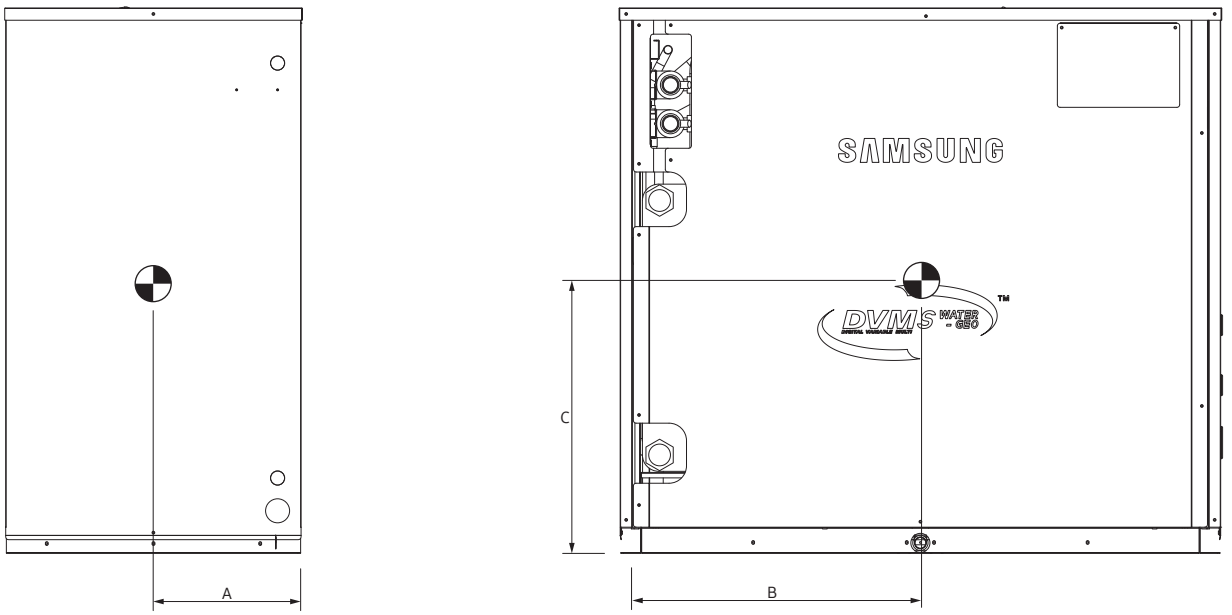


Model	A	B	C
AM080/100/120MXWA✳✳	211	345	353

5. Center of Gravity

AM200MXWA✳✳, AM300KXWA✳✳ (20, 30HP)

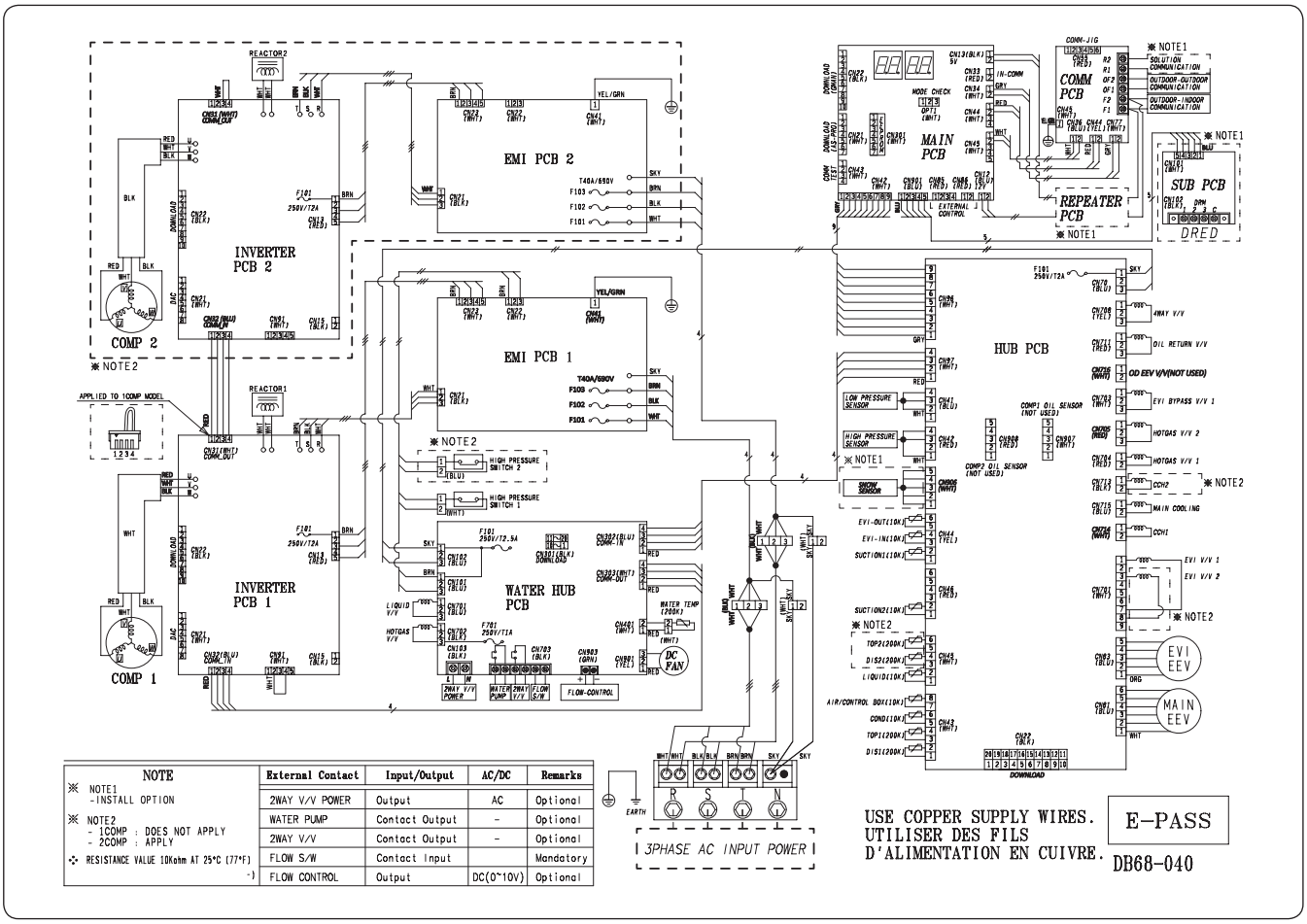
Unit : mm



Model	A	B	C
AM200MXWA✳✳	210	476	362
AM300KXWA✳✳	206	461	390

6. Electrical Wiring Diagram

AM080MXWA✻✻~AM200MXWA✻✻ (8~20HP)✻✻



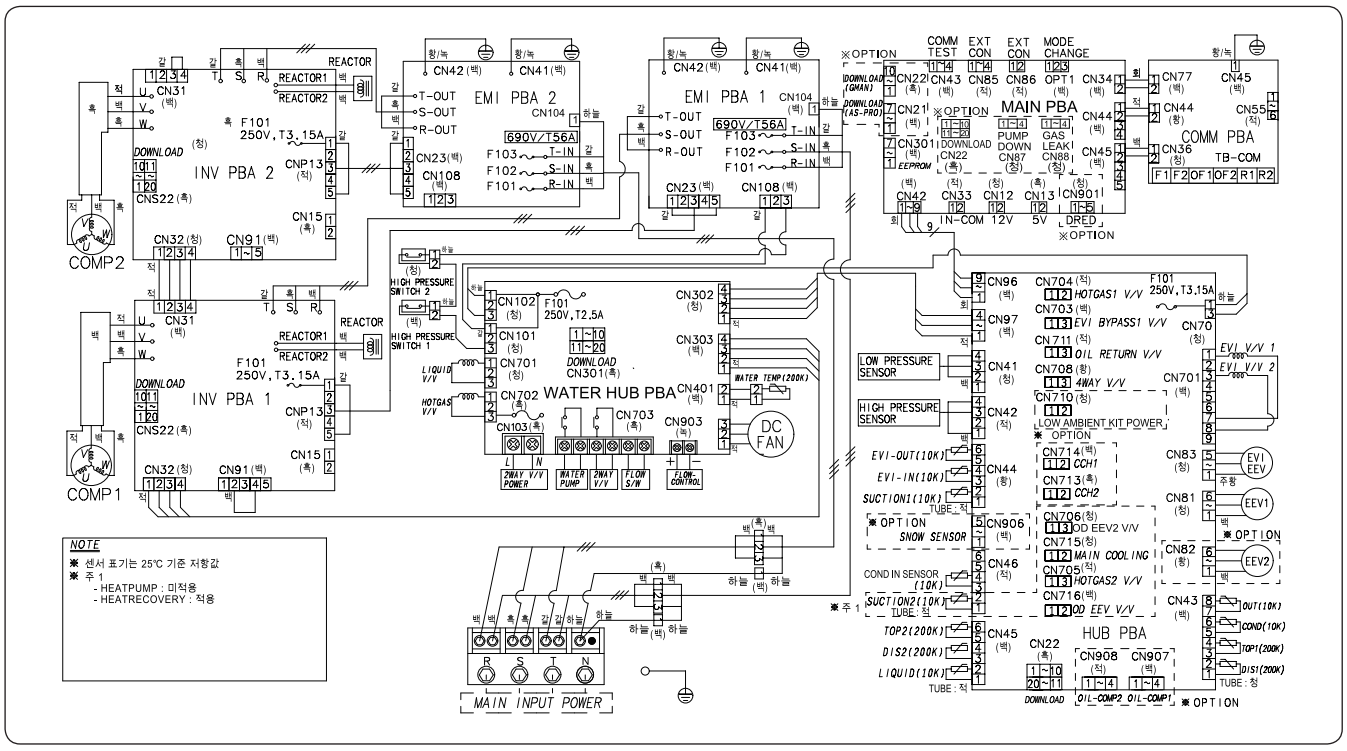
INVERTER PCB1	Printed circuit board (Inverter PBA1)	EEV1	Electrical Expansion Valve 1	HOTGAS V/V1	Solenoid Valve (Hot Gas Bypass1)
INVERTER PCB2	Printed circuit board (Inverter PBA2)	EEV2	Electrical Expansion Valve 2	HOTGAS V/V 2	Solenoid Valve (Hot Gas Bypass2)
EMI PCB1	Printed circuit board (Noise Filter1)	EVI-OUT (10K)	Temp. Sensor (EVI-out_10kohm)	EVI BYPASS V/V 1	Solenoid Valve (EVI Bypass)
EMI PCB2	Printed circuit board (Noise Filter2)	EVI-IN (10K)	Temp. Sensor (EVI-in_10Kohm)	OIL RETURN V/V	Solenoid Valve (Accumulator Oil Return)
WATER HUB PCB	Printed circuit board (Water related load control)	COMP SUCTION1 (10K)	Temp. Sensor (COMP Suction TEMP. 1_10Kohm)	4WAY V/V	Solenoid Valve (4Way Valve)
MAIN PCB	Printed circuit board (main)	COMP SUCTION2 (10K)	Temp. Sensor (COMP Suction TEMP. 2_10Kohm)	CCH1	Crank Case Heater (COMP1)
HUB PCB	Printed circuit board (hub)	CONTROL BOX TEMP	Temp. Sensor (Inside TEMP. of Control Box_10Kohm)	CCH2	Crank Case Heater (COMP2)
COMM PCB	Printed circuit board (Communication)	CONDENSER OUT (10K)	Temp. Sensor (Condenser Out Temp._10Kohm)	MAIN COOLING	Solenoid Valve (Main Cooling)
COMP1	Motor (Compressor1)	COMP TOP1 (200K)	Temp. Sensor (Compressor1_200Kohm)	F101 250V/T2A	FUSE (INVERTER PBA)
COMP 2	Motor (Compressor2)	COMP TOP2 (200K)	Temp. Sensor (Compressor2_200Kohm)	690V/T40A	FUSE (NOISE FILTER)
EVI V/V 1	Solenoid Valve (EVI 1)	DISCHARGE1 (200K)	Temp. Sensor (COMP Discharge.1_200Kohm)	F101 250V/T2.5A	FUSE (WATER HUB)
EVI V/V 2	Solenoid Valve (EVI 2)	DISCHARGE2 (200K)	Temp. Sensor (COMP Dischager.2_200Kohm)	F701 250V/T1A	FUSE (WATER HUB)
EVI EEV	Enhanced Vapor Injection Electrical Expansion Valve	LIQUID TUBE (10K)	TEMP. Sensor (Liquid Tube Temp._10Kohm)		

NOTE

- This wiring diagram applies only to the water-cooled DVM S Water.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
- When operating, don't short circuit 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, N : The wire quantity

6. Electrical Wiring Diagram

AM300KXWA✳✳ (30HP)



INV PBA1	Printed circuit board(Inverter PBA1)	EEV1	Electrical Expansion Valve 1	LIQUID(10K)	Temp. Sensor (Liquid Tube Temp._10Kohm)
INV PBA2	Printed circuit board(Inverter PBA2)	EEV2	Electrical Expansion Valve 2	HOTGAS1 V/V	Solenoid Valve (Hot Gas Bypass1)
EMI PBA1	Printed circuit board(Noise Filter1)	EVI-OUT(10K)	Temp. Sensor (EVI-out_10kohm)	EVI BYPASS V/V	Solenoid Valve (EVI Bypass)
EMI PBA2	Printed circuit board(Noise Filter2)	EVI-IN(10K)	Temp. Sensor (EVI-in_10Kohm)	RETURN V/V	Solenoid Valve (Accumulator Oil Return)
WATER HUB PCB	Printed circuit board(Water related load control)	SUCTTION1(10K)	Temp. Sensor (Suction Temp.1_10Kohm)	4WAY V/V	Solenoid Valve (4Way Valve)
MAIN PBA	Printed circuit board(main)	SUCTTION2(10K)	Temp. Sensor (Suction Temp.2_10Kohm)	CCH1	Crank Case Heater(COMP1)
HUB PBA	Printed circuit board(hub)	SNOW SENSOR	SNOW SENSOR	CCH2	Crank Case Heater(COMP2)
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)	Temp. Sensor (Ambient Temp._10Kohm)	OD EEV V/V	Solenoid Valve (Outdoor EEV)
FAN1	Motor (Outdoor Fan1)	COND(10K)	Temp. Sensor (Cond Out Temp._10Kohm)	690V/T56A	FUSE(NOISE FILTER)
FAN2	Motor (Outdoor Fan1)	TOP1(200K)	Temp. Sensor (Compressor Top1_200Kohm)	MODE CHANGE	Connector (Remote switching cool/heat selector)
EVI V/V 1	Solenoid Valve(EVI 1)	TOP2(200K)	Temp. Sensor (Compressor Top2_200Kohm)	EXT CON	Connector (Output EXT CON)
EVI V/V 2	Solenoid Valve(EVI 2)	DIS1(200K)	Temp. Sensor (Discharge Temp.1_200Kohm)	ERROR/COMP EXT	Connector (Output ERROR/COMP EXT CON)
EVI EEV	Enhanced Vapor Injection Electrical Expansion Valve	DIS2(200K)	Temp. Sensor (Discharge Temp.2_200Kohm)		

NOTE

- This wiring diagram applies only to the water-cooled DVM S Water.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
- When operating, don't short circuit 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, N : The wire quantity

7. Sound Level

Summary

Single

Capacity		Model	Sound Pressure dB(A)		Sound Power
HP	KW		Cooling	Heating	(dBA)
8	22.4	AM080MXWANR	45	46	60
10	28.0	AM100MXWANR	47	49	62
12	33.6	AM120MXWANR	47	50	67
20	56.0	AM200MXWANR	50	52	70
30	84.0	AM300KXWANR	56	58	75

Module (Premium energy efficiency type)

Capacity		Model	Sound Pressure dB(A)		Sound Power
HP	KW		Cooling	Heating	(dBA)
16	44.8	AM160MXWANR2	49	50	64
18	50.4	AM180MXWANR2	50	51	65
22	61.6	AM220MXWANR2	51	53	69
24	67.2	AM240MXWANR2	51	54	71
26	72.8	AM260MXWANR2	51	53	66
28	78.4	AM280MXWANR2	52	53	71
30	84.0	AM300MXWANR2	52	54	71
32	89.6	AM320MXWANR2	52	55	72
34	95.2	AM340MXWANR2	52	55	71
36	100.8	AM360MXWANR2	53	54	71
38	106.4	AM380MXWANR2	53	55	71
40	112.0	AM400MXWANR2	54	56	74
42	117.6	AM420MXWANR2	54	56	73
44	123.2	AM440MXWANR2	54	56	74
48	134.4	AM480MXWANR2	54	56	74
50	140.0	AM500MXWANR2	54	56	74
52	145.6	AM520MXWANR2	54	57	74
60	168.0	AM600MXWANR2	55	57	75

7. Sound Level

Summary

Module (Premium compact type)

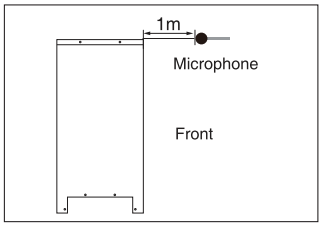
Capacity		Model	Sound Pressure dB(A)		Sound Power
HP	KW		Cooling	Heating	(dBA)
38	106.4	AM380MXWANR1	57	59	76
40	112.0	AM400MXWANR1	57	59	76
42	117.6	AM420MXWANR1	57	59	76
46	128.8	AM460MXWANR1	57	59	76
48	134.4	AM480MXWANR1	57	59	76
50	140.0	AM500MXWANR1	57	59	77
52	145.6	AM520MXWANR1	57	60	76
54	151.2	AM540MXWANR1	57	60	77
58	162.4	AM580MXWANR1	58	60	77
60	168.0	AM600MXWANR1	60	62	79
62	173.6	AM620MXWANR1	58	60	77
68	190.4	AM680MXWANR1	60	62	79
70	196.0	AM700MXWANR1	60	62	79
80	224.0	AM800MXWANR1	60	62	79
90	252.0	AM900MXWANR1	61	63	80

NOTE

- Sound Pressure Level
  - Sound Pressure level is obtained in an anechoic room.
  - Sound Pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound Pressure level may differ depending on operation condition.
  - dBA = A-weighted sound power 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

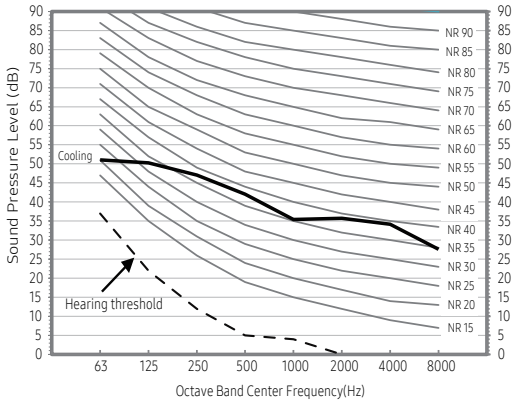


Unit: dB(A)

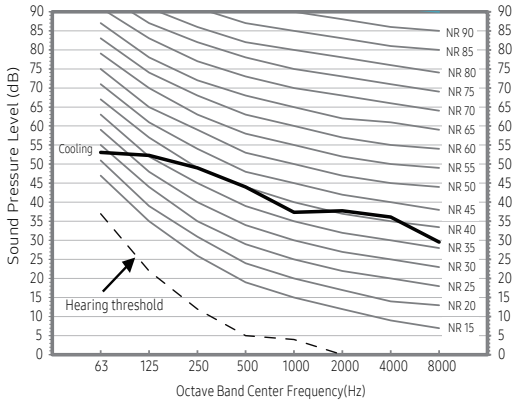
Model	Cooling
AM080MXWA✳✳	45
AM100MXWA✳✳	47
AM120MXWA✳✳	47
AM200MXWA✳✳	50
AM300KXWA✳✳	56

NR Curve

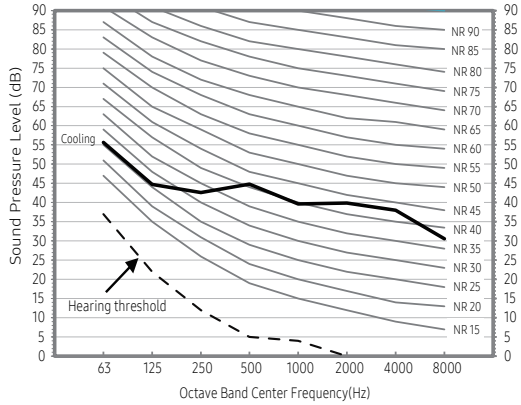
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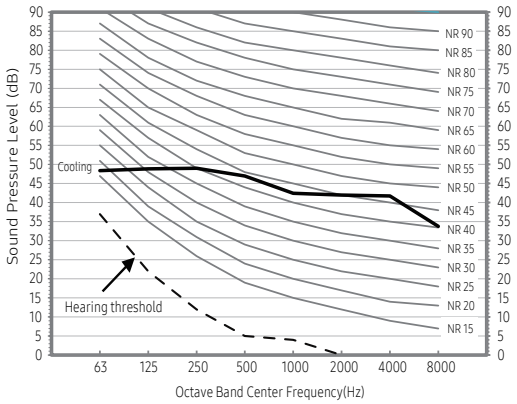
2) AM100MXWA✳✳



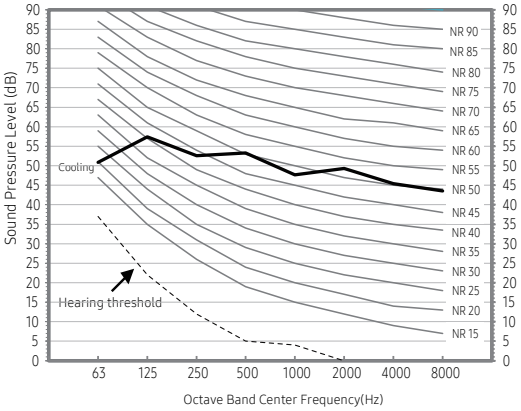
3) AM120MXWA✳✳



4) AM200MXWA✳✳



5) AM300KXWA✳✳



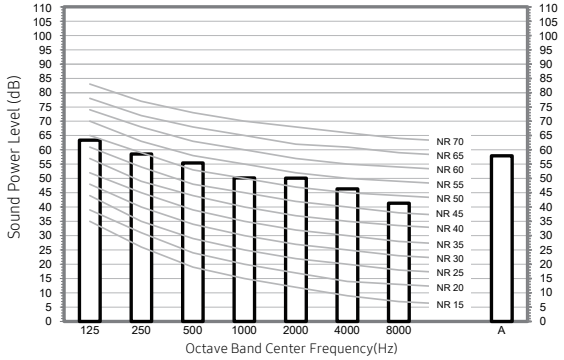
7. Sound Data

Sound Power Level

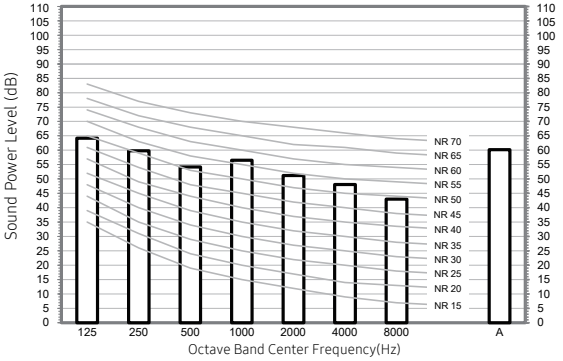
Unit: dB(A)

Model	Power
AM080MXWA✳✳	60
AM100MXWA✳✳	62
AM120MXWA✳✳	67
AM200MXWA✳✳	70
AM300KXWA✳✳	75

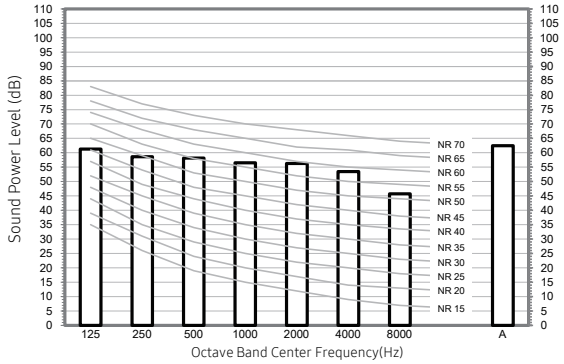
1) AM080MXWA✳✳



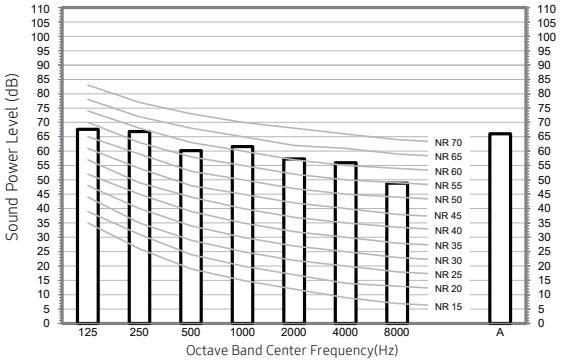
2) AM100MXWA✳✳



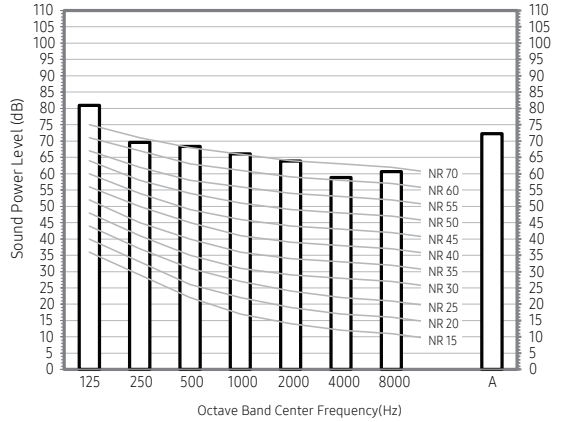
3) AM120MXWA✳✳



4) AM200MXWA✳✳

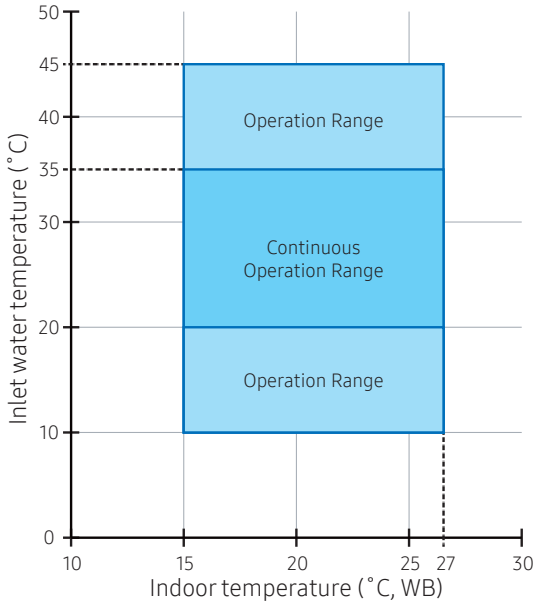


5) AM300KXWA✳✳



8. Operating Range

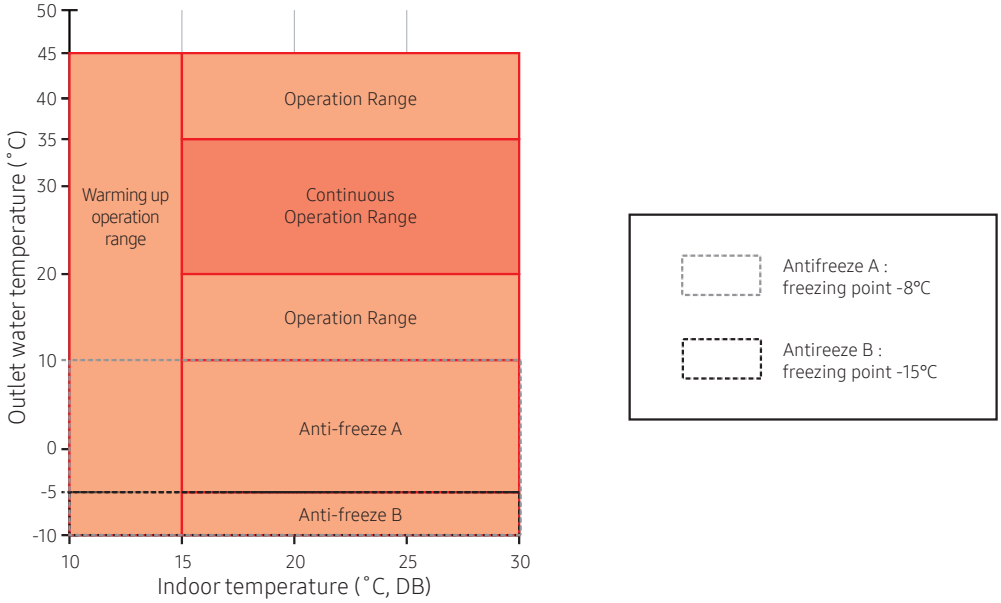
Cooling



NOTE

- In the range except for the continuous operation range, the protection control can be active depending on the heat source flow rate. (It is not a failure but a way of cycle protection against hot or cold water.)

Heating

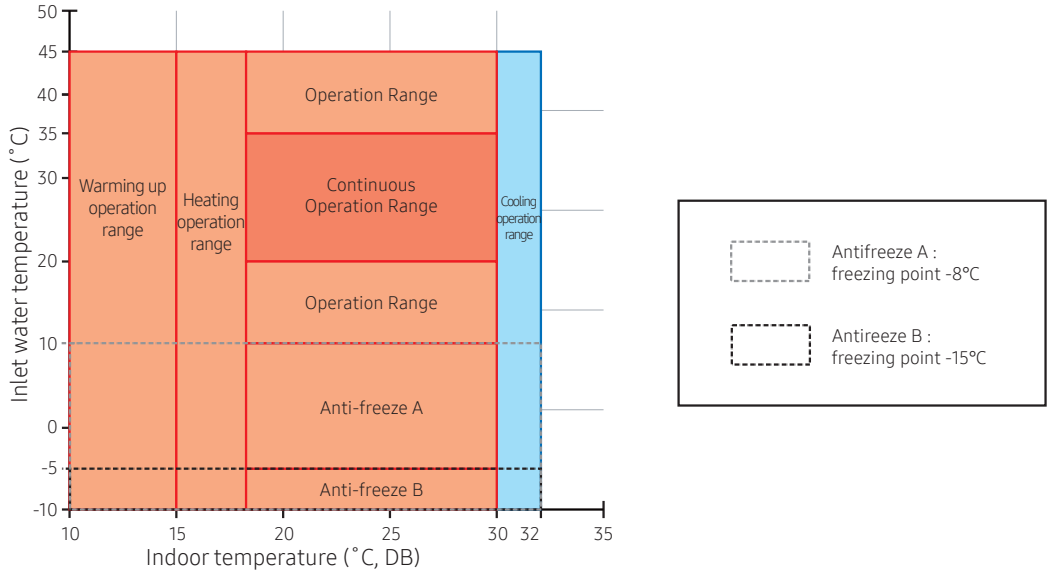


NOTE

- In the range except for the continuous operation range, the protection control can be active depending on the heat source flow rate. (It is not a failure but a way of cycle protection against hot or cold water.)
- For use in the antifreeze condition, the antifreeze concentration must be rigidly managed.

8. Operating Range

Heat Recovery



NOTE

- In the range except for the continuous operation range, the protection control can be active depending on the heat source flow rate. (It is not a failure but a way of cycle protection against hot or cold water.)
- For use in the antifreeze condition, the antifreeze concentration must be rigidly managed.

Design standard

Type	Circulating water	Operation	Intel water temperature (°C)		
			Standard	Main usage	Operation limit
Heat source water	Water loop	Cooling	30	20~35	10~45
		Heating	20	20~35	
Ground heat source [1)]	Ground water	Cooling	15	15~35	Cooling: 10~45 Heating: -5~45 (Heating: -5~45)[2)]
		Heating	10	5~25	
	Ground loop	Cooling	25	15~35	
		Heating	5	5~25	

1) Anti-freeze must be used when temperature of water inlet for heating is below 10°C or ground heat is used. Maintain approprate concentation level of anti-freeze according to temperature of water inlet.

2) Strict management of anti-freeze concentration level is required. Consult Samsung before application.

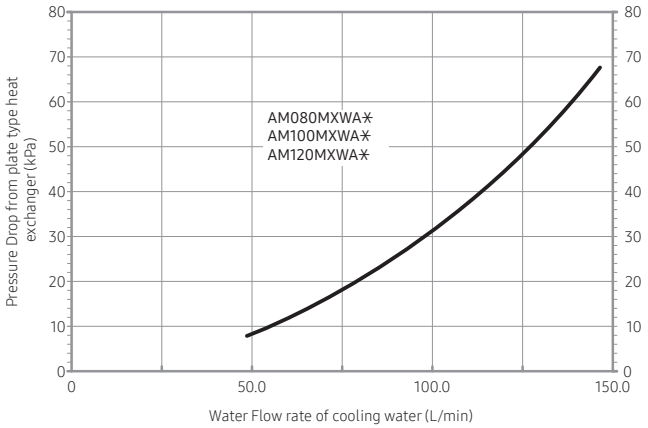
Anti-freeze standard

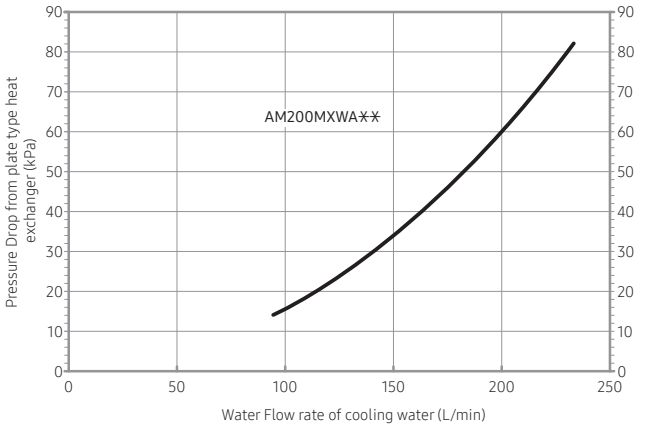
Type of anti-freeze (Based on 15°C)	Concentration [% Wt.]	Freezing temperature [°C]	Density [kg/m^3]
Ethylene glycol	10	-3.2	1014.87
	20	-7.8	1031.39
	30	-14.1	1047.07
	40	-22.3	1061.65
Propylene glycol	10	-3.3	1009.75
	20	-7.1	1020.91
	30	-12.7	1030.51
	40	-21.1	1038.65

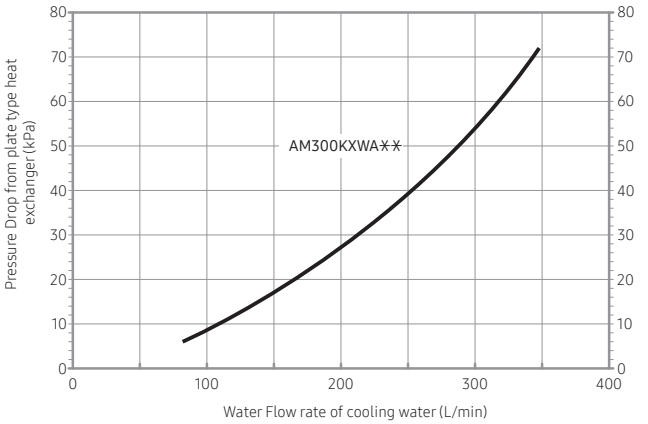
8. Operating Range

Water Flow rate

Section	Water Flow Rate (LPM)				
	8HP	10HP	12HP	20HP	30HP
Standard condition	80	96	114	190	285
Operation range	48~96	58~115	68~137	114~228	170~342





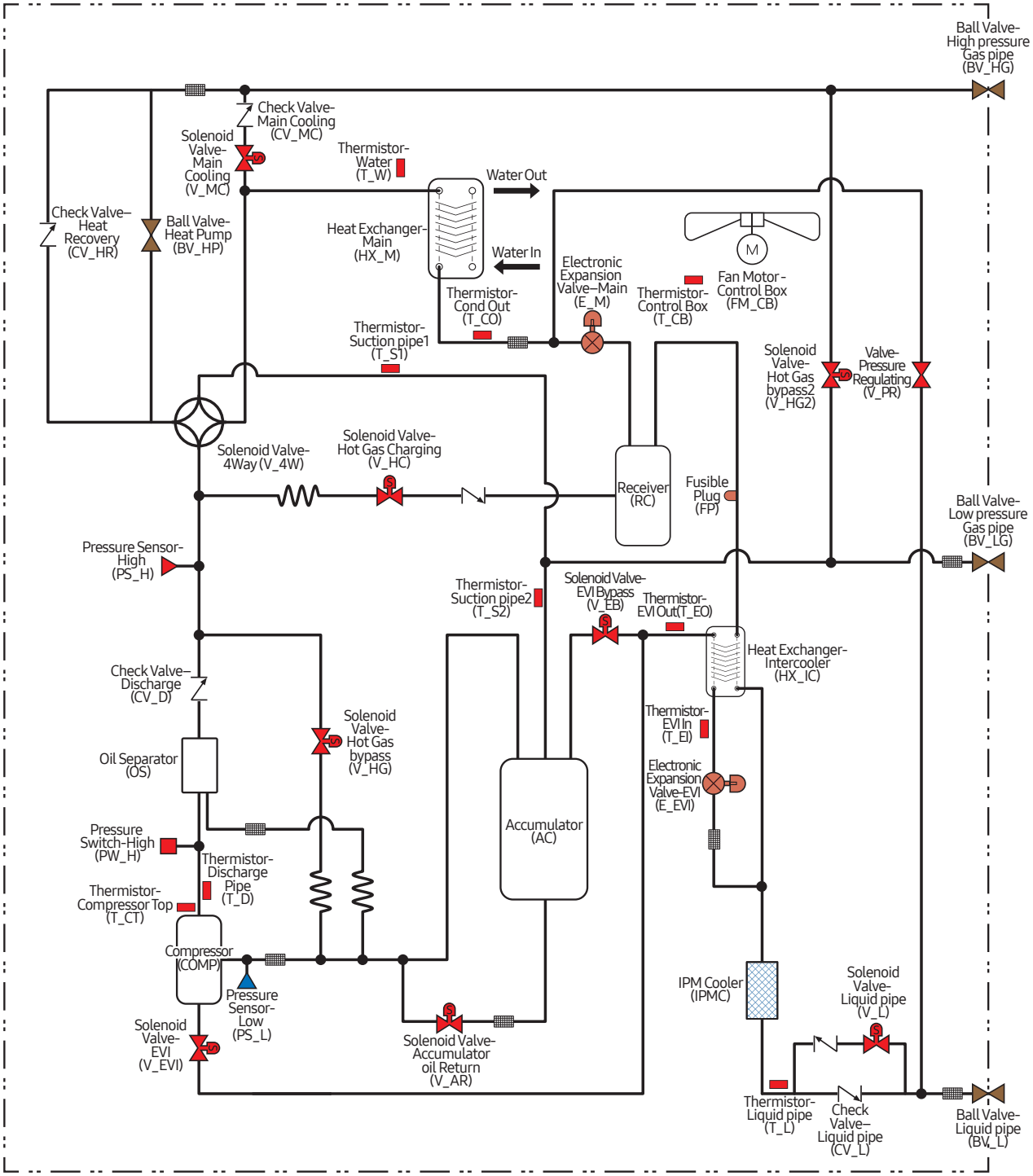


NOTE

- When the water flow rate is out of the operation range, stop the outdoor unit and take care of the cause before restarting the operation. (Allowable range: 60~120% of the standard water flow rate)
- For the piping work, set the pump capacity considering the pressure drop of the plate heat exchanger to maintain a proper flow rate.

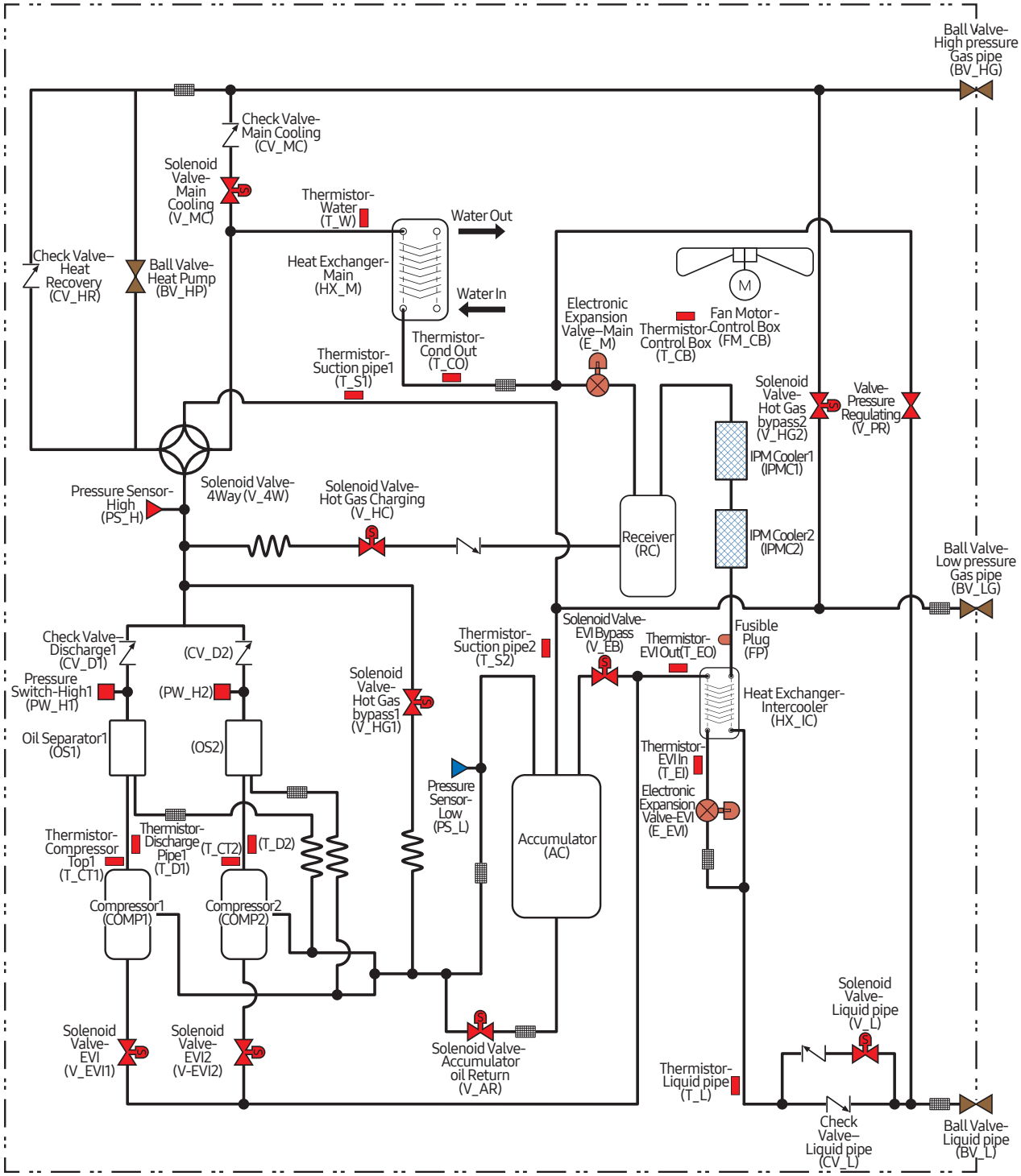
9. Piping Diagram

AM080/100/120MXWA✳✳



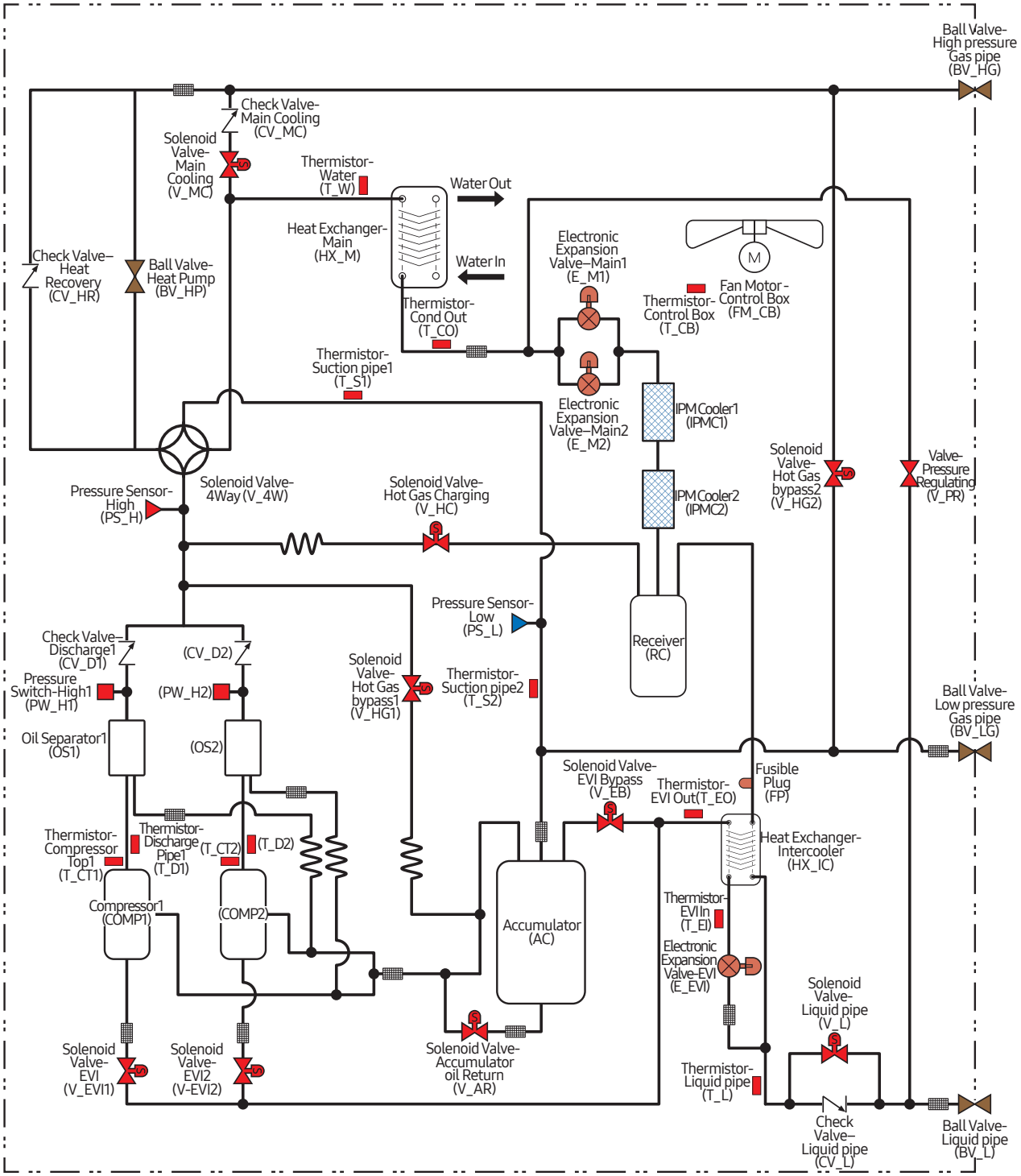
9. Piping Diagram

AM200MXWA✳✳



9. Piping Diagram

AM300KXWA✳✳



10. Installation

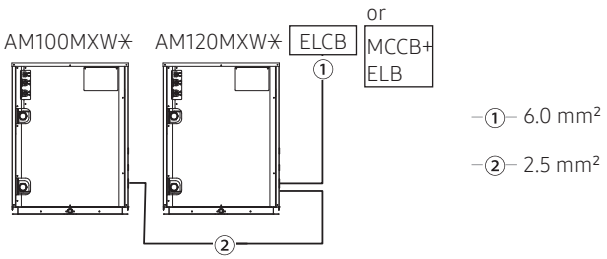
Electrical wiring work

Specification of the circuit breaker and power cable

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)

※ 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)

ex) Outdoor unit installation (AM100MXW✳ + AM120MXW✳)



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 Ssc is greater than or equal to Ssc(*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 Ssc greater than or equal to Ssc(*2).

[Ssc (*2)]

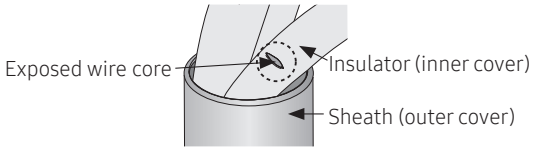
Model	Ssc [MVA]
AM080MXW✳✳✳	3.9
AM100MXW✳✳✳	3.9
AM120MXW✳✳✳	4.8
AM200MXW✳✳✳	7.7
AM300KXWA✳✳	11.5

10. Installation

CAUTION

Caution for electrical work

- 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>

Power and communication cable configuration

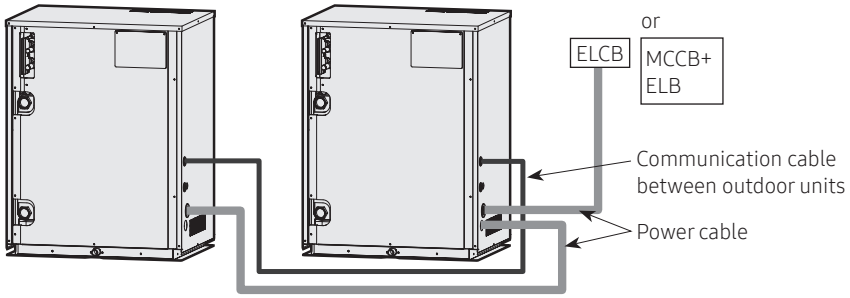
▶ Main power and the ground cable must be withdrawn through the knock-out hole on the bottom-right or right side of the cabinet.

▶ 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.

▶ Make sure that power and communication cables do not block the front panel.



10. Installation

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 2 flexible conduit	Galvanized steel sheet and Soft PVC compound	When the protection tube is installed outdoor and exposed to outside so there are risk of damage to the protection tube and extra waterproof is needed

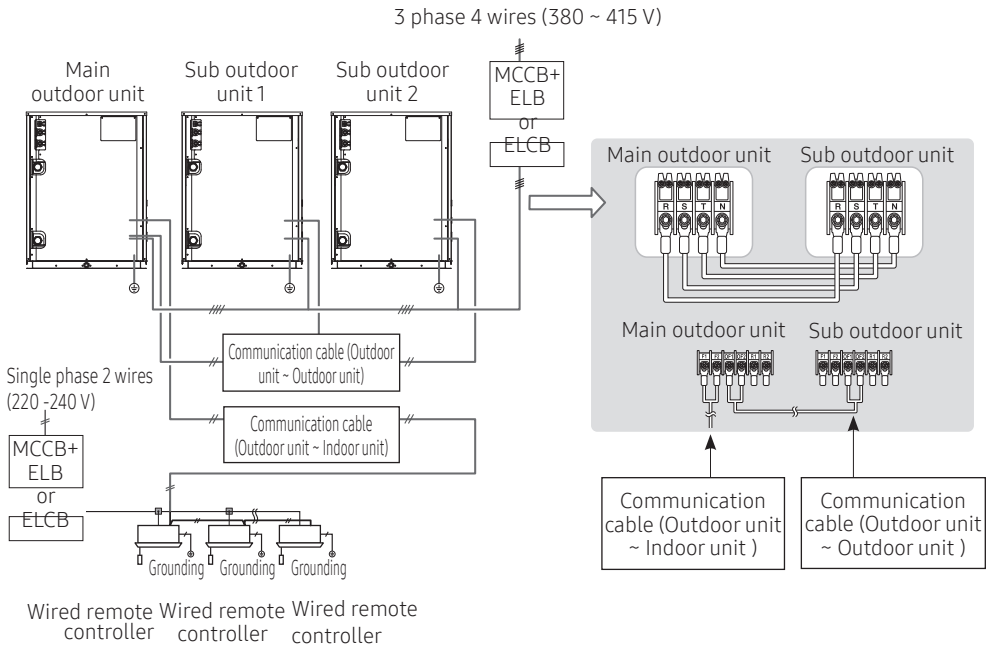
CAUTION

Caution for perforating the knock-out hole

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

Power wiring diagram

Supplying 3 phase 4 wires (380-415 V~)



▶ Connect a power cable of the outdoor unit after checking that R-S-T-N (3 phase 4 wire) is properly connected. (If the 380-415 V power is supplied to the N phase, PCB and other electrical part will be damaged.)

▶ Communication cable between indoor and outdoor units and communication cable between outdoor units has no polarity.

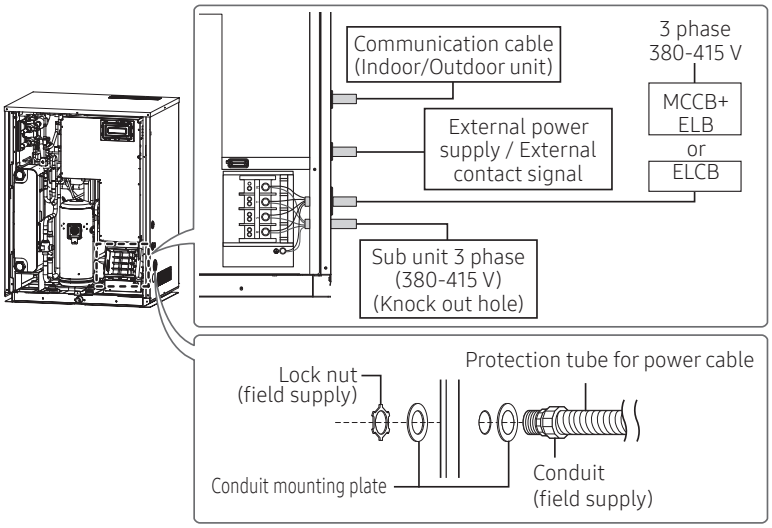
▶ Arrange the cables with a cable tie.

※ ELCB and ELB must be installed since there is risk of electric shock or fire when they are not installed.

10. Installation

Connecting the power terminal

- ▶ Connect the cables to the terminal board with solderless ring terminals.
- ▶ Properly connect the cables by using certified and rated cables and make sure to fix them properly so that external force is not applied to the terminal.
- ▶ Use a driver and wrench that can apply the rated torque when tightening the screws on the terminal board.
- ▶ Tighten the terminal screws by complying rated torque value. If the terminal is loose, fire can occur due to arc heat generation and if the terminal is too tight, terminal board could get damaged.



Screw	Tightening torque for terminal (N·m)	
M4	1.2~1.8	Single phase (220-240 V) power cable
M8	5.5~7.3	3 phase (380-415 V) power cable

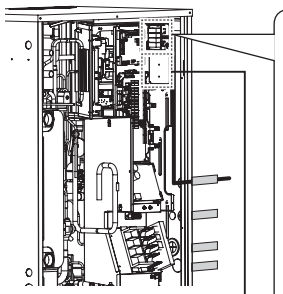
CAUTION

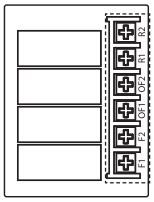
- When removing the outer sheath of the power supply cable, be careful not to scratch the inner sheath of the cable.
- Make sure that more than 20mm of the outer sheath of the indoor unit power and communication cable are inside the electrical component box.
- Install the communication cable separately from power cable and other communication cables.

10. Installation

Installing the Solution device

▶ When the number of indoor units installed with the outdoor unit is 16 or less





R2	Solution device terminal
R1	
OF2	Communication cable terminal (Outdoor unit ~ Outdoor unit)
OF1	
F2	Communication cable terminal (Outdoor unit ~ Indoor unit)
F1	

※ When connecting the communication cable, use a wire holder to fix it.

▶ Location of the interface module

※ To connect old communication type upper level controller, interface module must be installed. For detail instruction of installation, refer to the installation manual of corresponding interface module.

Space requirement for installation

Minimum space requirement for installation

▶ Secure minimum installation space as shown in the following figures, considering service area and path for people etc.

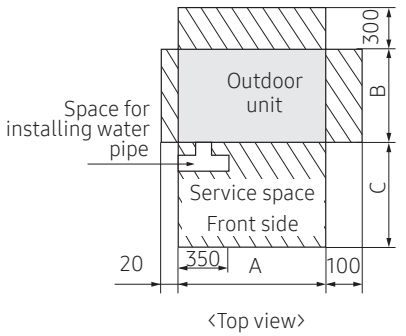
- If the installation space is narrow, installer or other worker may get injured during work and may also cause problem to the product.

▶ If the conditions does not meet the space requirement in this manual, please contact qualified installation agent.

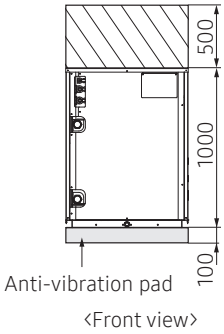
Single installation

When the water pipe passes through top of the product

(Unit : mm)



〈Top view〉

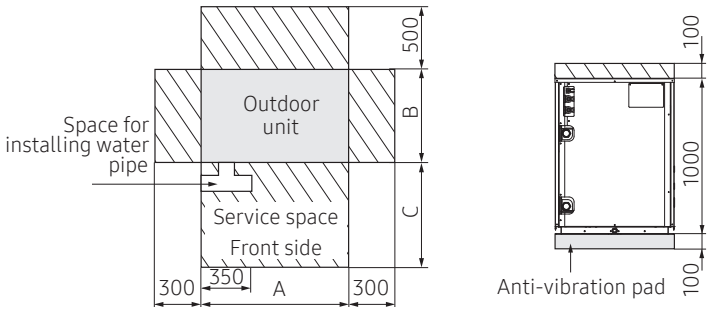


〈Front view〉

10. Installation

When the water pipe passes through back of the product

(Unit : mm)

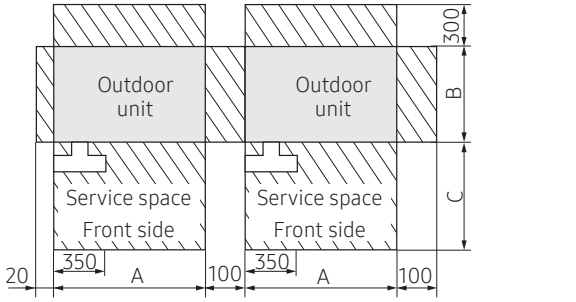


<Top view>

<Front view>

Module or continuous installation

(Unit : mm)



<Top view>

Model name of outdoor unit	A	B	C
AM080/100/120MXWA✳✳	770	545	600
AM200MXWA✳✳ / AM300KXWA✳✳	1100	545	600

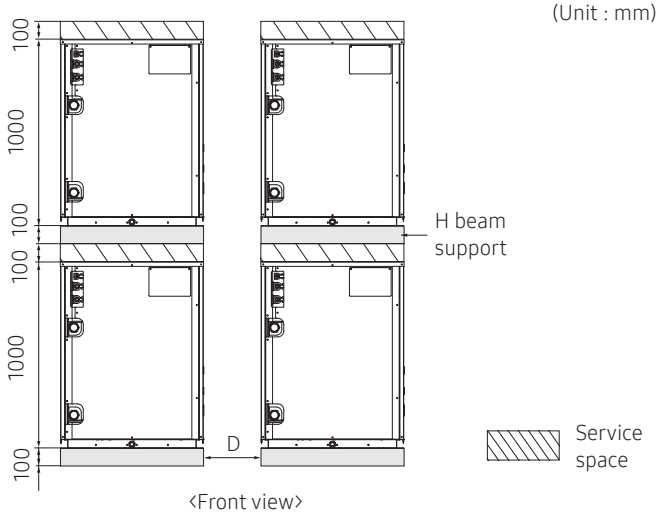
CAUTION

- If the outdoor unit is needed to be installed close to the walls unavoidably, prevent the vibration from being transferred to the walls with cushioning materials etc.

10. Installation

Double installation

(Unit : mm)



<Front view>

▶ For the double installation, service space is required for the front, rear, and sides of the product. For the size of the service space, refer to the service space size of single, module or continuous installation.

▶ Clear enough space for D (space between outdoor units), so that water pipes connected to outdoor units does not block the front side of the outdoor units next to it.

Base construction and installation of the outdoor unit

CAUTION

- Make sure to remove the wooden pallet before installing the outdoor unit. If you do not remove the wooden pallet, there is risk of fire during welding the pipes. If the outdoor unit is installed with wooden pallet on, and it was used for long period time, wooden palette may break and cause electrical hazard or high pressure may damage the pipes.

※ Fix an outdoor unit firmly on the base ground with anchor bolts.

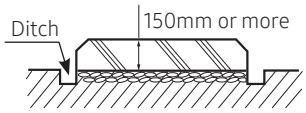
※ Manufacturer is not responsible for the damage occurred by not following the installation standards.

1. Make sure that the height of the base ground is 150 mm or higher to protect the outdoor unit from rain water or other external conditions. Also, install a draining pit around the base ground and connect the drain pipe to the drainage.
2. Considering the vibration and weight of the outdoor unit, strength of the base ground must be strong to prevent noise and the top surface of it should be flat.
3. Base ground should be 1.5 times larger than the bottom of the outdoor unit.
4. Outdoor unit must be fixed firmly so that it can withstand the wind speed of 30 m/s. If you cannot fix the outdoor unit on the base ground, fix it by side or use extra structure.
5. In heating operation, defrost water may form so you must really care about the drainage and waterproofing the floor. To prevent defrost water from stagnating or freezing, construct a drainage with over 1/50 slope. (Ice may form on the floor in winter time.)
6. It is necessary to add wire mesh or steel bar during concrete construction for the base ground to prevent damages or cracks.

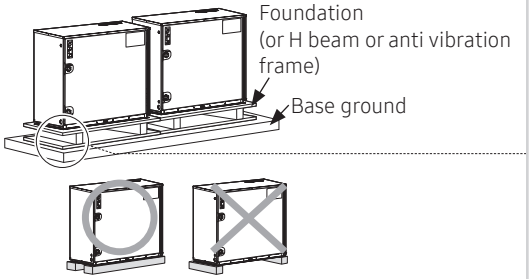
10. Installation

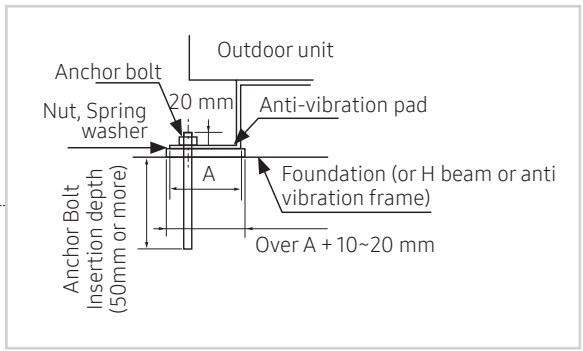
7. When installing multiple outdoor units at the same place, construct a H beam or an anti-vibration frame on the base ground to install the outdoor unit.
8. After installing a H beam or an anti-vibration frame, apply corrosion protection and other necessary coating.
9. When concrete construction for outdoor unit installation is completed, install an anti-vibration pad (t=20 mm or more) or an anti-vibration frame to prevent vibration of the outdoor unit from transferring to the base ground.
10. Place the outdoor unit on a H beam or an anti-vibration frame and fix it with the bolt, nut and washer. (The bearing force has to be over 3.5 kN)

Foundation

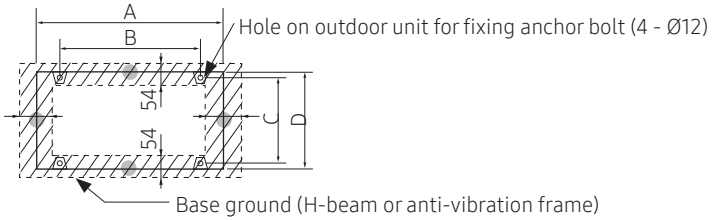


Outdoor unit installation





Fixing the outdoor unit



(Unit : mm)

Classification	Small type	Large type
Models	AM080/100/120MXWA✳✳	AM200MXWA✳✳ / AM300KXWA✳✳
A	770	1100
B	656	995
C	523	515
D	550	550

※ For adding the anti-vibration frame on the base ground, the specification for the fixing hole depends on the specification of the anti-vibration frame.

10. Installation

Refrigerant pipe installation

CAUTION

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

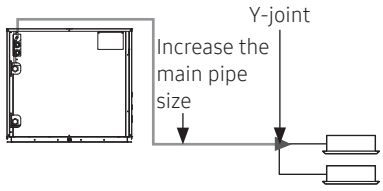
Refrigerant pipe work

- ▶ The length of refrigerant pipe should be as short as possible and the height difference between an indoor and outdoor unit should be minimized.
- ▶ Piping work must be done within allowable piping length, height difference, and the allowable length after branching.
- ▶ The pressure of the R-410A is high. Use only certified refrigerant pipe and follow the installation method.
- ▶ After installing the pipes, calculate the total length of the pipe to check if additional refrigerant is needed. When you need to charge the additional refrigerant, make sure to use R-410A refrigerant.
- ▶ The inside of the refrigerant pipe must be clean and contain no harmful ions, oxides, dust, iron particles or moisture.
- ▶ Use tools and accessories compatible with R-410A refrigerant gas.

<table>
<tr><th>Tool</th><th>Installation process/purpose</th><th colspan="2">Compatibility with conventional tool</th></tr>
<tr><td>Pipe cutter</td><td rowspan="5">Refrigerant pipe installation</td><td>Pipe cutting</td><td rowspan="2">Compatible</td></tr>
<tr><td>Flaring tool</td><td>Pipe flaring</td></tr>
<tr><td>Refrigerant machine oil</td><td>Apply refrigerant oil on flared part</td><td>Exclusive ether oil, ester oil, alkali benzene oil or synthetic oil</td></tr>
<tr><td>Torque wrench</td><td>Connect flare nut with pipe</td><td rowspan="4">Compatible</td></tr>
<tr><td>Pipe bender</td><td>Pipe bending</td></tr>
<tr><td>Nitrogen gas</td><td rowspan="2">Air tightness test</td><td>Prevent oxidation within the pipe</td></tr>
<tr><td>Welder</td><td>Pipe welding</td></tr>
<tr><td>Manifold gage</td><td rowspan="2">Air tightness test ~ additional refrigerant charging</td><td rowspan="2">Vacuuming, charging refrigerant and checking operation</td><td>Need exclusive one to prevent mixture of R-22 refrigerant oil use and also the measurement is not available due to high pressure</td></tr>
<tr><td>Refrigerant charging hose</td><td>Need exclusive one since there is risk of refrigerant leakage or contamination</td></tr>
<tr><td>Vacuum pump</td><td colspan="2">Pipe drying</td><td>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).</td></tr>
<tr><td>Scale for refrigerant charging</td><td colspan="2" rowspan="2"></td><td>Compatible</td></tr>
<tr><td>Gas leak detector</td><td>Gas leak test</td><td>Need exclusive one
(Ones used for R-134a is compatible)</td></tr>
<tr><td>Flare nut</td><td colspan="3">Must use the flare nut supplied with the product. Refrigerant leakage may occur when the conventional flare nut for R-22 is used.</td></tr>
</table>

10. 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 the outdoor unit and the farthest indoor unit exceeds 90m, the size of the pipe (main pipe) connecting the outdoor unit to the first branch joint must be increased by one grade.
- ▶ For HR System, when the pipe length (including elbow) between an outdoor unit and the farthest indoor unit exceeds 90 m, you must increase the size of the liquid pipe by one grade among the pipes(main pipe) which connects between the outdoor unit to the first branch joint

Main pipe size (Outer diameter, mm) If total pipe length is less than 90 m	Main pipe size (Outer diameter, mm) If total pipe length is 90 m or longer
9.52	12.70
12.70	15.88
15.88	19.05
19.05	22.22
22.22	25.40 note1)
28.58	31.75 note2)
34.92	38.10 note3)
41.28	53.98

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

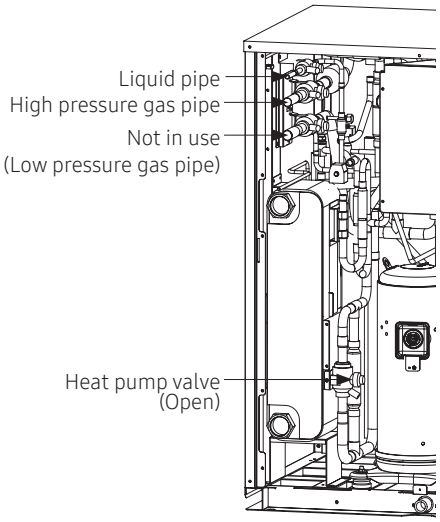
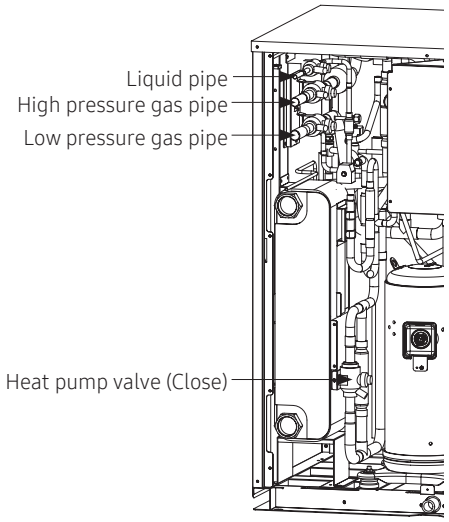
Note2) If Ø 31.75 pipe is not available on site, use Ø 34.92 pipe.

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

10. Installation

Pipe installation for an outdoor unit

1. Please read the following instructions to connect the refrigerant pipe to an outdoor unit.
   - For H/P System, connect liquid and gas pipes to an indoor unit.
   - For HR System, connect liquid and high/low pressure gas pipes to a MCU. Close the internal heat pump valve and set the following option switch.
   - For module installation, make sure that each heat pump valve and K5 switch setting is adjusted according to each purpose. (When installing outdoor units in module, E573 error may occur when settings are different between outdoor units.)

Classification		H/P System	HR System
Service valve			
Heat pump valve		Open (Factory default)	Close (Set during installation)
Option switch	A Type PBA (K5)	ON (Factory default)	OFF (Set during installation)
	B Type PBA Key mode (K1+K2)	Set as "ht 00" (Factory default)	Set as "ht 01" (Set during installation)

※ Refer to the outdoor unit key function option switch and key function.

⚠ CAUTION

Caution for welding the pipe to an outdoor unit

- When welding the pipe, the unit may get damaged by the heat and flame from welding. Use a flame proofing cloth to protect the unit from a brazing fire or flame.
- The O-ring and Teflon packing inside service valve may get damaged by the heat from welding. Wrap the bottom side of the service valve with a wet cloth and weld it. Also, water dripping from the wet cloth may interrupt the welding. Make sure the water does not drip from the wet cloth.
- Make sure that connected pipes does not interrupt each other or make contact with the product. If they contact each other or contact with the outdoor unit, vibration will occur and it may cause damage to the pipes.
- When removing the sealed pipe on the bottom side of the service valve, cut it with a pipe cutter first and then start the welding. When the sealed pipe is welded without cutting, you may get injured by the refrigerant within the pipe.

10. Installation

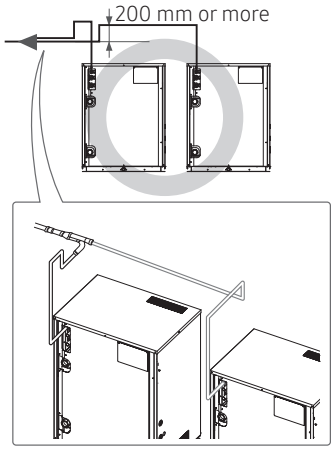
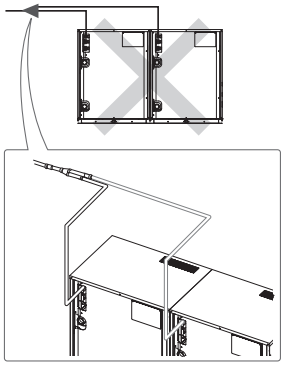
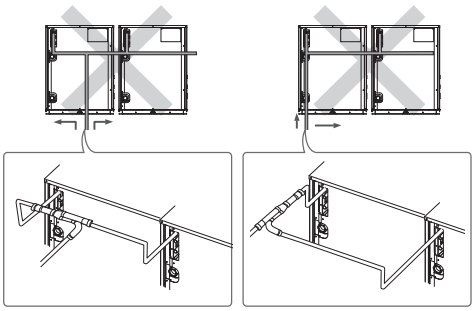
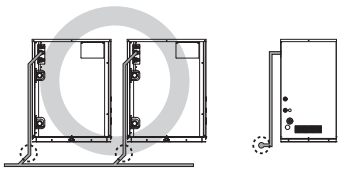
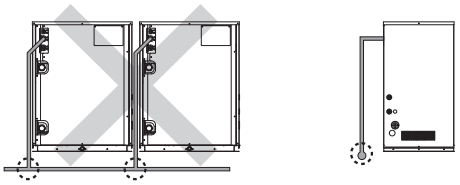
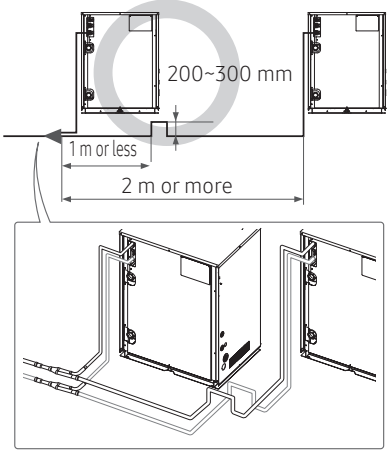
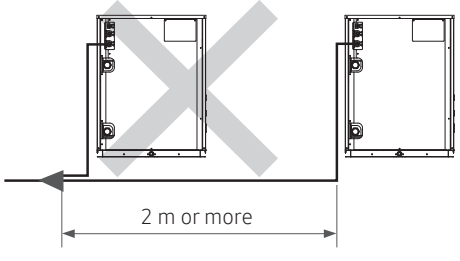
Refrigerant pipe installation

2. Connect refrigerant pipes between outdoor units.

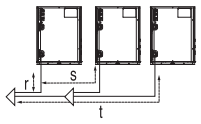
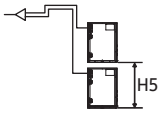
▶ To connect pipes between outdoor units, branch joints (that needs to be purchased separate) must be installed.

※ For optimal distribution of the refrigerant, you must use Y-joint for connecting outdoor units. (Do not use T-joint)

▶ When outdoor units are installed in module, there are no restrictions on the order of installation.

Caution	Correct installation	Incorrect installation
When refrigerant pipe is installed at higher level than the pipe connection part of the outdoor unit, you must install a trap at the gas pipe.		 
Branch joint between outdoor units must be installed horizontally.		
When the piping length between outdoor unit and the branch joint exceeds 2 m, install a vertical trap as show in the figure.		

10. Installation

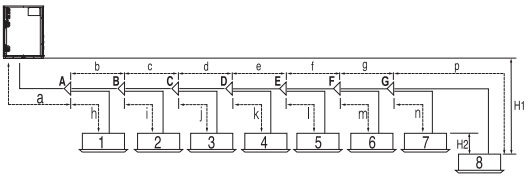
<table>
<tr><th colspan="5">Classification</th><th colspan="2">Example</th><th>Remarks</th></tr>
<tr><td rowspan="8">Maximum allowable pipe length</td><td rowspan="4">Outdoor unit ~ Indoor unit</td><td rowspan="3">Actual pipe length (Equivalent length)</td><td rowspan="3">170 m and below (190 m and below)</td><td>Installing only with Y-joint</td><td>a+b+c+d+e+f+g+p ≤ 170 (190) m</td><td rowspan="3">Equivalent length
• Y-joint: 0.5 m
• Distribution header: 1 m</td></tr>
<tr><td>Installing with Y-joint and distribution header</td><td>a+b+h ≤ 170 (190) m,
a+i+k ≤ 170 (190) m</td></tr>
<tr><td>Installing only with distribution header</td><td>a+i ≤ 170 (190) m</td></tr>
<tr><td rowspan="3">Total length of pipe (m)</td><td rowspan="3">500 m or less</td><td>Installing only with Y-joint</td><td>a+b+c+d+e+f+g+p+h+
i+j+k+l+m+n ≤ 500 m</td><td></td></tr>
<tr><td>Installing with Y-joint and distribution header</td><td>a+b+c+d+e+f+g+h+
i+j+k ≤ 500 m</td><td></td></tr>
<tr><td>Installing only with distribution header</td><td>a+b+c+d+e+f+g+h+i ≤ 500 m</td><td></td></tr>
<tr><td rowspan="3">Outdoor unit ~ Outdoor unit (Module installation)</td><td>Pipe length</td><td>10 m or less</td><td colspan="2">r ≤ 10 m, s ≤ 10 m, t ≤ 10 m</td><td rowspan="2">  </td></tr>
<tr><td>Equivalent length</td><td>13 m or less</td><td colspan="2">r ≤ 13 m, s ≤ 13 m, t ≤ 13 m</td></tr>
<tr><td>High difference</td><td>1.5 m or less</td><td colspan="2">H5 ≤ 1.5 m</td><td>  </td></tr>
<tr><td rowspan="2">Maximum allowable height difference</td><td>Outdoor unit ~ Indoor unit</td><td colspan="2">50/40 m Note 2)</td><td colspan="2">H1 ≤ 50/40 m</td><td></td></tr>
<tr><td>Indoor unit ~ Indoor unit</td><td colspan="2">50 m or less</td><td colspan="2">H2 ≤ 50 m</td><td></td></tr>
<tr><td rowspan="2">Maximum allowable length after branch joint</td><td rowspan="2">First branch joint ~ Farthest Indoor unit</td><td rowspan="2">Pipe length</td><td>45 m or less</td><td colspan="2">b+c+d+e+f+g+p ≤ 45 m, i ≤ 45 m</td><td></td></tr>
<tr><td>45 m ~ 90 m note 1)</td><td colspan="2">Required conditions must be satisfied</td><td></td></tr>
</table>

<table>
<tr><th colspan="4">EEV kit</th><th colspan="2">Model name</th><th>Remarks</th></tr>
<tr><td rowspan="10">EEV kit ~ Indoor unit</td><td rowspan="10">Actual pipe length</td><td rowspan="2">2 m</td><td>MEV-E24SA</td><td rowspan="2">1 indooor</td><td rowspan="10">Apply to products without EEV (Wall mount & ceiling)</td></tr>
<tr><td>MEV-E32SA</td></tr>
<tr><td rowspan="8">20 m or less</td><td>MXD-E24K132A</td><td rowspan="3">2 indooor</td></tr>
<tr><td>MXD-E24K200A</td></tr>
<tr><td>MXD-E32K200A</td></tr>
<tr><td>MXD-E24K232A</td><td rowspan="4">3 indooor</td></tr>
<tr><td>MXD-E24K300A</td></tr>
<tr><td>MXD-E32K224A</td></tr>
<tr><td>MXD-E32K300A</td></tr>
</table>

※ Please refer to the EEV Kit manual.

10. Installation

Note 1) Required condition

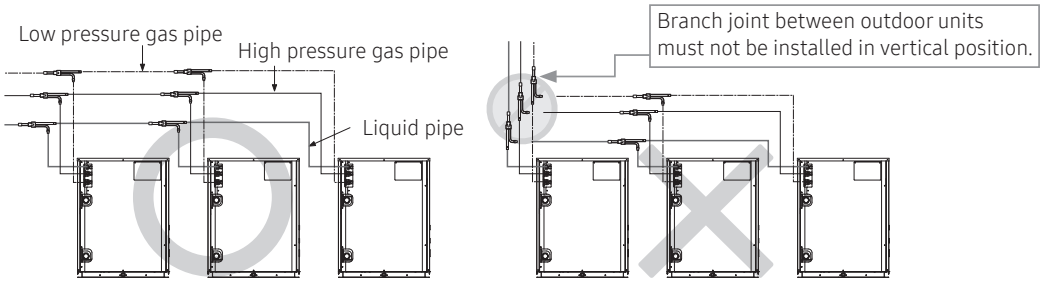
Classification	Condition	Example
First branch joint ~ Farthest Indoor unit	45 m ≤ b+c+d+e+f+g+p ≤ 90 m: Size of the branch pipe (b, c, d, e, f, g) must be increased by one grade	
Total length of extended pipe	If the size of the main pipe (pipe that connects between the outdoor unit ~ first branch joint) was not increased by one grade: a+(b+c+d+e+f+g)×2 +h+i+j+k+l+m+n+p ≤ 500 m	
	If the size of the main pipe (pipe that connects between the outdoor unit ~ first branch joint) was increased by one grade: (a+b+c+d+e+f+g)×2 +h+i+j+k+l+m+n+p ≤ 500 m	
Each Y-joint ~ Each indoor unit	h, i, j, ... p ≤ 45 m	
Difference between the distance of the outdoor unit to the farthest indoor unit and nearest indoor unit ≤ 45 m (a+b+c+d+e+f+g+p)-(a+h) ≤ 45 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 50 m.

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

Installing the branch joint between outdoor units

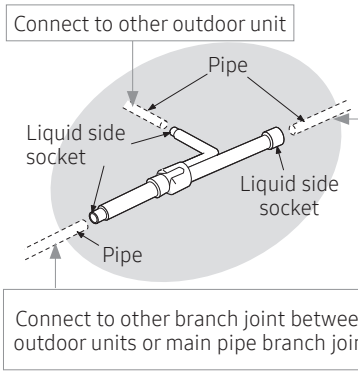
Installation of outdoor joints



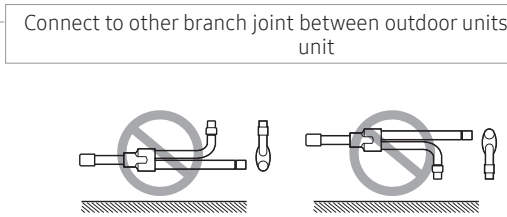
※ For HR System, connect liquid pipe, high pressure gas pipe and low pressure gas pipe.

※ For H/P System, connect liquid pipe and high pressure gas pipe.

10. Installation



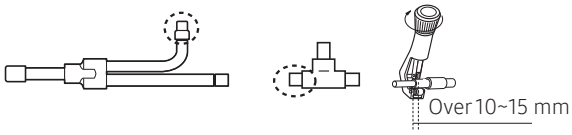
※ Use a provided liquid side socket according to the size of the selected pipe.



<Liquid pipe, High pressure gas pipe, Low pressure gas pipe>

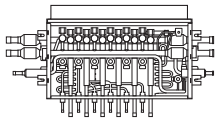
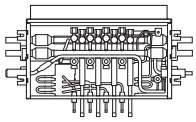
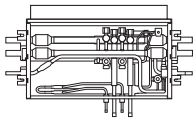
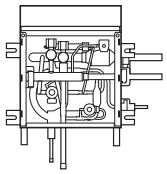
NOTE

- Cut the connection part of the outdoor unit connection pipe or the provided socket, according to the diameter of the connection pipe, before connecting them.



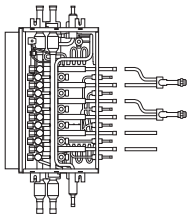
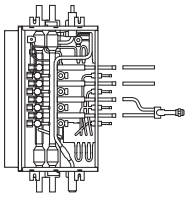
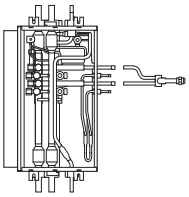
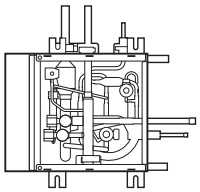
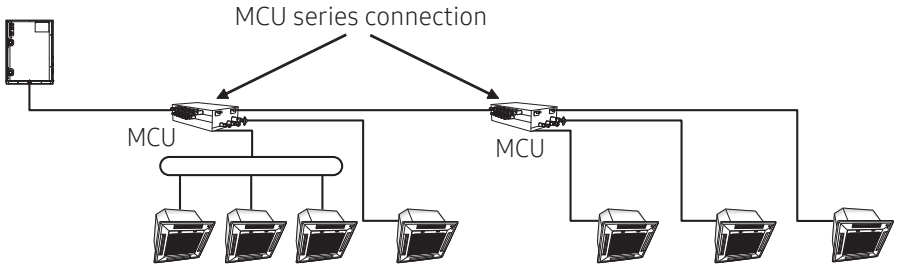
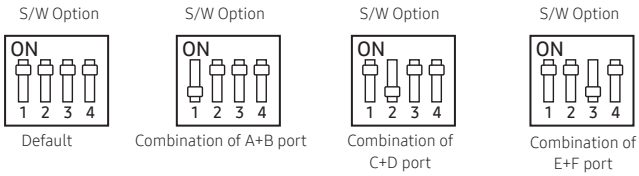
Installing the MCU

MCU specification

Model	MCU-S6NEK2N	MCU-S4NEK3N	MCU-S2NEK2N	MCU-S1NEK1N
Exterior of MCU				
Number of connectable indoor units at one port	Up to 8 units	Up to 8 units	Up to 8 units	Up to 8 units
The maximum capacity of the connectable indoor units at one port	16 kW	16 kW	16 kW	16 kW
The maximum capacity of the connectable indoor units	61.6 kW	61.6 kW	32.0 kW	16 kW
Internal EEV	Not included			

10. Installation

Installing the indoor units

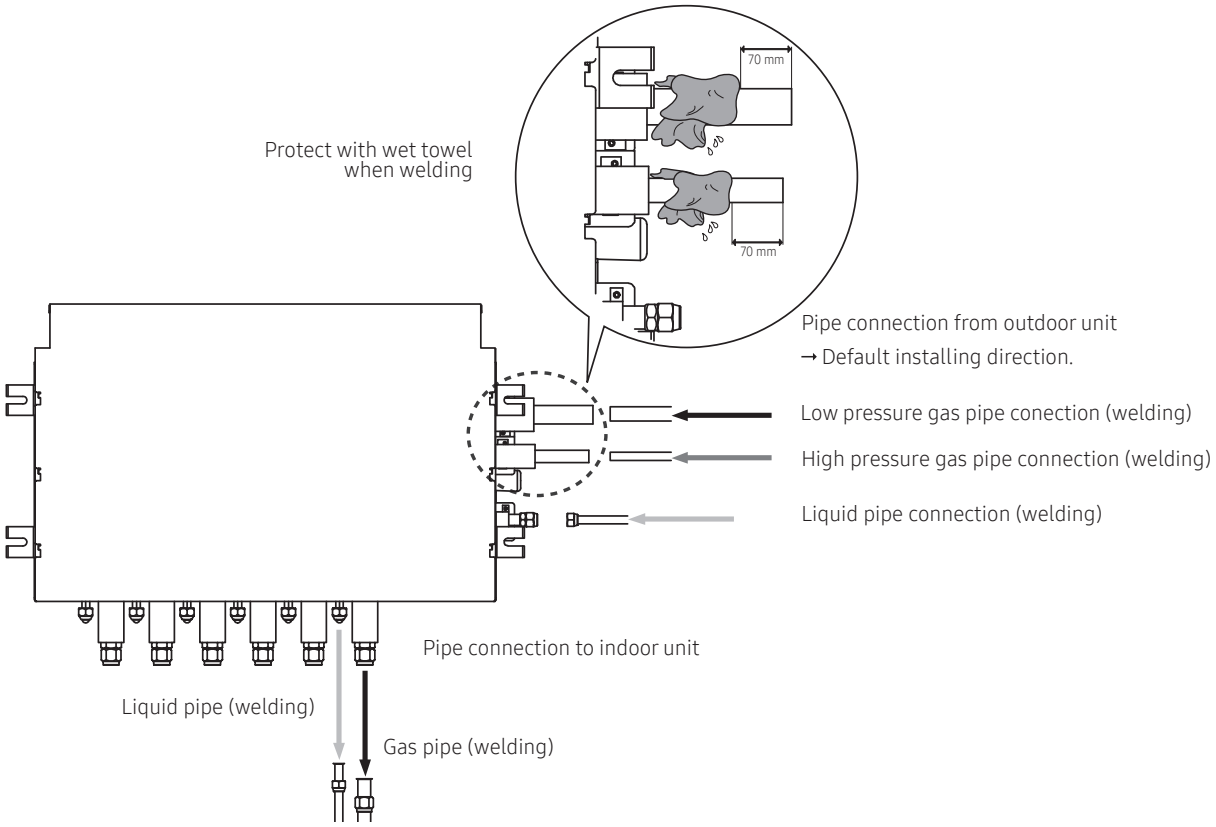
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<tr><td>Example installing (Each port connection)</td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Example installing (MCU series connection)</td><td colspan="4"> 
</td></tr>
<tr><td>Installing indoor units</td><td colspan="3">Under 16.0 kW indoor unit : Don’t use Y-connector
16.0 kW ~ 28.0 kW indoor unit : Use Y-connector at the Gas & Liquid line
In case of using Y-connector, it is only connectable for port combination at below
Connectable port combination for Y-connector : A + B port, C + D port, E + F port
Non-connectable port combination for Y-connector : B + C port, D + E port, non-continuous port
Set Dip Switch option for using Y-connector
 

In case of MCU connection in series, the maximum capacity of indoor units in MCU series connection is 61.6 kW</td><td>This unit is only connectable for one port under 16 Kw

This unit is impossible to connect MCU to MCU in series.</td></tr>
</table>

10. Installation

How to connect the pipes



※ When installing MCU, use the pattern sheet for installation that is provided with the product.

※ When welding the gas pipes, protect the product with the flame-proof sheet.

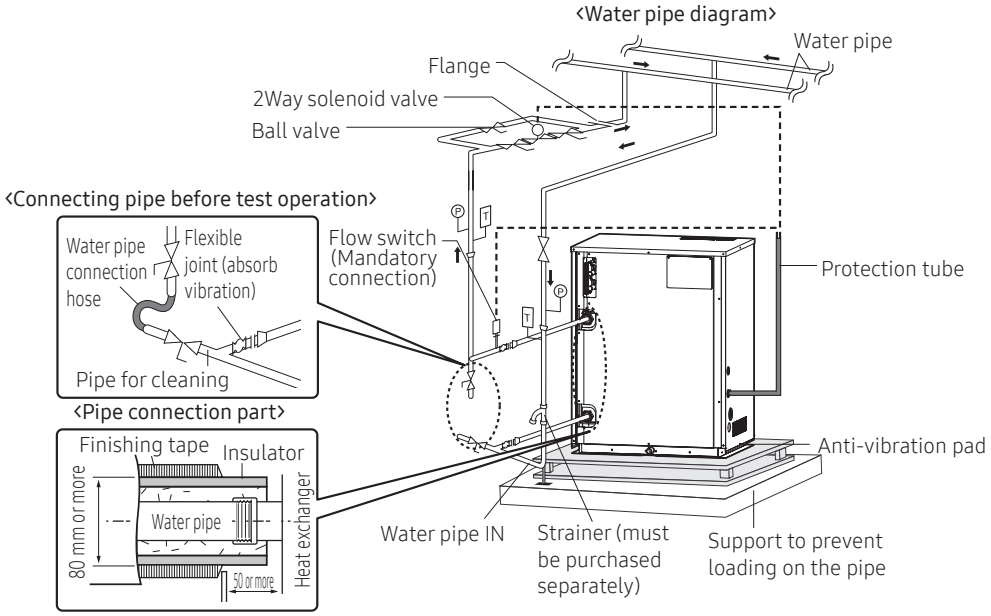
※ When connecting the MCU with outdoor units, default direction is set in the MCU.
If installing opposite direction, weld the enclosed copper cap in each high pressure, low pressure and liquid pipes.

10. Installation

Water pipe installation

It is recommended to use closed circuit cooling tower. If open cooling tower is applied, use intermediate heat exchanger and make sure that supplied heat source water system is closed circuit.

Water pipe installation



※ From above illustration, flow switch (mandatory) and 2way solenoid valve (optional) must be at least equivalent to the specification recommended by our company and they should be installed horizontally.

CAUTION

When water pipe circuit freezes, it will cause damage to the plate type heat exchanger and therefore preventive measure must be taken according to the situation.

- Drain remaining water in the water pipe when it will not be used for long period of time
- Constantly operate the water pump to circulate the water within the water pipe
- Install self-regulating heat cable on the water pipes

※ Design condition

Type	Circulating water	Operation	Inlet water temperature		Remarks
			Main usage range	Usage range limit Note 3)	
Heat source water	Water loop	Cooling	20 ~ 35 °C	10 ~ 45 °C	Refer to 'Cooling water management' on page 96
		Heating			
Ground heat source Note1)	Ground loop	Cooling	15 ~ 35 °C	10 ~ 45 °C	
		Heating	5 ~ 25 °C	-5 ~ 45 °C (-10 ~ 45 °C) Note 2)	

Note 1): Anti-freeze must be used when temperature of water inlet for heating is below 10°C or ground heat source is used. Maintain appropriate concentration level of anti-freeze according to temperature of water inlet.

Note 2): Strict management of anti-freeze concentration level is required. Consult Samsung before application.

Note 3): When inlet water temperature is outside of limit, consult Samsung before application.

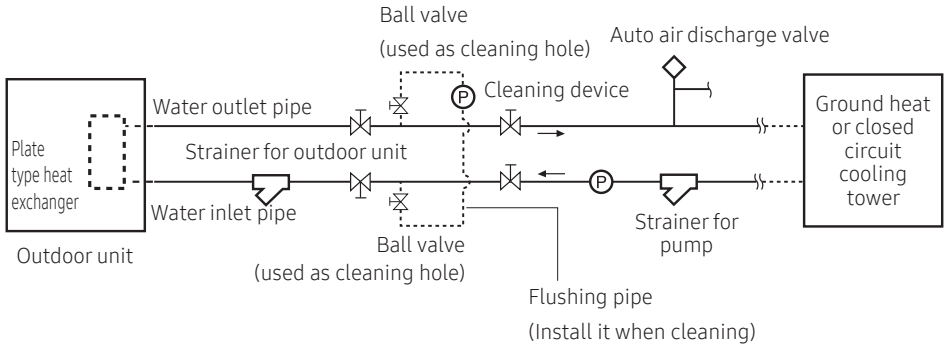
10. Installation

1. Diameter of the outdoor unit connection part where water pipe will be connected is 32A. If you install outdoor units with different capacities, install a flow control valve to secure rated flow for each outdoor unit. Socket must be connected within below tightening torque. If the tightening torque exceeds below value, it may cause product breakage.

Outer diameter of water pipe (mm)	Tightening torque (N·m)
10 ~ 20	25
21 ~ 30	50
31 ~ 50	100
51 ~ 80	220
81 ~ 115	600

2. Use certified parts for water pipe system and the water pressure of the water pipe system connected to outdoor unit must remain under 1.96 MPa.
3. Outdoor unit water pipes must be equipped with valves and other instrumentations as shown in the figure on the previous page. Strainer and flow switch must be installed within 1~2 m from the entrance pipe of the outdoor unit. (Strainer must be installed on entrance side)
   - When strainer is not installed, sand, dust or rust debris may cause product breakage.
   - Make sure to install a flow switch that works at minimum discharge. When optimal discharge level is not reached, heat exchanger within the outdoor unit may break.
4. Water inlet pipe is located at the bottom part of the heat exchanger and the water outlet pipe is at the top part of the heat exchanger.
5. Outdoor unit must be installed indoor at room temperature and the water inlet and outlet of the outdoor unit must be insulated with the heat exchanger as shown in the illustration.
6. Damp-proof, cold reserving and insulation work must be done thoroughly to prevent condensation from forming on the surface of the product and drain pipes of indoor/outdoor units. When the necessary work is not done thoroughly, you will waste energy caused by thermal loss and may get property damage during cold seasons when water pipe freezes and bursts.
7. If you stop the product for long time or in night time, water pipe circuit may freeze naturally when the temperature around the outdoor unit is under 0°C. When water pipe circuit freezes, it will cause damage to the plate type heat exchanger and therefore preventive measure must be taken according to the situation.
   - Drain remaining water in the water pipe
   - Operate continuous water circulation pump during outdoor unit operation, 1~5 minutes before the operation and 1~5 minutes after operation stops
   - Install self-regulating heat cable on the water pipes
8. When inlet water temperature is lower than 10°C, appropriate anti-freeze must be used according to the temperature. (Set the outdoor unit option switches K21 and K22 according to the usage temperature.)
   - When lowest inlet water temperature is -5°C, freezing point of anti-freeze must be lower than -8°C
   - When lowest inlet water temperature is -10°C, freezing point of anti-freeze must be lower than -15°C
9. Install number of auto air vent valve at a point where air may remain within the pipe (such as vertical water pipe). If the air within the pipe is not vented, it may cause performance decrease or corrosion on the product or pipes.
10. Keep the inlet water temperature within 'Main usage range'. If not, product may not work continuously.
11. Water scale may occur on the plate type heat exchanger depending on the water quality and the type of plate heat exchanger so regular chemical cleaning is necessary. When installing water pipes, install a heat source water shut-off valve and also install the flushing pipe with a ball valves (for chemical cleaning) on the pipe installed between the shut-off valve and the outdoor unit.

10. Installation



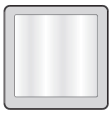
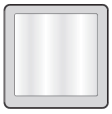
12. Before trial operation, connect the cleaning pipes installed on inlet and outlet as shown in above illustration. Then, take appropriate measures (such as blind flange etc) to stop the circulation water from entering the outdoor unit plate type heat exchanger, and use circulating pump to remove foreign substance within the water pipes and clean the strainer. When foreign substances accumulates on outdoor unit plate type heat exchanger, it may break the heat exchanger or cause problem to it.
13. For legal facilities, install digital sensor and flow meter on the water pipe for monitoring.

CAUTION

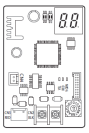
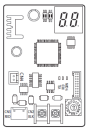
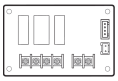
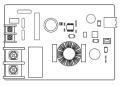
- Open the valve of the water pipe connected to the outdoor unit after flushing (cleaning foreign substances in water pipe) is completed.
- Check that air is vented from the water pipe and circulation amount is secured before opening the service valve on the refrigerant side of the outdoor unit.
- When circulating water stops during outdoor nit operation, it may cause breakage on plate type heat exchanger. Check the flow of circulation with flow switch or other devices.

11. Accessory

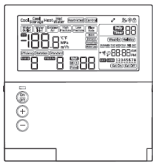
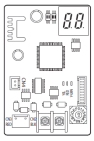
Controller

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 Olny	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

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

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

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

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

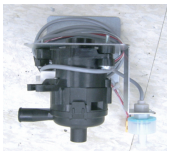
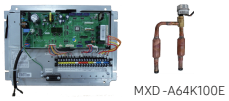
NOTE

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

11. Accessory

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

Product	Image	Model	Remark
ERV CO2 Sensor		MOS-C1	ERV, ERV PLUS
External room sensor		MRW-TA	Casssette, 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
Transformer kit		MVR-TK024	Transformer for variable flow control Valve Input/Output : AC 220V/AC 24V, 10VA

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

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	FloorStanding	ERV Plus	AHU
			JSF-0	JSF-1	JSF-2						MSP-S	MSP-0	MSP-1	MSP-2				5HP	8,10HP								
Panel	PC4NUDMAN	Ceiling						O																			
	PC4NBDMAN	Ceiling (Black)						O																			
	PC4NUNMAN	Open						O																			
	PC4NBNMAN	Open (Black)						O																			
	PC4NUSKAN	Waffle					O																				
	PC4NBSKAN	Waffle (Black)					O																				
	PC4NUSKEN	Classic					O																				
	PC4SUSMAN	Waffle							O																		
	PC4SUSMEN	Classic							O																		
	PC1NUSMAN	Stripe		O																							
	PC1NUPMAN	Z-Slide		O																							
	PC1MWSKAN	Fluid	O																								
	PC1NWSMAN			O																							
	PC1BWSMAN				O																						
	PC2NUSMEN	Stripe				O																					
DRAIN PUMP	MDP-N047SNC0D	-																O									
	MDP-N047SNC1D	-															O		O								
	MDP-M075SGU1D	-										O	O														
	MDP-M075SGU2D	-												O													
	MDP-M075SGU3D	-									O																
	MDP-E075SEE3D	-								O																	
	MDP-G075SP	External, All Capacities													O	O											
	MDP-G075SQ	Internal													O	O											
S-Plasma Ion KIT	MSD-CAN1	-					O		O																		
	MSD-EAN1	-																								O	
Motion detect Sensor	MCR-SMA	-							O																		
ERV CO2 Sensor	MOS-C1	-																								O	
EEV KITS	MEV-E**SA	1 Indoor																		O							
	MXD-E**K***A	2,3 Indoor																		O							
MCU-KIT	MCU-S6NEK2N	6 ports, max 61.6kW	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O			O	O	O	O	O	O	O	
	MCU-S4NEK3N	4 ports, max 61.6kW	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O			O	O	O	O	O	O	O	
	MCU-S2NEK2N	2 ports, max 32.0kW	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O			O	O	O	O	O	O	O	
	MCU-S1NEK1N	1 port, max 16.0kW	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O			O	O	O	O	O	O	O	
AHU-KIT	MXD-K025AN	only for 2.5Hp's AHU																									O
	MXD-K050AN	only for 5Hp's AHU																									O
	MXD-K075AN	only for 7.5Hp's AHU																									O
	MXD-K100AN	only for 10Hp's AHU																									O
	MCM-D201N	only for 10~40Hp's AHU																									O

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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