SAMSUNG AIR CONDITIONING

VRF SPECIFIERS' DESIGN GUIDE | 4th EDITION

SAMSUNG

Samsung is moving with, and ahead of, our customers

"Put simply, our differentiation is centered on producing innovative technology that brings genuine change to people's lives. We do this by bringing a relentless focus on consumer experience and product innovation to everything we do." Sue Shim CMO (Chief Marketing Officer), Samsung

Why Samsung?

As one of the world's largest technology companies, Samsung are delivering a complete and connected set of products and solutions for commercial properties and enterprises. Samsung will work with you to provide your customers with leading edge 'total building' propositions utilising the latest innovative technologies.

- Hotel TV solutions
- Professional displays
- Smart signage
- Security systems
- Mobile devices and apps
- Printing solutions
- Telephone systems
- Wireless networks
- Air conditioning

Introduction

Samsung have been manufacturing air conditioning systems for over 40 years, utilising the latest technology and striving to produce the most innovative, efficient and reliable systems on the market today.

The 5th generation Samsung VRF systems deliver leading efficiencies, long pipe runs and smart controls to provide air conditioning solutions for a variety of commercial applications.

Continuous Samsung innovation has created the largest single VRF outdoor, a compact modular chiller and the worlds first circular cassette.

This guide has been produced to assist in the selection of the most suitable equipment for today's commercial projects, from Samsung's comprehensive portfolio of 2 and 3-pipe air and water cooled systems, extensive range of indoor unit designs and variety of control options.

Samsung air conditioning has already been specified and installed in a wide range of UK properties and applications in conjunction with other products from the Samsung Electronics product portfolio, including hotel TVs, display screens, CCTV, security systems, wireless networks, mobile devices and Smart Home (internet of things).

Nomenclature

Outdoor units

1	Classification	AM	DVM
2	Capacity	x 1/10 HP (3 digits)	
3	Version	F	2013
		H/J	2015
		K	2016
4	Product Type	X	Outdoor Unit
5	Product Notation	V	DVM S
		W	DVM S Water
		M	DVM S Eco
6	Product Type	A	Stsndard
		H	High Efficiency
7	Rating Voltage	E	1Ø, 220~240V, 50Hz
		G/N	3Ø, 380~415V, 50Hz
8	Mode	H	Heat Pump
		R	Heat Recovery

Indoor units

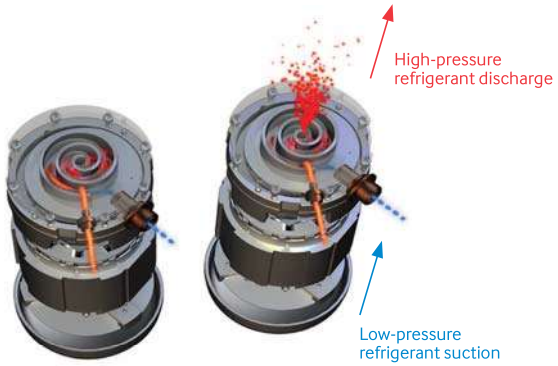
1	Classification	AM	DVM
2	Capacity	x 1/10 HP (3 digits)	
3	Version	F	2013
		G/H	2014
		J	2015
		K	2016
4	Product Type	N	Indoor Unit
5	Product Notation	"1"	1 way cassette
		"2"	2 way cassette
		4	360 & 4 way cassette
		N	Mini 4 way cassette
		L	LSP Duct (Slim Duct)
		M	MSP Duct
		H	HSP Duct
		C	Ceiling
		J	Console
		F	Floor Standing
		Q	Neo Forte (EEV)
		V	Wall A3050 (EEV)
		B	Hydro Unit
		K	ERV
6	Rating Voltage	E/K	1Ø, 220~240V, 50Hz

Contents

Why Samsung is leading the way

Class Leading Efficiencies (ESEER 8.00)

The 3rd generation VRF system adopts a dual inverter compressor that upgrades refrigerant flow and the motor's operating performance. The new flash injection technology provides high heating performance at low temperatures achieving weather dependent efficiencies of up to 4.88 (EER) and 5.49 (COP).



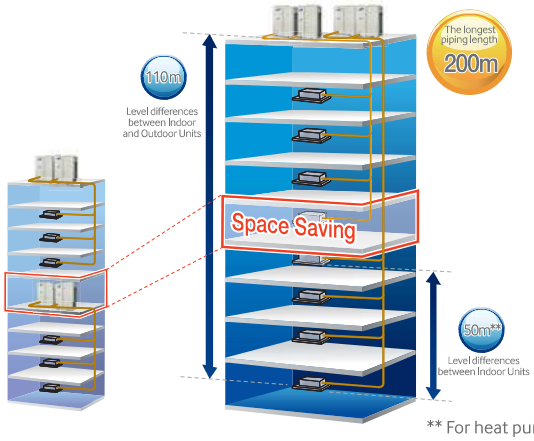
Flash Injection Technology

30HP Single Outdoor Unit

Available as Heat Pump 2pipe, the single outdoor unit provides 84kW cooling from a footprint of just 0.99m^2. A 22HP Heat Recovery unit is also available providing 61.6kW cooling.

Piping Separation 200m

The 200m piping separation between outdoor and indoor units, the height difference of 110m, and first branch to furthest indoor unit distance of up to 90m all lead the industry. (Please refer to the piping diagrams on page 78).



** For heat pump system

Indoor Discharge Temperature Control

Without changing the outdoor unit's setting, each ducted indoor unit or AHU kit has a discharge air temperature control function, offering greater comfort in cooling or heating mode.

This is set by each MWR-WE10N remote control in a detailed setting mode and is only applicable to ALL ducted/AHU connected systems.

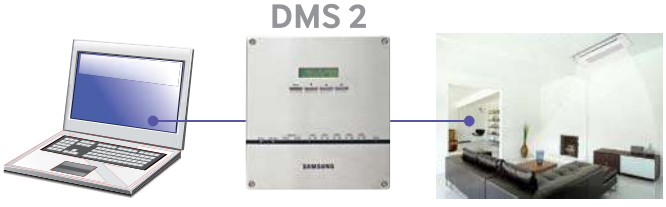
Target Temperature

Cooling: 11~18 degrees

Heating: 30~43 degrees

Programmable Mini BMS

The DMS 2 web server incorporates programmable logic and ability to connect and control third-party equipment via 8 inputs and 6 outputs – providing a mini-BMS capability, plus Power Monitoring function, via associated interface.



The World's First Circular Cassette

Available for both VRF & Split systems, the stylish circular 360 cassette harmoniously blends into any type of interior design. The 360 degree rotational air flow delivers draught free even cooling throughout the space and the innovative bladeless air flow control adjusts the vertical direction of the air.

40kW Mini VRF

The 14HP DVM S Eco has been innovatively packaged to provide 40kW cooling from a chassis 56% smaller than a conventional VRF and weighs just 162kg. Despite its size, efficiencies of 3.78 (EER) and 4.55 (COP) have been achieved.

Smart Management

Samsung provides an easy to use, smart management system that makes life simpler. With this web-based system, you can immediately access data and easily manage it for unsurpassed convenience.

Auto Commissioning and Management (ACM)

DVM S has a smart management system that facilitates self-diagnosis, auto commissioning, auto management, and mobile data transmission. Since you can control the system with smart phone or tablet PC, it provides easy and convenient management.

Wi-Fi Monitoring System

With S-Checker, DVM S can be monitored by smart devices such as smart phone or tablet PC.

Outdoor Units Line-up

Outdoor Units	DVM S 60. Heat Recovery 66. Heat Pump 64. Heat Pump Std 2-pipe Heat Pump (HP) or 3-pipe Heat Recovery (HR)	Model	Capacity		Single								Module					
				HP	8	10	12	14	16	18	20	22	24	26	28	30	32	
				Cooling	22.4kW	28.0kW	33.6kW	40.0kW	45.0kW	50.4kW	56.0kW	61.6kW	67.2kW	73.6kW	78.6kW	84.0kW	89.6kW	
				Max. kW Capacity	29.12	36.4	43.7	52.0	58.5	65.52	72.8	80.08	87.4	95.7	102.2	109.2	116.5	
				Max. no. Indoors	14	18	21	26	29	32	36	40	43	47	51	54	58	
		AM080JXVHGH/GR	8 HP		1													
		AM100JXVHGH/GR	10 HP			1												
		AM120JXVHGH/GR	12 HP				1						2	1	1	1	1	
		AM140KXVGGH/ AM140JXVHGR	14 HP					1						1				
		AM160KXVGGH/ AM160JXVHGR	16 HP						1						1			
		AM180KXVGGH/ AM180JXVHGR	18 HP							1						1		
		AM200KXVGGH/ AM200JXVHGR	20 HP								1						1	
		AM220KXVGGH/ AM220JXVHGR	22 HP									1						
		AM240KXVGGH	24 HP										1					
		AM260KXVGGH	26 HP											1				
		AM280KXVGGH	28HP												1			
		AM300KXVAGH	30HP													1		

Outdoor Units	71. DVM S Water	Phase		Capacity			
			HP	8	10	12	20
			Cooling	22.4kW	22.0kW	33.6kW	56.0kW
			Max. kW Capacity	29.12	36.4	43.7	72.8
			Max. no. Indoors	14	18	21	36
		3 Phase		AM080FXWANR	AM100FXWANR	AM120FXWANR	
		3 Phase					AM200FXWANR

Outdoor Units	74. DVM S Eco	Phase		Capacity						
			HP	4	5	6	8	10	12	14
			Cooling	11.2kW	14.0kW	15.5kW	22.4kW	28kW	33.5kW	40kW
			Max. kW Capacity	14.5	18.2	20.2	29.12	36.4kW	43.6kW	52kW
			Max. no. Indoors	6	8	9	17	18	21	26
		1 Phase		AM040FMXDEH	AM050FMXDEH	AM060FMXDEH				
		3 Phase		AM040FMXDGH	AM050FMXDGH	AM060FMXDGH	AM080FMXDGH	AM100KXMDGH	AM120KXMDGH	AM140KXMDGH

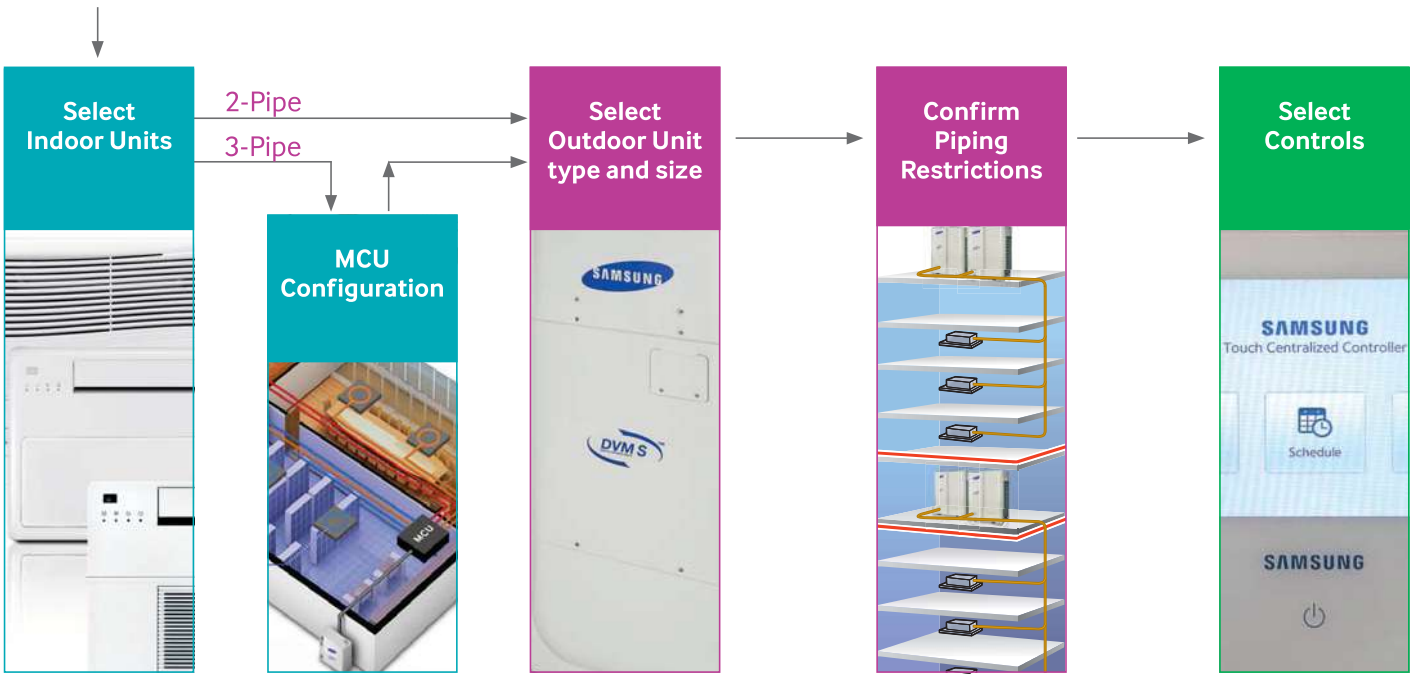
These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Module													Single								Module			
34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
95.2kW	101.6kW	106.6kW	112.0kW	117.6kW	123.2kW	128.8kW	135.2kW	140.2kW	145.6kW	151.2kW	156.8kW	163.2kW	168.2kW	173.6kW	179.2kW	184.8kW	190.4kW	196.8kW	201.8kW	207.2kW	212.8kW	218.4kW	224.8kW
123.8	132.1	138.6	145.6	152.9	160.2	167.4	175.8	182.3	189.3	196.6	203.8	212.3	218.7	225.7	233	240.2	247.5	255.8	262.3	269.4	276.6	283.9	292.2
61	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
1						2	1	1	1	1	1						2	1	1	1	1	1	
	1						1					1						1					1
		1						1					1						1				
									1											1			
			2	1						1				2	1						1		
1	1	1		1	2	1	1	1	1	1	2	2	2	1	2	3	2	2	2	2	2	3	3

Please check manual for full list of outdoor combinations, including those using 24HP+

*Please check Eurovent website to confirm exact model certification.

Selection steps



Indoor Units and Controls Line-up

Indoor Units

Type	Capacity							
	1.5/1.7kW	2.2kW	2.8kW	3.6kW	4.5kW	5.6kW	6.0kW	7.1kW
12. 1Way Cassette	•	•	•	•		•		•
14. 2Way Cassette						•		•
16. 360 Cassette					•	•		•
20. 4Way Cassette					•	•		•
24. Mini 4Way Cassette	•	•	•	•	•	•	•	
26. Slim Duct	•	•	•	•	•	•		•
30. MSP Duct		•	•	•	•	•		•
34. MSP Duct S				•	•	•		•
40. HSP Duct								
42. Console		•	•	•	•	•		
44. Ceiling						•		•
46. Wall (Neo Forte-E)	•	•	•	•	•	•		•
48. Wall (A3050-E)	•	•	•	•	•	•		•
50. Floor Uncased				•		•		•
54. Hydro Unit HE 1 Phase (Heating)								
54. Hydro Unit HT 1 Phase + 3 Phase (Heating)								

Type	Details			
	Model			Model
52. ERV Plus	500	OAP (Outdoor Air Processer)		AM140JNEPEH
				AM220JNEPEH
	1000			AM280JNEPEH

These products contain fluorinated greenhouse gas (R410A) – HT Hydro Unit (R134a).

Controls

Individual Control							Centralised Control
Wireless Remote Controller	Wired Controller	Simplified Remote Controller		Wireless Signal Receiver	External Remote Temp. Sensor	Wi-Fi Controller	Centralised Controller
MR-EH00	MWR-WE10N	MWR-SH00N	MWR-SH10N	MRK-A10N	MRW-TA	MIM-H03N	MCM-A300N

Capacity												
	8.2kW	9.0kW	11.2kW	12.8kW	14.0kW	16.0kW	18.0kW	22.0kW	25.0kW	28.0kW	31.5kW	50.4kW
		•	•	•	•							
		•	•	•	•							
		•	•	•	•							
		•	•									
		•	•	•	•							
			•	•	•		•	•		•		
			•		•							
	•											
						•					•	•
						•			•			

Details				
		Model	Description	Relevant Unit
	 	MXD-K025AN	7.0kW~8.75kW	2.5HP to 40HP with Discharge Air Temperature Control
		MXD-K050AN	14.0kW~17.5kW	

	Building Management System				Power Monitoring		Interface Module	Converter	
									
	DMS 2.5	S-NET 3	Lonworks G/W	BACnet G/W	Electricity Meter	Power Monitoring	External Contact Module	NASA Converter	S-Net Converter
	MIM-D01AN	MST-P3P	MIM-B18BN	MIM-B17BN	MIM-B16N	MCM-C210N	MIM-B14	MIM-N01	MIM-C02N

1Way Cassette Specifications

Wide Blade


NO! Dust

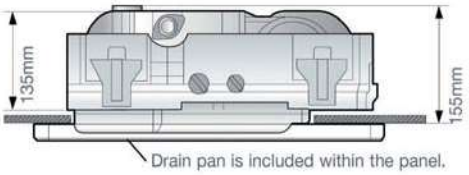
High Lift-UP

Model Name				AM017HN1DEH	AM022HN1DEH	AM022FN1DEH	AM028FN1DEH	AM036FN1DEH	AM056JN1DEH	AM071JN1DEH
Perfomance	Capacity (Nominal)	Cooling	kW	1.70	2.20		2.80	3.60	5.6	7.1
		Heating		1.90	2.50		3.20	4.00	6.3	8.0
	Capacity (UK Conditions)	Cooling (Total)*5)		1.4	1.8		2.3	2.9	4.6	5.8
		Cooling (Sensible)*5)		1.1	1.4		1.8	2.4	3.8	4.5
		Heating*6)		1.8	2.4		2.7	3.3	5.3	6.7
Fan	Air Flow Rate	H/M/L (UL)	CMM	4.80 / 4.30 / 4.10	5.10 / 4.60 / 4.30	6.00 / 5.00 / 4.00	7.00 / 6.00 / 5.00	8.00 / 7.00 / 6.00	16 /14 /12.5	17/15.5/14
			l/s	80 / 71 / 68	85 / 76 / 71	100 / 83 / 66	116 / 100 / 83	133 / 116 / 100	267/233/208	283/258/233
Piping Connections	Liquid Pipe		Ø, inch	1/4						
	Gas Pipe			1/2						
Fuse Rating				5A						
Sound	Pressure	High/Mid/Low	dB(A)	27.0 I 24.0 I 21.0	27.0 I 25.0 I 23.0		29.0 I 27.0 I 24.0	35.0 I 31.0 I 27.0	36/33/31	39/37/34
	Power	Cooling		46.0	48.0	51.0	53.0	58.0	58	60
Dimensions	Net Weight		kg	8.00		10.50	10.50		14.5	14.5
	Net Dimensions (WxHxD)		mm	740 x 135 x 360		970 x 135 x 410			1200 x 138 x 450	1200 x 138 x 450
Panel Size	Panel Model		-	PC1MWSKAN		PC1NUSMAN			PC1BWSMAN	PC1BWSMAN
	Panel Net Weight		kg	2.60		3.00			6.30	
	Net Dimensions (WxHxD)		mm	900 x 25 x 420		1,180 x 25 x 460			1410 x 23 x 500	
Additional Accessories	Drain Pump	Drain Pump	-/Model	Built-in						
		Max. Lifting Height / Displacement	mm/litre/h	750/24						
	Air Filter		-	Long life filter						
	Panel Option			-		PC1NUPMAN			-	

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Slim Design

Our slim 1Way Cassette indoor unit is only 135mm thick. It can easily be installed onto ceilings with a minimum amount of space.



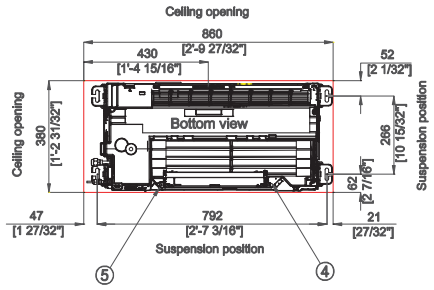
Stylish Panel Options

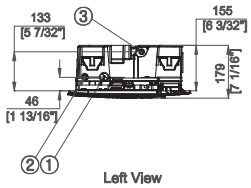
Three stylish panel options are available (depending upon model size) to match the installation environment. Wave panel for H1NDEH models.

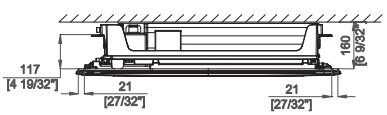
*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

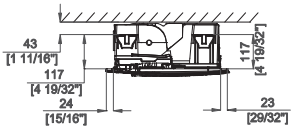
Units: mm

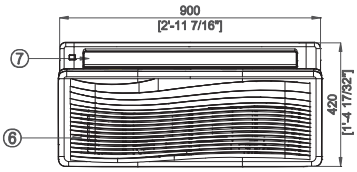
Models	AM017/022HN1DEH
No.	Name
1	Refrigerant gas pipe
2	Refrigerant liquid pipe
3	Drain pipe
4	Power supply wiring conduit
5	Communication wiring conduit
6	Air inlet grille
7	Air outlet louver

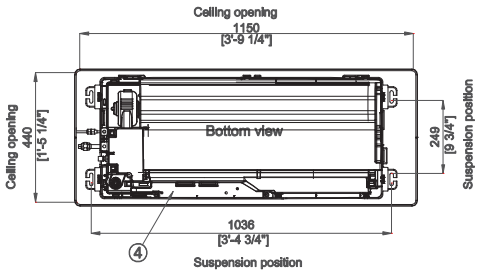




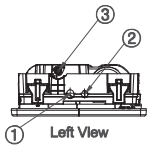


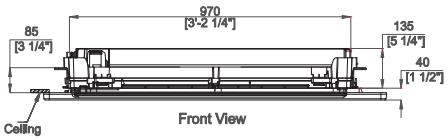


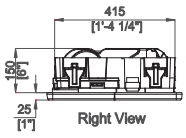


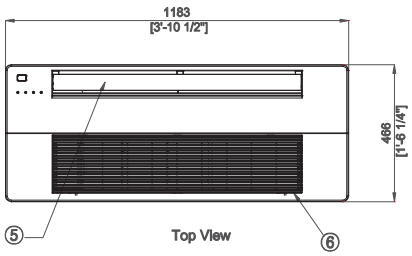


Models	AM022/028/036FN1DEH
No.	Name
1	Refrigerant gas pipe
2	Refrigerant liquid pipe
3	Condensate drain
4	Power and communication wiring conduits
5	Air discharge louver
6	Air suction grille









2Way Cassette Specifications

High Lift-UP

Model Name				AM056FN2DEH	AM071FN2DEH
Perfomance	Capacity (Nominal)	Cooling *2)	kW	5.6	7.1
		Heating *3)		6.3	8.0
	Capacity (UK Conditions)	Cooling (Total) *5)		4.6	5.8
		Cooling (Sensible) *5)		3.4	4.4
		Heating *6)		5.3	6.7
Fan	Air Flow Rate	H/M/L (UL)	CMM	14 / 13 / 12	15 / 14 / 13
			l/s	233 / 216 / 200.	250 / 233 / 216
Piping Connections	Liquid Pipe		Ø, inch	1/4	3/8
	Gas Pipe			1/2	5/8
Fuse Rating				5A	
Sound	Sound Pressure	High/Mid/Low *4)	dBA	38 / 37 / 35	41 / 39 / 37
Dimensions	Net Weight		kg	21.00	22.00
	Net Dimensions (WxHxD)		mm	890 x 230 x 575	
Panel Size	Panel Model		-	PC2NUSMEN	
	Panel Net Weight		kg	4.00	
	Net Dimensions (WxHxD)		mm	1030 x 25 x 650	
Additional Accessories	Drain Pump	Drain Pump	-/Model	Built-in	
		Max. Lifting Height / Displacement	mm/litre/h	750 / 24	
	Air Filter		-	Long life filter	

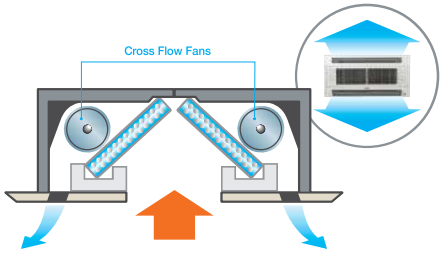
These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Standard formula for Easy Installation

The dimensions of 2Way Cassette air conditioner allow for easy installation into standard ceiling grids (600Wx600D) in such a way that everything just falls into place.

Twin Cross Flow Fan

2Way Cassette type unit is a perfect fit for long and narrow rectangular spaces. The Twin Cross Flow Fan inside 2Way Cassette will spread cool or warm air even further and wider with less noise.



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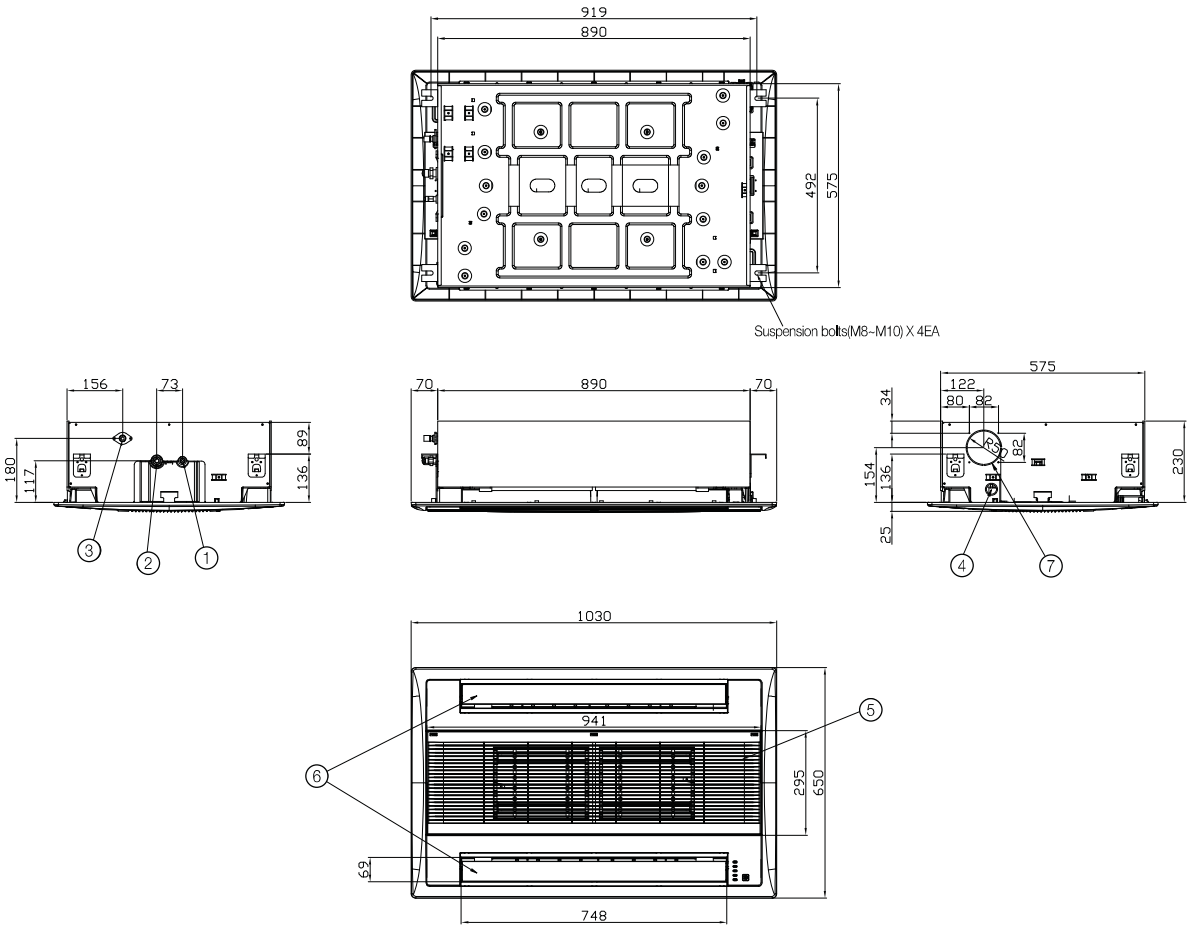
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

2Way Cassette

Dimensional Drawing

Units: mm



No.	Name	Description	
		5.6kW	7.1kW
1	Liquid pipe connection	Ø6.35 Flare	Ø9.52 Flare
2	Gas pipe connection	Ø12.70 Flare	Ø15.88 Flare
3	Drain pipe connection	VP25 (OD 32, ID 25)	
4	Conduit for power supply and communication wiring	-	
5	Air inlet grille	-	
6	Air outlet louver	-	
7	Fresh air intake	-	

360 Cassette Specifications


NO! Dust

High Lift-UP


Fresh Air

Model Name				AM045KN4DEH	AM056KN4DEH	AM071KN4DEH	
Perfomance	Capacity (Nominal)	Cooling*2)	kW	4.5kW	5.6kW	7.1kW	
		Heating*3)		5.0kW	6.3kW	8.0kW	
	Capacity (UK Conditions)	Cooling (Total)*5)		3.7kW	4.6kW	5.8kW	
		Cooling (Sensible)*5)		2.8kW	3.5kW	4.5kW	
		Heating*6)		4.2kW	5.8kW	6.7kW	
Fan	Air Flow Rate	H/M/L (UL)	CMM	14.5 / 13.5 / 12.5	16.0 / 14.5 / 13.5	18.0 / 16.0 / 14.0	
			l/s	242 / 225 / 208	267 / 242 / 225	300 / 267 / 233	
Piping Connections	Liquid Pipe		Ø, inch	1/4"	1/4"	3/8"	
	Gas Pipe		Ø, inch	1/2"	1/2"	5/8"	
Field Wiring	Power Source Wire	Below 20m/ over 20m	mm^2	1.5-2.5	1.5-2.5	1.5-2.5	
Fuse Rating				5A			
Sound	Sound Pressure	High/Mid/Low*4)	dBA	33 / 31 / 29	34 / 32 / 29	36 / 33 / 30	
Dimensions	Net Weight		kg	21.00			
	Net Dimensions (WxHxD)		mm	947 x 281 x 947			
	Min. ceiling void depth square/round panel		mm	233 / 205			
Panel Size	Panel Model		Square	PC4NUDMAN	PC4NUDMAN	PC4NUDMAN	
	Panel Net Weight		kg	3.6			
	Net Dimensions (WxHxD)		mm	1000 x 66 x 1000			
Additional Accessories	Drain Pump	Drain Pump	-/Model	Built-in			
		Max. Lifting Height / Displacement	mm/litre/h	750/24			
	Panel Options		Round	PC4NUNMAN	PC4NUNMAN	PC4NUNMAN	
			Square Black	PC4NBDMAN	PC4NBDMAN	PC4NBDMAN	
			Round Black	PC4NBNMAN	PC4NBNMAN	PC4NBNMAN	
	Virus Doctor			MSD-CAN1	MSD-CAN1	MSD-CAN1	

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

All round cooling and comfort

The Samsung 360 Cassette air conditioner offers a brand new way of staying comfortably cool in every corner of the room. Its innovative circular design not only means it perfectly fits in everywhere, adding a sophisticated look to many different sites, but it also blows cool air in all directions, so that the whole room is the same temperature*.

And its bladeless outlet ensures that cool air is gently dispersed, without creating a cold draft**, and doesn't block the air flow, even at low angles, so it expels 25% more air* and spreads it farther.

* Samsung testing compared to a general 4 way cassette type air conditioner.
** Within an 9.3m radius the temperature difference is less than 0.6°C.

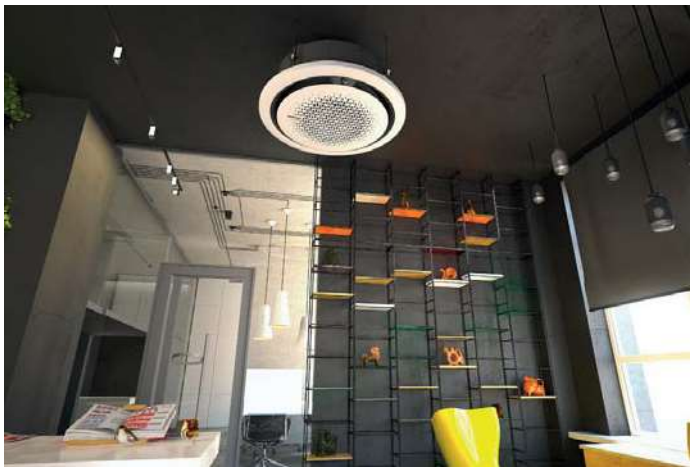
*Within an 9.3m radius the temperature difference is less than 0.6°C.

*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

	AM090KN4DEH	AM112KN4DEH	AM128KN4DEH	AM140KN4DEH
	9.0kW	11.2kW	12.8kW	14.0kW
	10.0kW	12.5kW	13.8kW	16.0kW
	7.3kW	9.1kW	10.4kW	11.4kW
	5.7kW	7.1kW	8.1kW	8.5kW
	8.4kW	10.5kW	11.5kW	13.4kW
	22.0 / 18.5 / 16.0	25.5 / 21.0 / 17.5	29.5 / 24.0 / 19.0	31.5 / 26.5 / 21.0
	367 / 308 / 267	425 / 350 / 292	492 / 400/ 317	525 / 442 / 350
	3/8"			
	5/8"			
	1.5-2.5			
	5A			
	40 / 36 / 32	40 / 36 / 32	42 / 38 / 33	44 / 40 / 35
	21.00	24.00		
	947 x 281 x 947	947 x 365 x 947	947 x 365 x 947	947 x 365 x 947
	233 / 205	317 / 289	317 / 289	317 / 289
	PC4NUDMAN			
	3.6			
	1000 x 66 x 1000			
	Built-in			
	750/24			
	PC4NUNMAN	PC4NUNMAN	PC4NUNMAN	PC4NUNMAN
	PC4NBDMAN	PC4NBDMAN	PC4NBDMAN	PC4NBDMAN
	PC4NBNMAN	PC4NBNMAN	PC4NBNMAN	PC4NBNMAN
	MSD-CAN1	MSD-CAN1	MSD-CAN1	MSD-CAN1

Circular to perfectly fit in everywhere

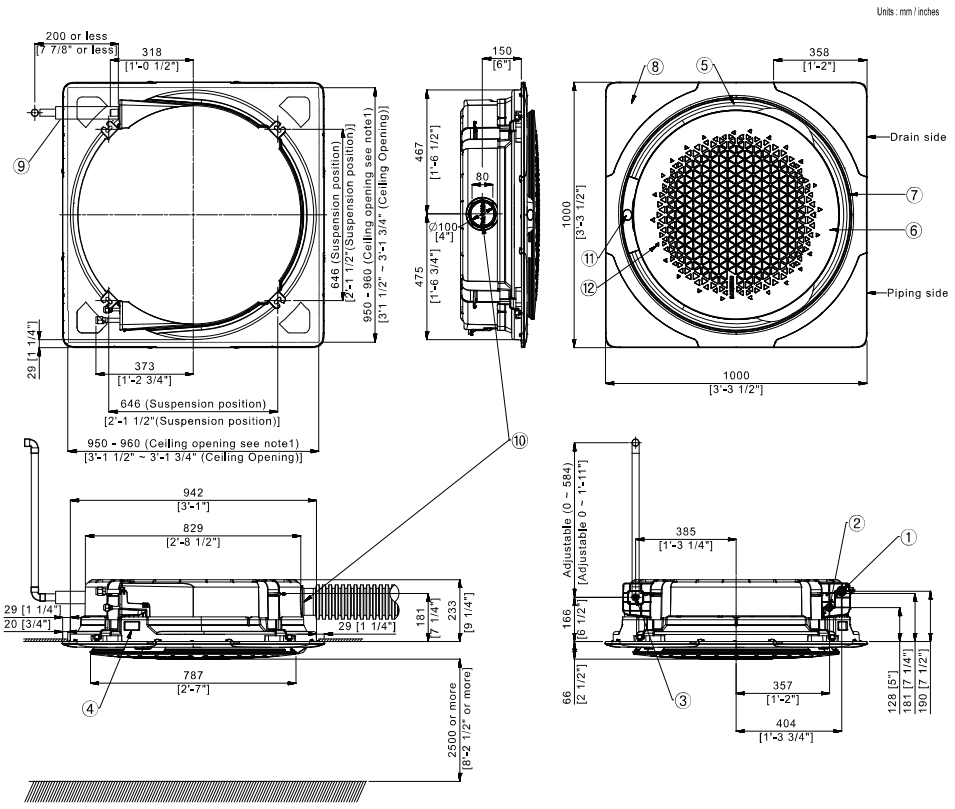
Its innovative circular design can match a multitude of interior designs, so it perfectly fits in everywhere. Its minimalist modern styling creates a sophisticated look and its circular shape stands out beautifully.

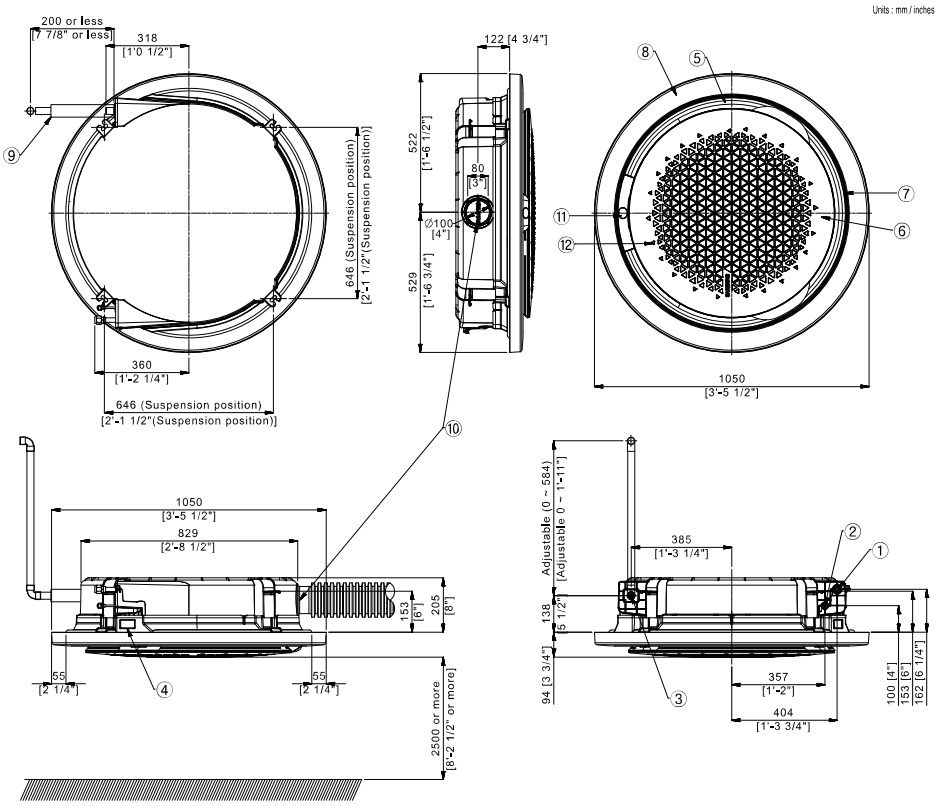


360 Cassette

Dimensional Drawings | AM045/056/071/090KN4DEH

Units: mm/inches

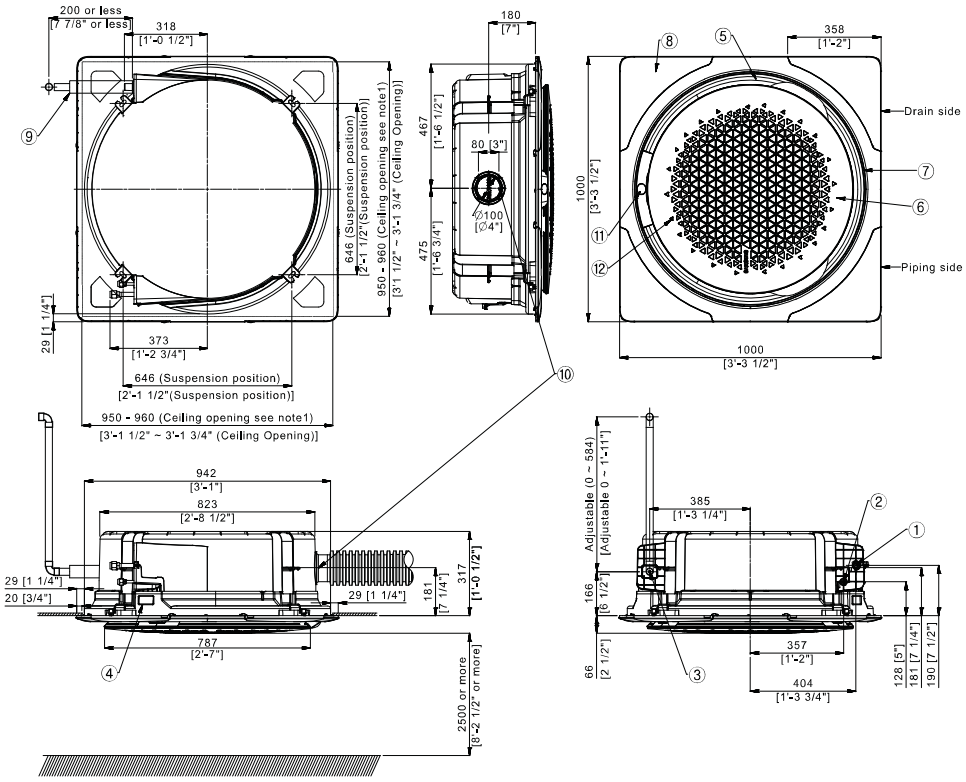


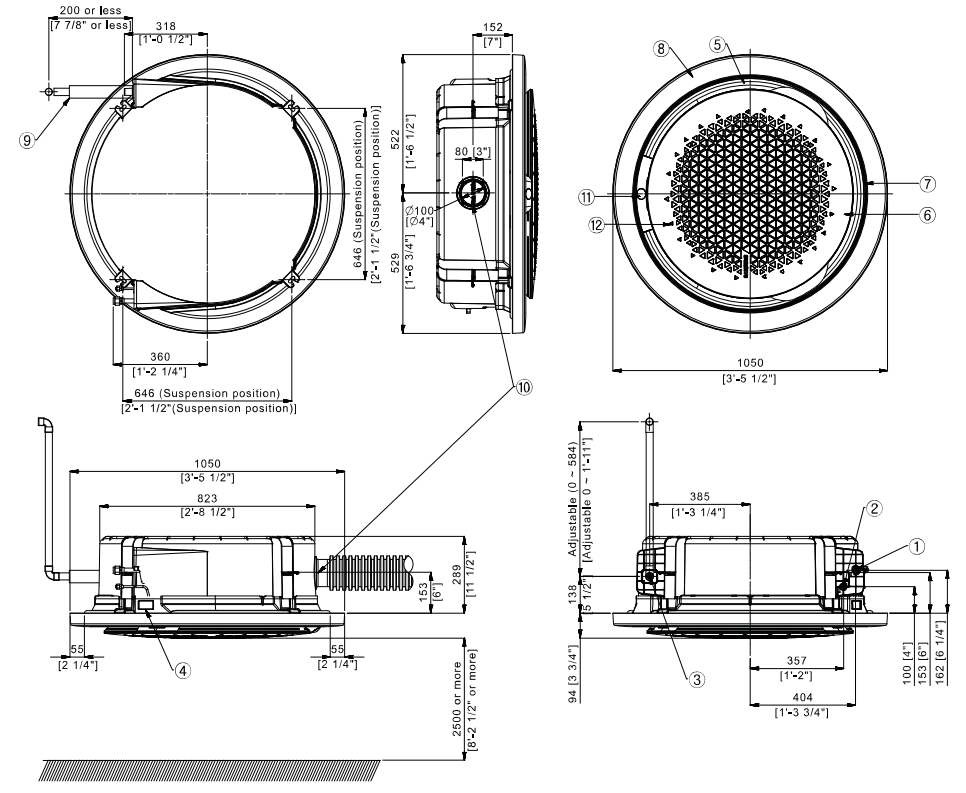


360 Cassette

Dimensional Drawings | AM112/128/140KN4DEH

Units: mm/inches





4Way Cassette Specifications

Model Name				AM045FN4DEH	AM056FN4DEH	AM071FN4DEH	
Perfomance	Capacity (Nominal)	Cooling*2)	kW	4.5	5.6	7.1	
		Heating*3)		5.0	6.3	8.0	
	Capacity (UK Conditions)	Cooling (Total)*5)		3.7	4.6	5.8	
		Cooling (Sensible)*5)		2.8	3.5	4.5	
		Heating*6)		4.2	5.3	6.7	
Fan	Air Flow Rate	H/M/L (UL)	CMM	14.50 / 13.50 / 12.50	15.00 / 14.00 / 13.00	17.00 / 15.50 / 14.50	
			l/s	241 / 225 / 208	250 / 233 / 216	283 / 258 / 241	
Piping Connections	Liquid Pipe		Ø, inch	1/4		3/8	
	Gas Pipe		Ø, inch	1/2		5/8	
Field Wiring	Power Source Wire	Below 20m/ over 20m	mm^2	1.5 / 2.5			
Fuse Rating				5A			
Sound	Sound Pressure	High/Mid/Low*4)	dBA	34 / 33 / 31		36 / 35 / 34	
Dimensions	Net Weight		kg	15.50			
	Net Dimensions (WxHxD)		mm	840 x 204 x 840			
Panel Size	Panel Model		-	PC4NUSKEN			
	Panel Net Weight		kg	6.70			
	Net Dimensions (WxHxD)		mm	950 x 30 x 950			
Additional Accessories	Drain Pump	Drain Pump	-/Model	Built-in			
		Max. Lifting Height / Displacement	mm/litre/h	750 / 24			
	Air Filter		-	Long life filter			
	Panel Options		Waffle	PC4NUSKAN			
			Black	PC4NBSKAN			
	Virus Doctor			MSD-CAN1			

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Stylish and Aesthetic Panel

4Way Cassette S supports two different pattern designs of panels. You can select between the Waffle and Classic pattern, depending on your interior's look or personal preference.

Waffle Pattern

Classic Pattern

Individual Blade Control

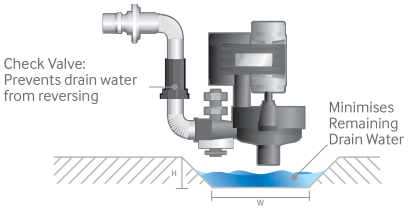
By using a remote controller, the opening angles of the 4 blades can be individually set at the same or different angles within a 32°~65° range for more efficient cooling.

*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

	AM090FN4DEH	AM112FN4DEH	AM128FN4DEH	AM140FN4DEH
	9.0	11.2	12.8	14.0
	10.0	12.5	13.8	16.0
	7.3	9.1	10.4	11.4
	5.7	7.1	8.1	8.5
	8.4	10.5	11.5	13.4
	19.50 / 18.00 / 16.50	26.00 / 24.00 / 22.00	28.00 / 26.00 / 23.00	30.00 / 28.00 / 26.00
	325 / 300 / 275	433 / 400 / 366	466 / 433 / 383	500 / 466 / 433
	3/8			
	5/8			
	1.5 / 2.5			
	5A			
	40 / 37 / 34	41 / 39 / 37	42 / 40 / 37	44 / 42 / 39
	15.50	17.00	15.50	19.00
	840 x 204 x 840	840 x 246 x 840	840 x 288 x 840	
	PC4NUSKEN			
	6.70			
	950 x 30 x 950			
	Built-in			
	750 / 24			
	Long life filter			
	PC4NUSKAN			
	PC4NBSKAN			
	MSD-CAN1			

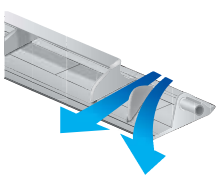
No Overflowing Drain Water

The check valve on the drain pump prevents drained water from flowing backward into the drain pan. This minimises the drain pan's water level so that you will never have to worry about water stagnation or overflowing drain water that could drip into your interior.



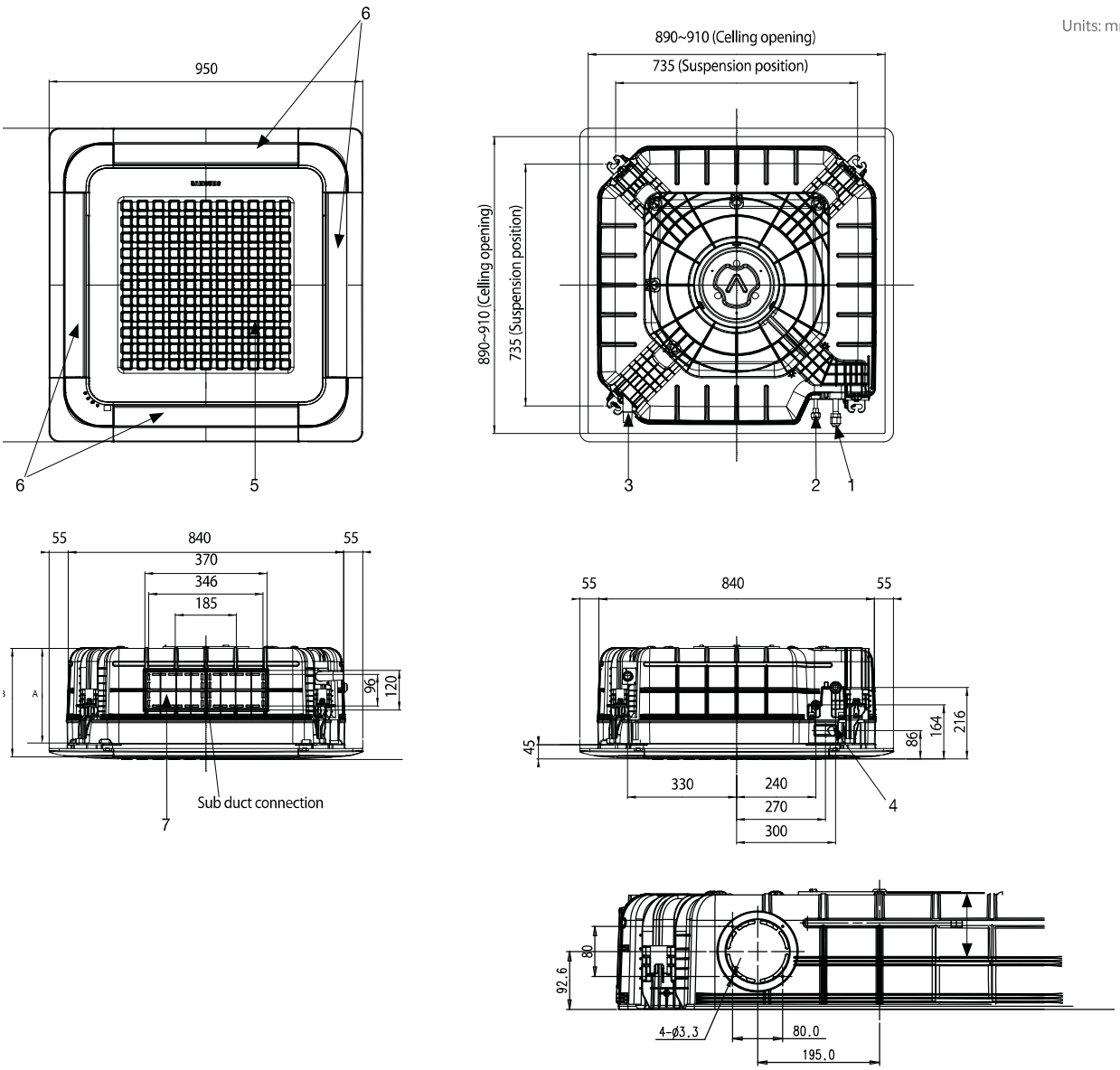
Surround Air Flow

The 4-way outlet can cool every portion of your interior. The new and practical design of the blades minimises blind spots at the corners of the panel, and can almost cover a full 360° around the indoor unit.



4Way Cassette Dimensional Drawing

Units: mm



No.	Name	Description			
		4.5/5.6kW	7.1/9.0kW	11.2kW	12.8/14.0kW
1	Liquid pipe connection	Ø6.35 Flare	Ø9.52 Flare		
2	Gas pipe connection	Ø12.70 Flare	Ø15.88 Flare		
3	Drain pipe connection	VP25 (OD 32, ID 25)			
4	Conduit for power supply and communication wiring	-			
5	Air inlet grille	-			
6	Air outlet louver	-			
7	Sub-duct	-			

		Description			
		4.5/5.6kW	7.1/9.0kW	11.2kW	12.8/14.0kW
A	mm	204		246	288
B	mm	253		295	337

Optional Accessories

Virus Doctor: Healthy Air Provider

Our Virus Doctor device eliminates airborne contaminants and creates even healthier air for your environments. This optional device can be easily installed by simply inserting the Virus Doctor kit into the indoor unit.

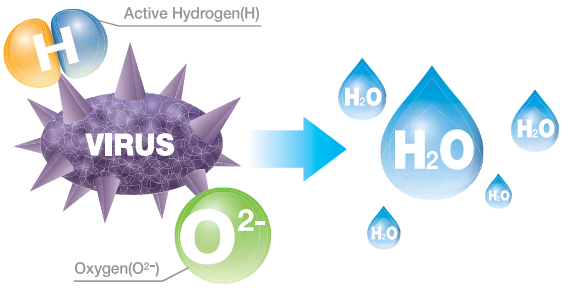
The Virus Doctor device generates active hydrogen and oxygen ions which eliminate biological contaminants and active oxygen (OH-radical) in the air by turning them into harmless H_2O.

Virus doctor is standard on Console and A3050 wall units.

Virus Doctor is optional on 360 cassette, Duct S, 11.2kW and 14kW Ceiling and ERV+ units.

- Elimination of airborne virus and bacteria (subtype H1N1)
- Complete eradiction of bacteria
- Relief of allergies by eradicating airborne allergens
- Neutralisation of OH-radical (as known as active oxygen)

Virus and Active Hydrogen turns into harmless H_2O



MDS – Motion Detect Sensor (Mini 4Way)

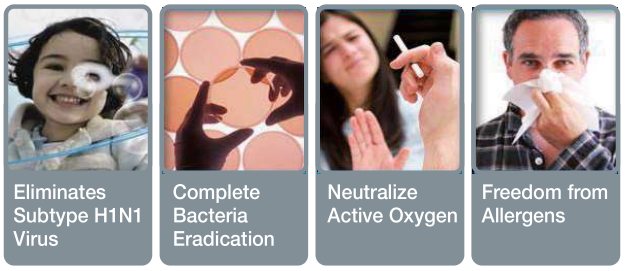
The world's first MDS for Mini 4Way Cassette(s) creates the ideal environment, saving energy by providing the optimised amount of airflow when needed.

Energy Saving On/Off Function

MDS detects when the user is absent, automatically stopping the air conditioning operation. It also automatically sets operation patterns to maximise energy efficiency.

Pleasant and Comfortable Air

MDS enables the indoor unit to avoid directly providing airflow to people and reduces the difference of thermal sensation in the body by detecting the temperature around floor.



Mini 4Way Cassette

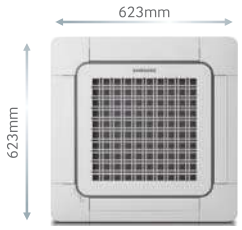
Specifications

Model Name				AM015HNNDEH	AM022FNNDEH	AM028FNNDEH	AM036FNNDEH	AM045FNNDEH	AM056FNNDEH	AM060FNNDEH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	1.50	2.20	2.80	3.60	4.50	5.60	6.00
		Heating*3)		1.70	2.50	3.20	4.00	5.00	6.30	6.80
	Capacity (UK Conditions)	Cooling (Total)*5)		1.20	1.8	2.3	2.9	3.7	4.6	4.9
		Cooling (Sensible)*5)		1.0	1.6	2.1	2.2	2.8	3.8	4.0
		Heating*6)		1.4	2.4	2.7	3.3	4.2	5.3	5.9
Fan	Air Flow Rate	H/M/L (UL)	CMM	8.2 / 7 / 6.3	9 / 7.7 / 6.5	10/ 8.5 / 7.5	10.5 / 9.5 / 8	11.5 / 10.2 / 9	13 / 11/ 9.5	13.5 / 12 / 10.2
			l/s	137 / 117 / 105	150 / 128 / 108	166 / 141 / 125	175 / 158 / 133	191 / 170 / 150	216 / 183 / 158	225 / 200 / 170
Piping Connections	Liquid Pipe		Ø, inch	1/4						
	Gas Pipe			1/2						
Fuse Rating				5A						
Sound	Sound Pressure	High/Mid/Low*4)	dBA	30 / 28 / 23	32 / 30 / 27	34 / 30 / 26	36 / 34 / 31	36 / 35 / 33	40 / 37 / 34	41 / 38 / 35
Dimensions	Net Weight		kg	12.00						
	Net Dimensions (WxHxD)		mm	575 x 250 x 575						
Panel Size	Panel Model		-	PC4SUSMEN						
	Panel Net Weight		kg	2.70						
	Net Dimensions (WxHxD)		mm	670 x 45 x 670						
Additional Accessories	Drain Pump	Drain Pump	-/Model	Built-in						
		Max. Lifting Height / Displacement	mm/litre/h	750 / 24						
	Air Filter		-	Long life filter						
	Panel Option			PC4SUSMAN						
	Motion Detector Sensor			MCR-SMA						
	Virus Doctor			MSD-CAN1						

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

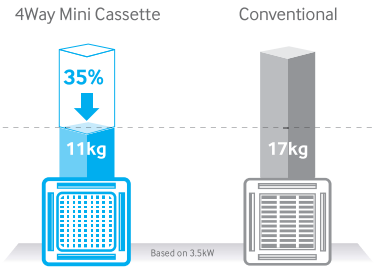
Ideal Compact Size

4Way Mini Cassette air conditioner can be installed on one standard ceiling tile (600Wx600D), which can reduce installation time.



Compact and Light Unit

The Samsung 4Way Mini Cassette indoor unit is now lighter in weight at 11kg. It is the lightest indoor unit in the industry, about 35% lighter than our competitor's products.

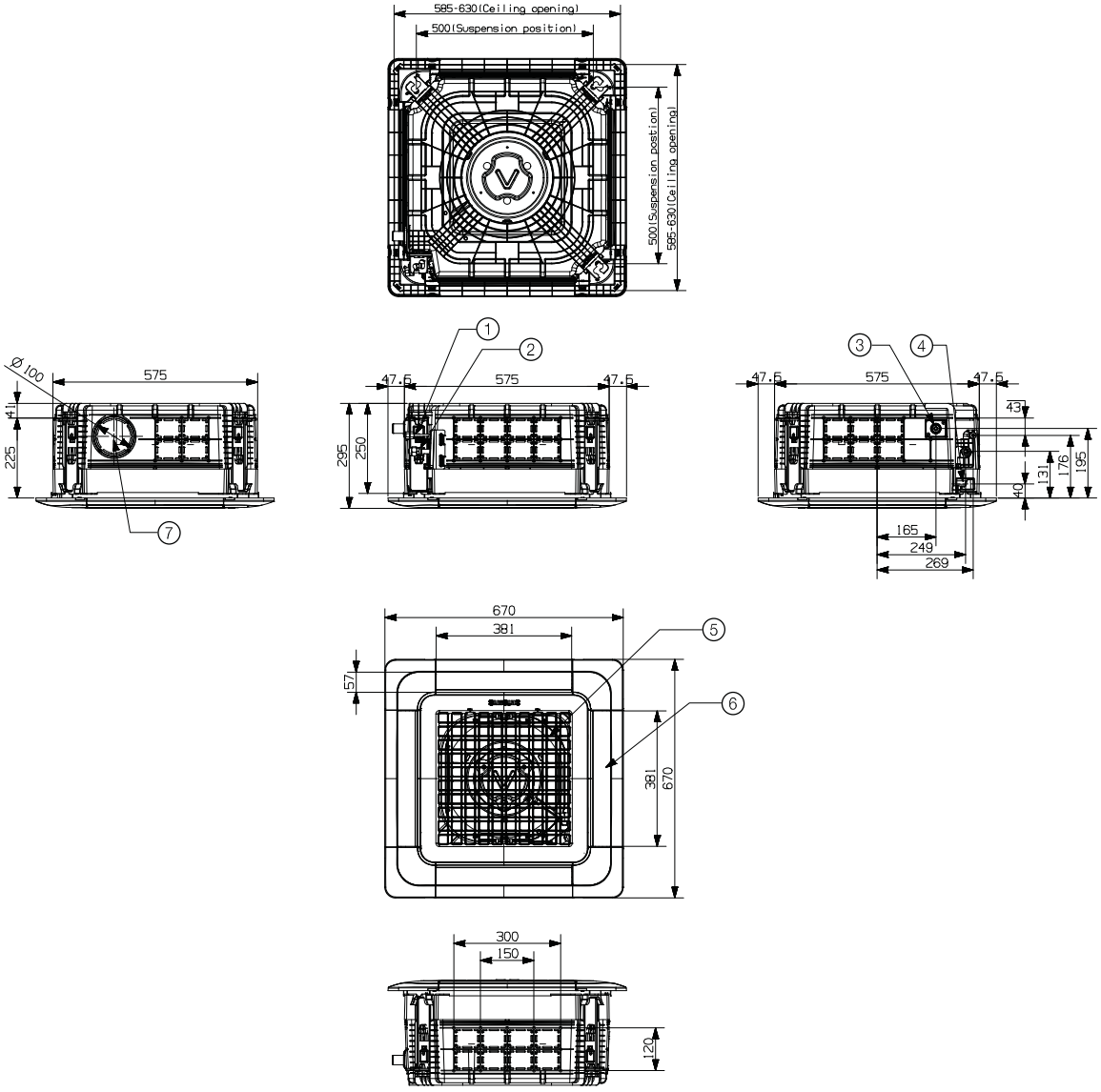


*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

Mini 4Way Cassette

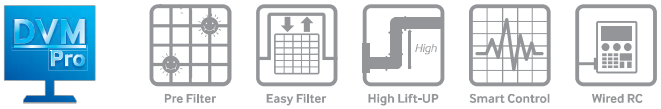
Dimensional Drawing

Units: mm



No.	Name	Description
1	Liquid pipe connection	Ø6.35 Flare
2	Gas pipe connection	Ø12.70 Flare
3	Drain pipe connection	VP25 (OD 32, ID 25)
4	Conduit for power supply and communication wiring	-
5	Air inlet grille	-
6	Air outlet louver	-
7	Fresh air intake	Ø100

Slim Duct Specifications

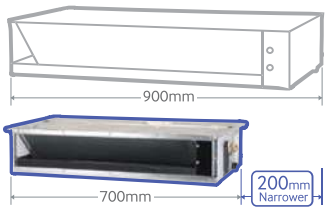


Model Name				AM017FNLDEH	AM022FNLDEH	AM028FNLDEH	AM036FNLDEH	AM045FNLDEH	AM056FNLDEH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	1.7	2.2	2.8	3.6	4.5	5.6
		Heating*3)		1.9	2.5	3.2	4.0	5.0	6.3
	Capacity (UK Conditions	Cooling (Total)*5)		1.4	1.8	2.3	2.9	3.7	4.6
		Cooling (Sensible)*5)		1.2	1.4	1.8	2.3	3.0	3.6
		Heating*6)		1.8	2.4	2.7	3.3	4.2	5.3
Fan	Air Flow Rate	H/M/L (UL)	CMM	5.5 / 4.3 / 3.2	7 / 6.1 / 5.3	7.5 / 6.6 / 5.6		11 / 9.6 / 8.3	12 / 10.5 / 9
			l/s	92 / 72 / 53	116 / 101 / 88	125 / 110 / 93		183 / 160 / 138	200 / 175 / 150
	External Static Pressure	Min/Std/Max	mmAq	0.00 / 1.00 / 3.00				0.00 / 2.00 / 4.00	
			Pa	0.00 / 9.81 / 29.42				0.00 / 19.61 / 39.23	
			WG	0 / 0.039 /0.118				0 / 0.079 / 0.157	
Piping Connections	Liquid Pipe		Ø, inch	1/4					
	Gas Pipe			1/2					
Fuse Rating				5A					
Sound	Sound Pressure	High/Mid/Low*4)	dBA	21 / 20 / 19	26 / 24 / 21	28 / 26 / 23	32 / 30 / 27	35 / 31 / 26	36 / 34 / 31
Dimensions	Net Weight		kg	19.00			19.50	23.50	
	Net Dimensions (WxHxD)		mm	700 x 199 x 600				900 x 199 x 600	
Additional Accessories	Optional Drain Pump	Drain Pump	-/Model	MDP-E075SEE3D					
		Max. Lifting Height / Displacement	mm/litre/h	750 / 24					
	Air Filter		-	Long life filter					

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

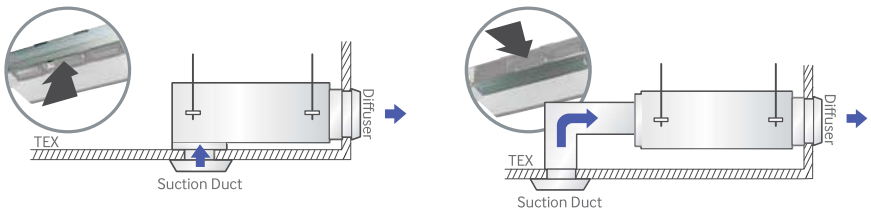
Compact Size

Slim Duct S has achieved a more compact and slim size with its width, which is 200mm narrower than conventional products. This enables flexible installation and maintenance in various spaces.



Flexible Installation

The air inlet can be set up either on the bottom or rear of the unit, giving you greater flexibility in installation.



*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

	AM071FNLDEH	AM090FNLDEH	AM112FNLDEH	AM128FNLDEH	AM140FNLDEH
	7.1	9.0	11.2	12.8	14.0
	8.0	10.0	12.5	13.8	16.0
	5.8	7.3	9.1	10.4	11.4
	5.0	6.3	7.7	8.8	9.6
	6.7	8.4	10.5	11.5	13.4
	16.5 / 15 / 13.5	29/ 27 / 25	31.2 / 29 / 27	34 / 32 / 30	36 / 34 / 32
	275 / 250 / 225	483 / 450 / 416	520 / 483 / 450	566 / 533 / 500.00	600.00 / 566.67 / 533.33
	0.00 / 2.00 / 4.00	0.00 / 3.00 / 6.00			
	0.00 / 19.61 / 39.23	0.00 / 29.42 / 58.84			
	0 / 0.079 / 0.157	0 /0.118 / 0.236			
	3/8				
	5/8				
	5A				
	38 / 36 / 33	37 / 36 / 34			39 / 38 / 36
	30.00	44.00		46.00	
	1100 x 199 x 600	1300 x 295 x 690			
	MDP-E075SEE3D				
	750 / 24				
	Long life filter				

Indoor Discharge Temperature Control

Without changing the outdoor unit's setting, each ducted indoor unit or AHU kit has a discharge air temperature control function, offering greater comfort in cooling or heating mode.

This is set by each MWR-WE10N remote control in detailed setting mode and is only applicable to ALL ducted/AHU connected systems.

Target Temperature

Cooling: 11~18 degrees

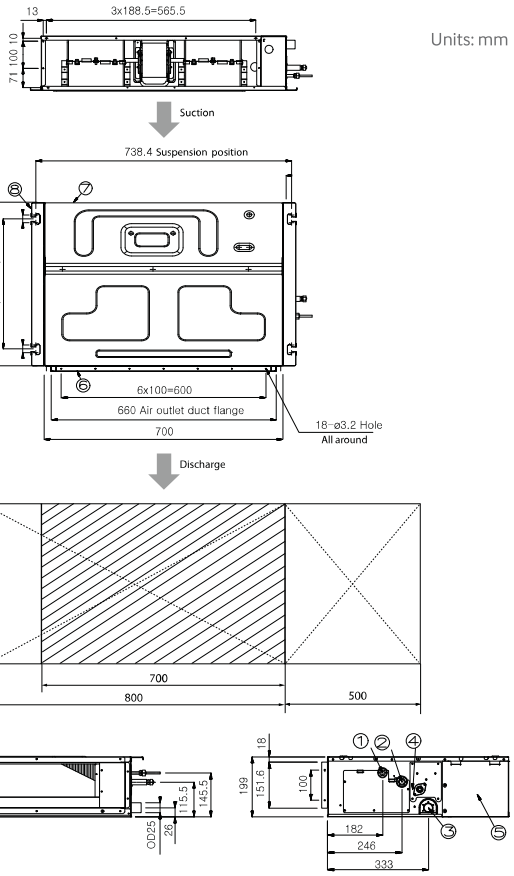
Heating: 30~43 degrees

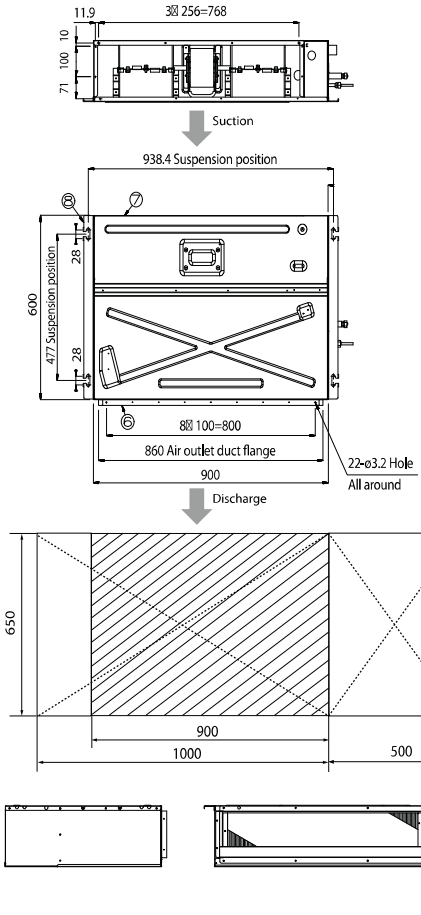
Slim Duct

Dimensional Drawings | AM017/022/028/036/045/056FNLDEH

Units: mm

Models	AM017/022/028/036FNLDEH			
No.	Name	Description		
		2.2kW	2.8kW	3.6kW
1	Liquid pipe connection	Ø6.35 Flare		
2	Gas pipe connection	Ø12.70 Flare		
3	Drain pipe connection without optional drain pump kits	VP25 (OD 32, ID 25)		
4	Drain pipe connection with optional drain pump kits	VP25 (OD 32, ID 25)		
5	Power supply/ Communication connection	-		
6	Power supply connection	-		
7	Air discharge grille flange	-		
8	Hook	3/8" or M10		





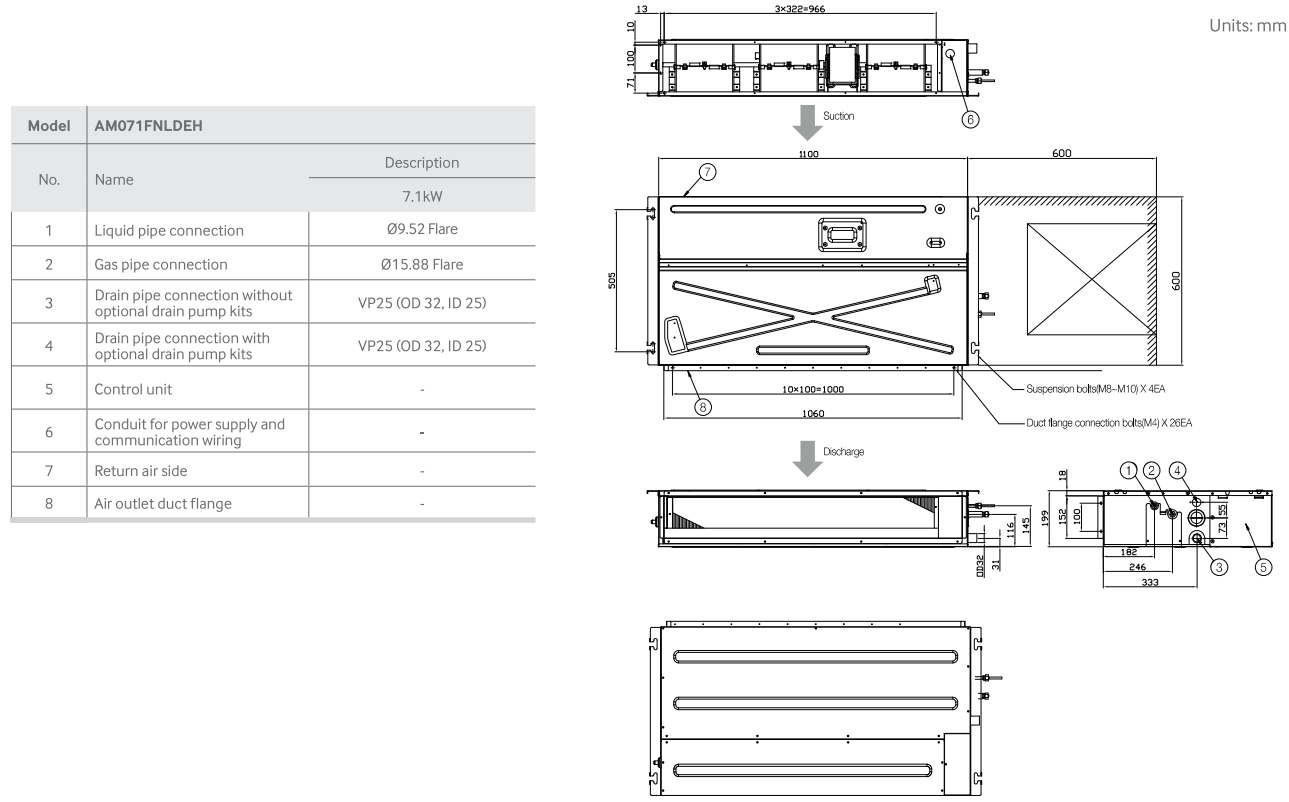
Models	AM045/056FNLDEH		
No.	Name	Description	
		4.5kW	5.6kW
1	Liquid pipe connection	Ø6.35 Flare	
2	Gas pipe connection	Ø12.70 Flare	
3	Drain pipe connection without optional drain pump kits	VP25 (OD 32, ID 25)	
4	Drain pipe connection with optional drain pump kits	VP25 (OD 32, ID 25)	
5	Control unit	-	
6	Conduit for power supply and communication wiring	-	
7	Return air side	-	
8	Air outlet duct flange	-	

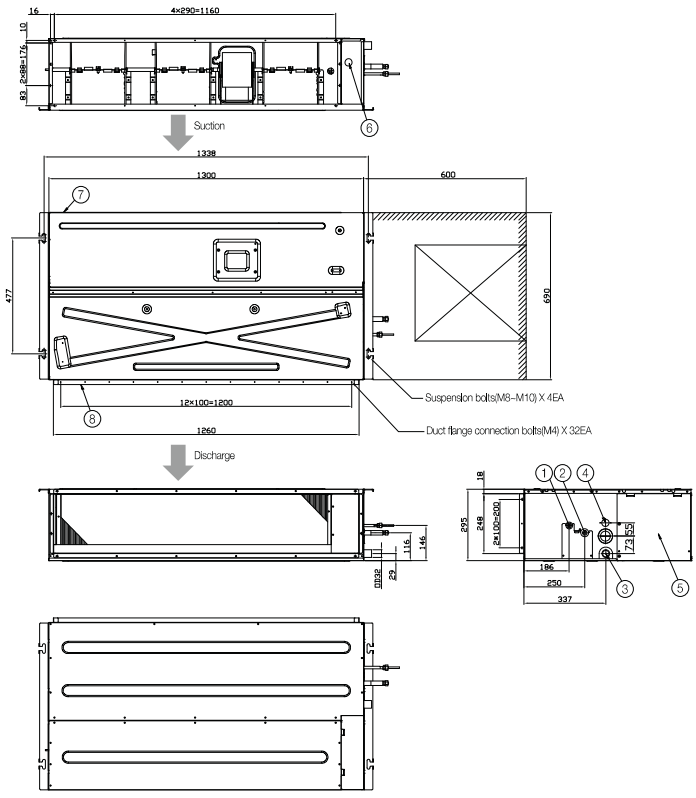
Slim Duct

Dimensional Drawings | AM071/090/112/128/140FNLDEH

Units: mm

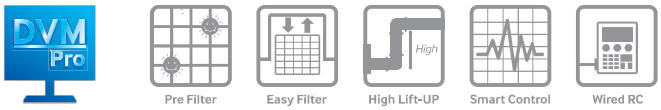
Model	AM071FNLDEH	
No.	Name	Description
		7.1kW
1	Liquid pipe connection	Ø9.52 Flare
2	Gas pipe connection	Ø15.88 Flare
3	Drain pipe connection without optional drain pump kits	VP25 (OD 32, ID 25)
4	Drain pipe connection with optional drain pump kits	VP25 (OD 32, ID 25)
5	Control unit	-
6	Conduit for power supply and communication wiring	-
7	Return air side	-
8	Air outlet duct flange	-





Models	AM090/112/128/140FNLDEH				
No.	Name	Description			
		9.0kW	11.2kW	12.8kW	14.0kW
1	Liquid pipe connection	Ø9.52 Flare			
2	Gas pipe connection	Ø15.88 Flare			
3	Drain pipe connection without optional drain pump kits	VP25 (OD 32, ID 25)			
4	Drain pipe connection with optional drain pump kits	VP25 (OD 32, ID 25)			
5	Control unit	-			
6	Conduit for power supply and communication wiring	-			
7	Return air side	-			
8	Air outlet duct flange	-			

MSP Duct Specifications



Model Name				AM022FNMDEH	AM028FNMDEH	AM036FNMDEH	AM045FNMDEH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	2.2	2.8	3.6	4.5
		Heating*3)		2.5	3.2	4.0	5.0
	Capacity (UK Conditions)	Cooling (Total)*5)		1.8	2.3	2.9	3.7
		Cooling (Sensible)*5)		1.5	1.9	2.5	3.2
		Heating*6)		2.4	2.7	3.3	4.2
Fan	Air Flow Rate	H/M/L (UL)	CMM	8.50 / 7.50 / 6.30	10.00 / 9.20 / 7.50	12.00 / 10.20 / 8.80	14.00 / 12.00 / 10.50
			l/s	141 / 125 / 105	166 / 153 / 125	200 / 170 / 146	233 / 200 / 175
	External Static Pressure	Min/Std/Max	mmAq	0.00 / 2.00 / 6.00			0.00 / 4.00 / 8.00
			Pa	0.00 / 19.61 / 58.84			0.00 / 39.23 / 78.45
			WG	0 / 0.079 / 0.236			0 / 0.157 / 0.314
Piping Connections	Liquid Pipe		Ø, inch	1/4			
	Gas Pipe			1/2			
Fuse Rating				5A			
Sound	Sound Pressure	High/Mid/Low*4)	dBA	23 / 21 / 19	24 / 22 / 19	29 / 27 / 24	32 / 30 / 28
Dimensions	Net Weight		kg	23.50			29.00
	Net Dimensions (WxHxD)		mm	900 x 199 x 600			900 x 260 x 480
Additional Accessories	Optional Drain Pump	Drain Pump	-/Model	MDP-E075SEE3D			MDP-M075SGU3D
		Max. Lifting Height / Displacement	mm/litre/h	750 / 24			
	Air Filter		-	Long life filter			

Strong and Large Coverage Area

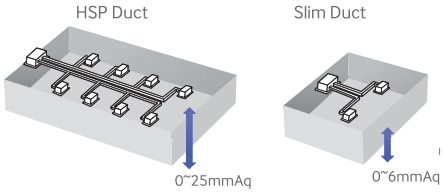
HSP duct features greater static pressure than most slim ducts: this enables you to design more inlets and outlets with longer duct work to provide even more cool or warm air to larger areas.

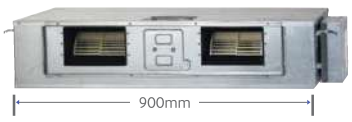
Narrow Width

MSP Duct has very narrow width of 900mm, which enables flexible installation and maintenance with its compact size, thus maximising your convenience.

Silent Operation with the Static Pressure Control

The external static pressure control makes it easy to design the duct work to ensure efficiency and silent operation.





*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

	AM056FNMDEH	AM071FNMDEH	AM090FNMDEH	AM112FNMDEH
	5.6	7.1	9.0	11.2
	6.3	8.0	10.0	12.5
	4.6	5.8	7.3	9.1
	3.9	5.0	6.3	7.5
	5.3	6.7	8.4	10.5
	14.50 / 13.00 / 11.50	18.50 / 17.00 / 15.50	19.50 / 18.00 / 16.50	27.00 / 25.00 / 23.00
	241 / 216 / 191	308 / 283 / 258	325 / 300 / 275	450 / 416 / 383
	0.00 / 4.00 / 8.00	0.00 / 4.00 / 8.00	4.00 / 6.00 / 8.00	4.00 / 8.00 / 12.00
	0.00 / 39.23/ 78.45	0.00 / 39.23 / 7 8.45	39.23 / 58.84 / 78.45	39.23 / 78.45 / 117.68
	0 / 0.157 / 0.314	0 / 0.157 / 0.314	0.157 / 0.236 / 0.315	0.236 / 0.314/ 0.472
	1/4	3/8		
	1/2	5/8		
	5A	5A		
	35 / 33 / 31	39 / 35 / 31	40 / 37 / 34	41 / 40 / 38
	29.00	29.00	34.00	36.00
	900 x 260 x 480	900 x 260 x 480	1150 x 260 x 480	1150 x 320 x 480
	MDP-M075SGU3D	MDP-M075SGU3D	MDP-M075SGU1D	
	750 / 24			
	Long life filter			

Indoor Discharge Temperature Control

Without changing the outdoor unit's setting, each ducted indoor unit or AHU kit has a discharge air temperature control function, offering greater comfort in cooling or heating mode.

This is set by each MWR-WE10N remote control in detailed setting mode and is only applicable to ALL ducted/AHU connected systems.

Target Temperature

Cooling: 11~18 degrees

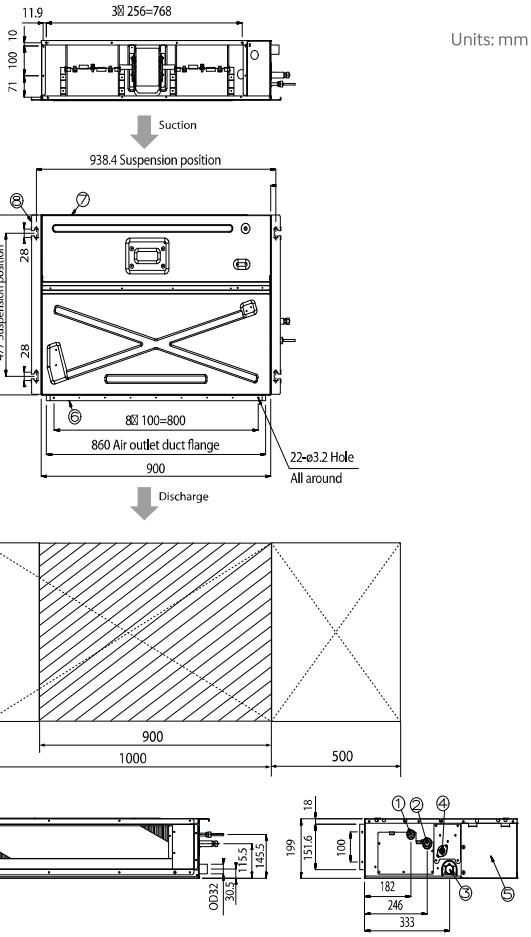
Heating: 30~43 degrees

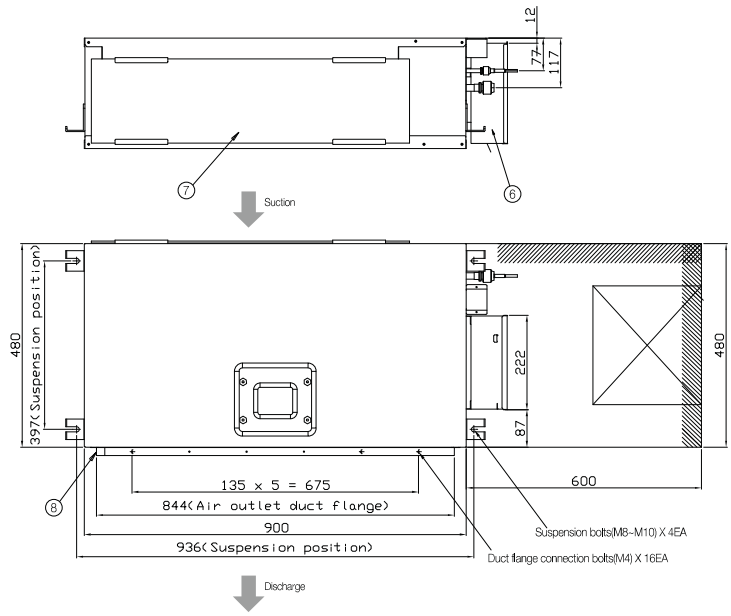
MSP Duct

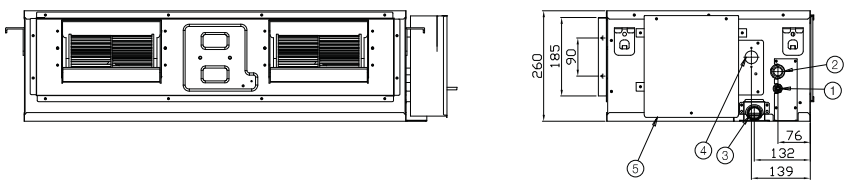
Dimensional Drawings | AM022/028/036/045/056/071FNMDEH

Units: mm

Models	AM022/028/036FNMDEH			
No.	Name	Description		
		2.2kW	2.8kW	3.6kW
1	Liquid pipe connection	Ø6.35 Flare		
2	Gas pipe connection	Ø12.70 Flare		
3	Drain pipe connection without optional drain pump kits	VP25 (OD 32, ID 25)		
4	Drain pipe connection with optional drain pump kits	VP25 (OD 32, ID 25)		
5	Control unit	-		
6	Conduit for power supply and communication wiring	-		
7	Return air side	-		
8	Air outlet duct flange	-		





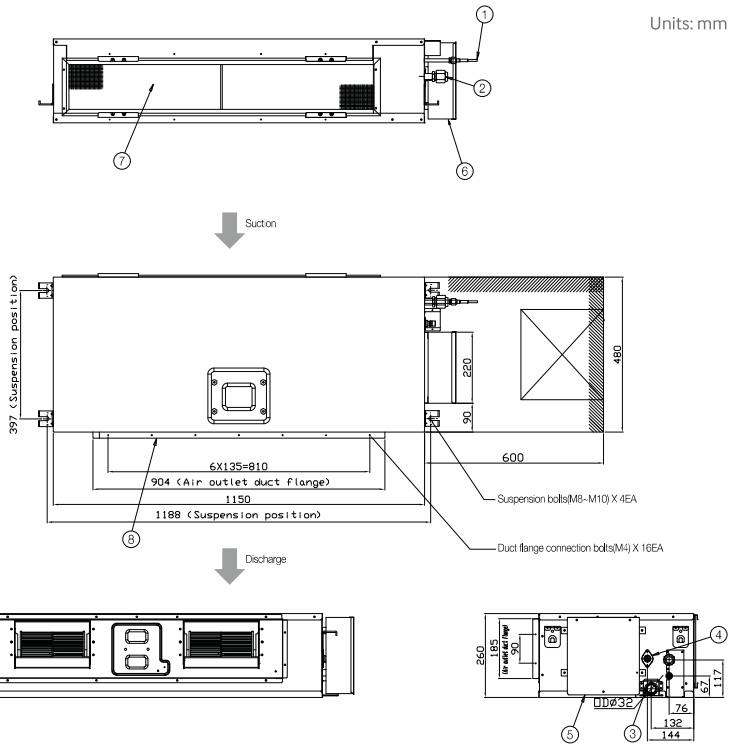


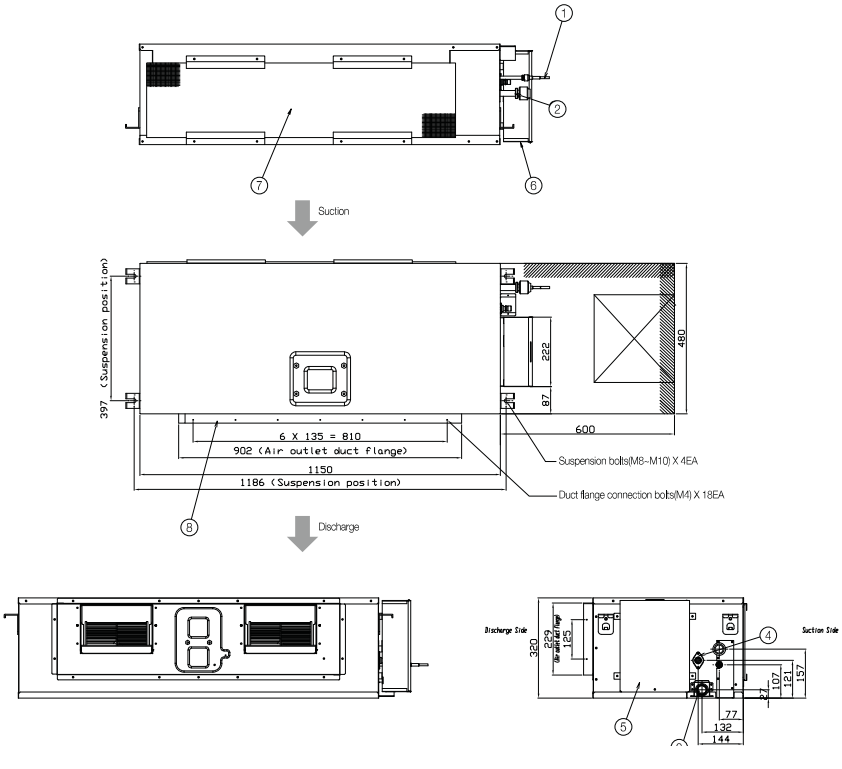
Models	AM045/056/071FNMDEH			
No.	Name	Description		
		4.5kW	5.6kW	7.1kW
1	Liquid pipe connection	Ø6.35 Flare		Ø6.35 Flare
2	Gas pipe connection	Ø12.70 Flare		Ø15.88 Flare
3	Drain pipe connection without optional drain pump kits	VP25 (OD 32, ID 25)		
4	Drain pipe connection with optional drain pump kits	VP25 (OD 32, ID 25)		
5	Control unit	-		
6	Conduit for power supply and communication wiring	-		
7	Return air side	-		
8	Air outlet duct flange	-		

AM090/112FNMDEH

Units: mm

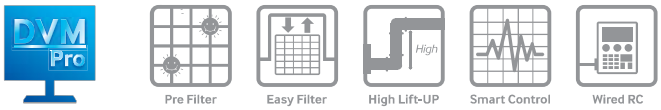
Model	AM090FNMDEH	
No.	Name	Description
		9.0kW
1	Liquid pipe connection	Ø9.52 Flare
2	Gas pipe connection	Ø15.88 Flare
3	Drain pipe connection without optional drain pump kits	VP25 (OD 32, ID 25)
4	Drain pipe connection with optional drain pump kits	VP25 (OD 32, ID 25)
5	Control unit	-
6	Conduit for power supply and communication wiring	-
7	Return air side	-
8	Air outlet duct flange	-





Model	AM112FNMDEH	
No.	Name	Description
		11.2kW
1	Liquid pipe connection	Ø9.52 Flare
2	Gas pipe connection	Ø15.88 Flare
3	Drain pipe connection without optional drain pump kits	VP25 (OD 32, ID 25)
4	Drain pipe connection with optional drain pump kits	VP25 (OD 32, ID 25)
5	Control unit	-
6	Conduit for power supply and communication wiring	-
7	Return air side	-
8	Air outlet duct flange	-

MSP Duct S Specifications



Model Name				AM036HNMPKH	AM045HNMPKH	AM056HNMPKH	AM071HNMPKH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	3.6	4.5	5.6	7.1
		Heating*3)		4.0	5.0	6.3	8.0
	Capacity (UK Conditions)	Cooling (Total)*5)		2.9	3.7	4.6	5.8
		Cooling (Sensible)*5)		2.3	3.1	3.9	5.0
		Heating*6)		3.3	4.2	5.3	6.7
Fan	Air Flow Rate	H/M/L (UL)	CMM	12.00 / 9.50 / 8.00	14.00 / 11.00 / 8.00	12.00 / 9.50 / 8.00	22.00 / 19.00 / 16.00
			l/s	200 / 158 / 133	233 / 183 / 133	267 / 225 / 183	367 / 317 / 267
	External Static Pressure	Min/Std/Max	mmAq	2.50 / 15.00	3.00 / 15.00		3.00 / 15.00
			Pa	24.50 / 147.00	29.4 / 147.00		29.40 / 147.00
Piping Connections	Liquid Pipe		Ø, inch	1/4			3/8
	Gas Pipe			1/2			5/8
Fuse Rating				5A			5A
Sound	Sound Pressure	High/Mid/Low*4)	dBA	29 / 26 / 23	31 / 28 / 24	32 / 29 / 25	37 / 33 / 29
	Sound Power (cooling)			47.0	49.0		57.0
Dimensions	Net Weight		kg	25.5			25.50
	Net Dimensions (WxHxD)		mm	850 x 250 x 700			850 x 250 x 700
Additional Accessories	Optional Drain Pump	Drain Pump	-/Model	MDP-G075SP			
		Max. Lifting Height / Displacement	mm/litre/h				
	Virus Doctor			MSD-EAN1			
	Air Filter		-				

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

FME/FMC (HNMP models)
(Flat Micro-channel Evaporator/Condenser)

Samsung's FME/FMC technology achieves a 30% increase in efficiency compared with the conventional fin and tube type. It has also enabled a 30% decrease in unit size.

	Heat Exchange Ratio
Fin and Tube	100%
FMC	130%

Enhanced Performance
30% Enhanced heat exchange ratio

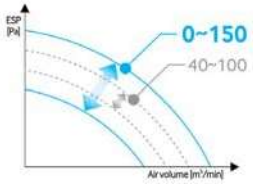
Anti-Corrosion Coating
Corrosion resistance has been improved compared to current model

Slim Fit

Compact Slim Fit design has reduced volume and weight compared to conventional air conditioners. It's 30% smaller, so it fits into small spaces. Although the size is smaller, efficiency is increased.

Wide Range of ESP

You can offer a comprehensive range of products. right capacity, right ESP, and right-sized product for our customers.



*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

	AM090HNMPKH	AM112HNMPKH	AM128HNMPKH	AM140HNMPKH
	9.0	11.2	12.8	14.0
	10.0	12.5	13.8	16.0
	7.3	9.1	10.4	11.4
	6.5	7.8	8.9	9.6
	8.4	10.5	11.5	13.4
	29.00 / 25.00 / 22.00	35.00 / 29.00 / 22.00	38.00 / 32.00 / 25.00	42.00 / 42.00 / 25.00
	483 / 417 / 367	583 / 483 / 367	633 / 533 / 417	700 / 567 / 417
	4.00 / 15.00	5.20 / 15.00		
	39.20 / 147.00	50.96 / 147.00		
	3/8			
	5/8			
	5A			
	38 / 35 / 32		39 / 36 / 32	40 / 37 / 32
	58.0	62.0	63.0	65.0
	32.50	38.50		
	1200 / 250 / 700	1300 x 300 x 700		
MDP-G075SP				
750 / 24				
MSD-EAN1				
Long life filter				

Indoor Discharge Temperature Control

Without changing the outdoor unit's setting, each ducted indoor unit or AHU kit has a discharge air temperature control function, offering greater comfort in cooling or heating mode.

This is set by each MWR-WE10N remote control in detailed setting mode and is only applicable to ALL ducted/AHU connected systems.

Target Temperature

Cooling: 11~18 degrees

Heating: 30~43 degrees

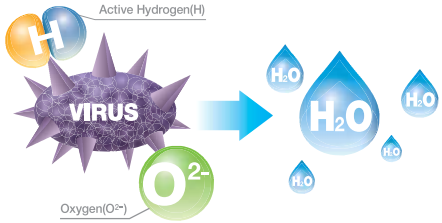
Virus Doctor (optional accessory)

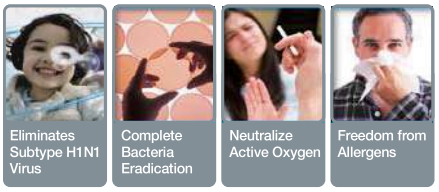
Our Virus Doctor device eliminates airborne contaminants and creates even healthier air for your environments. This optional device can be easily installed by simply inserting the Virus Doctor kit into the indoor unit.

The Virus Doctor device generates active hydrogen and oxygen ions which eliminate biological contaminants and active oxygen (OH-radical) in the air by turning them into harmless H_2O.

- Elimination of airborne virus and bacteria (subtype H1N1)
- Complete eradiction of bacteria
- Relief of allergies by eradicating airborne allergens
- Neutralisation of OH-radical (as known as active oxygen)

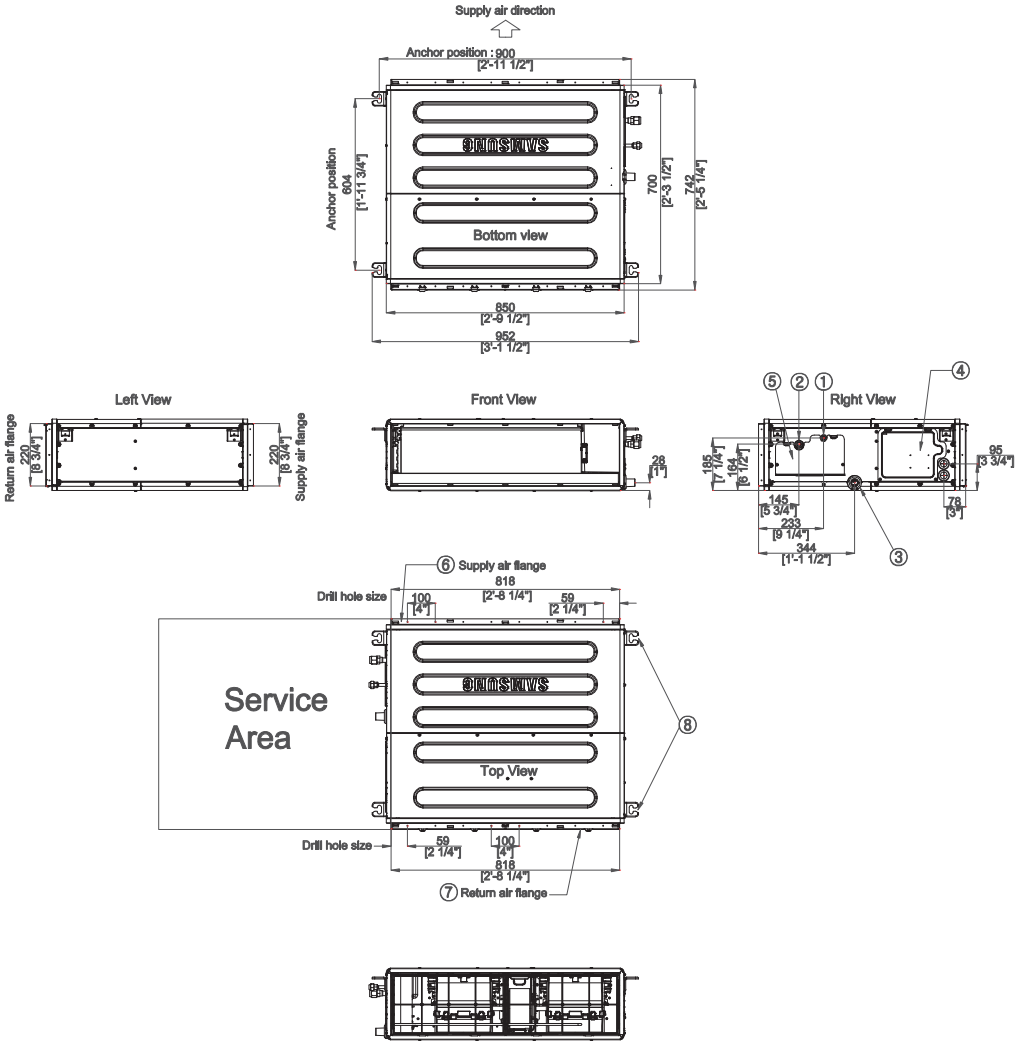
Virus and Active Hydrogen turns into harmless H_2O





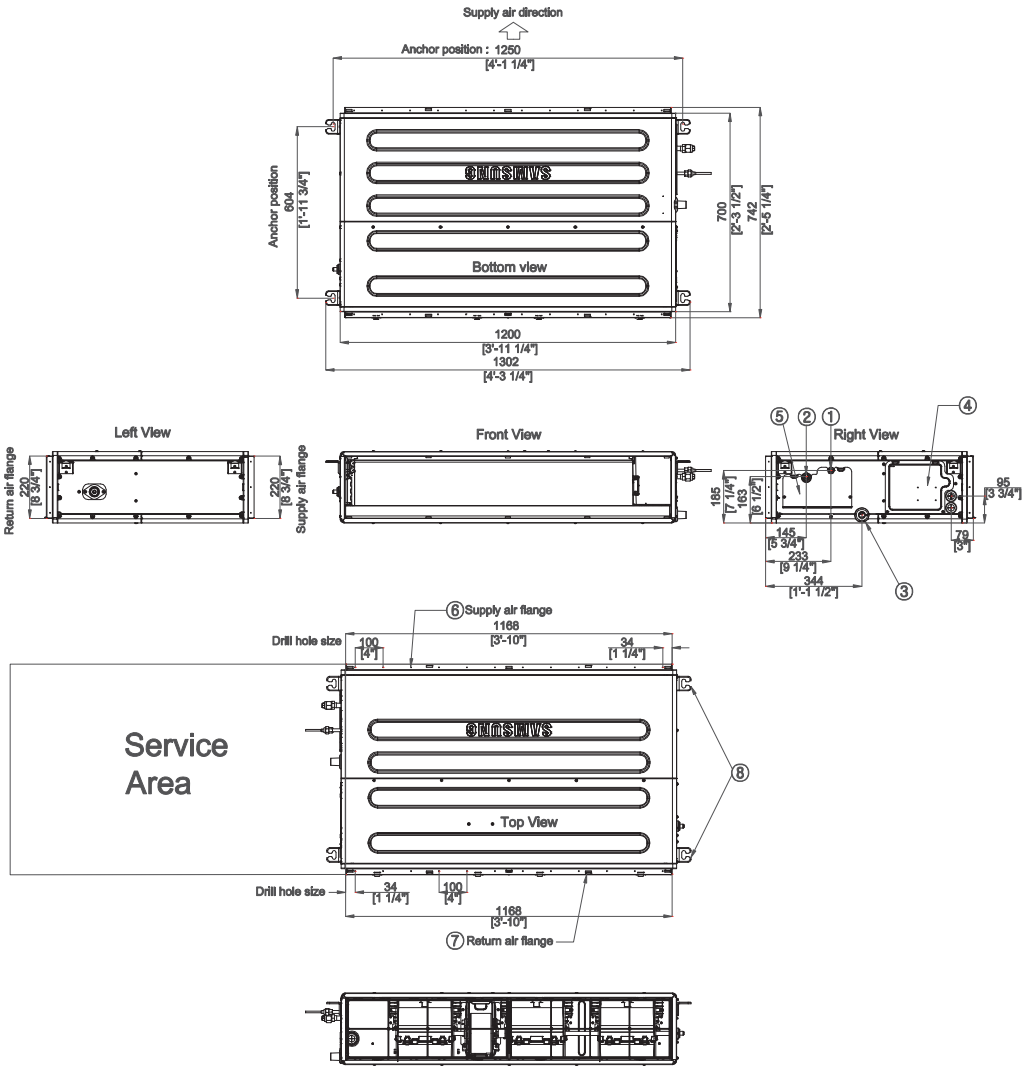
MSP Duct S Dimensional Drawings | AM036/045/056/071HNMPKH

Units: mm



Models	AM036/045/056/071HNMPKH
No.	Name
1	Refrigerant liquid pipe
2	Refrigerant gas pipe
3	Condensate drain
4	Power and communication wiring conduits
5	Refrigerant pipe conduits
6	Supply air flange
7	Return air flange
8	Hook

Units: mm

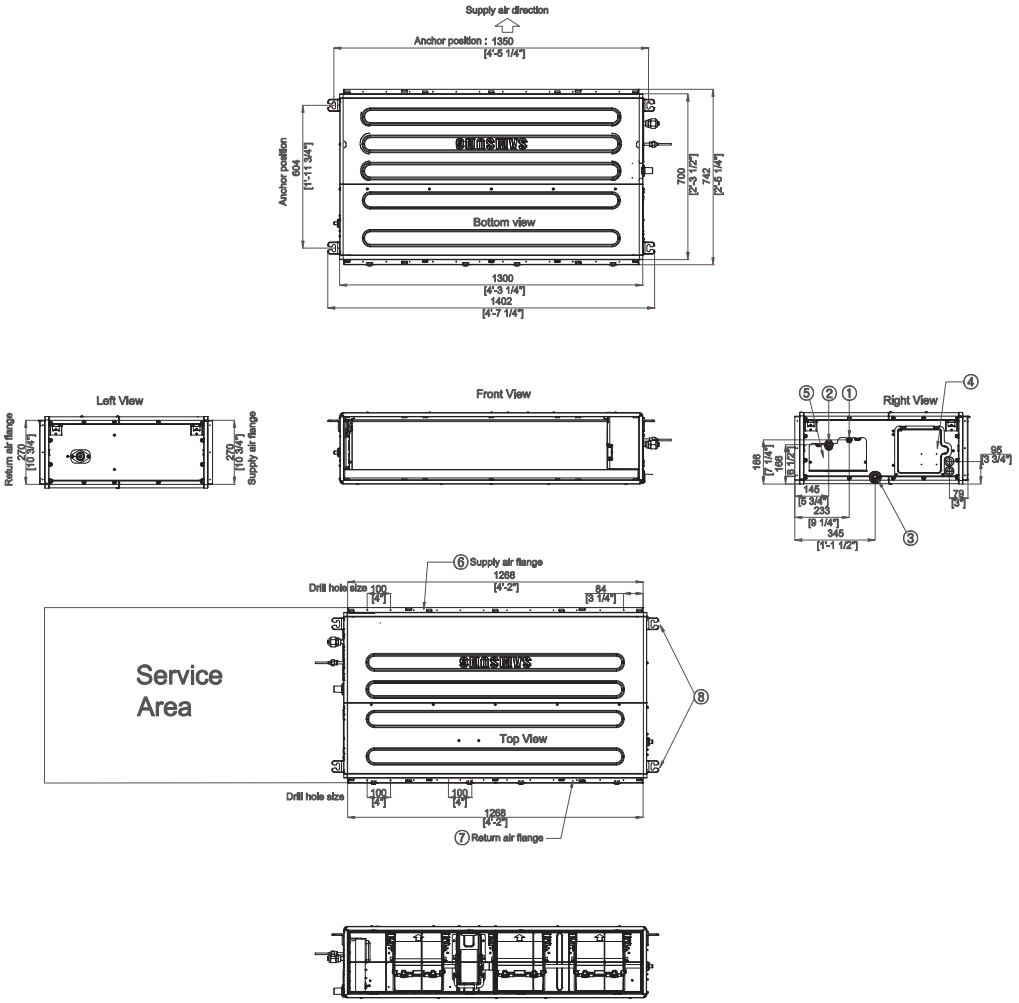


Models	AM090HNMPKH
No.	Name
1	Refrigerant liquid pipe
2	Refrigerant gas pipe
3	Condensate drain
4	Power and communication wiring conduits
5	Refrigerant pipe conduits
6	Supply air flanges
7	Return air flange
8	Hook

MSP Duct S

Dimensional Drawings | AM128/140HNMPKH

Units: mm



Models	AM045/056/071HNMPKH
No.	Name
1	Refrigerant liquid pipe
2	Refrigerant gas pipe
3	Condensate drain
4	Power and communication wiring conduits
5	Refrigerant pipe conduits
6	Supply air flanges
7	Return air flange
8	Hook

Air Handling Unit (AHU) Kit

The Samsung AHU kit allows DVM S outdoor units to connect to third-party AHUs.

Line-up

4-Kit line-up: 2.5HP~10HP.

- Multiple kits can be used together up to 80HP on a single DVM S system
- Use on all VRF (HP/HR)
- Can be installed on systems with other indoor unit types
- Self control (sensor included)
- Simple BMS can be applied – 0~10V control
- Compressor capacity and super heat control
- Discharge temperature control

AHU Kit Contents

- Control Kit (PCB, Terminal Block (contact module) in IP54 enclosure
- EEV (filter included)
- Temperature Sensor

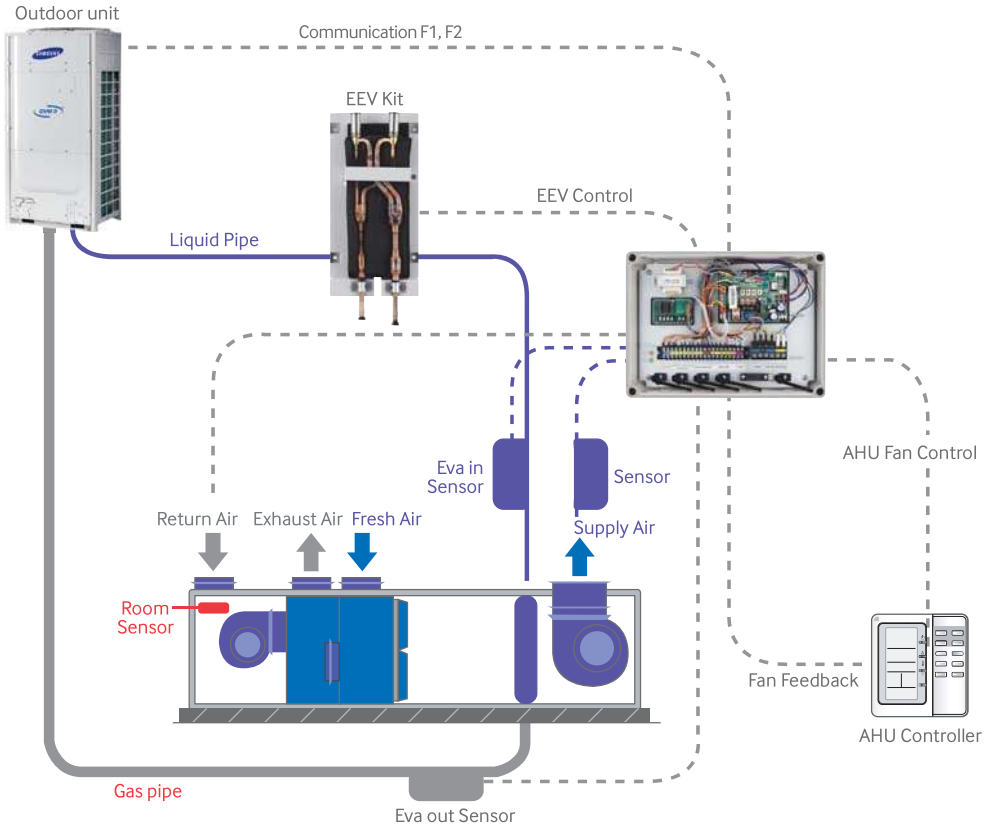
Optional Accessories

- Wired Remote Controller
- Central Controller – AHU icon option
- DMS2 – use AHU parameters in control
- Logic Programming

AHU Specifications

AHU Kit Model	Capacity	AHU Capacity Allowance (kW)		AHU Internal Heat Exchanger Volume Allowance (cm^3)	
		Minimum	Maximum	Minimum	Maximum
MXD-K025AN	2.5HP	7	8.75	1,200	1,500
MXD-K050AN	5.0HP	14	17.5	2,150	2,688
MXD-K075AN	7.5HP	21	26.25	3,100	3,875
MXD-K100AN	10HP	28	35	4,000	5,000

Example



HSP Duct Specifications

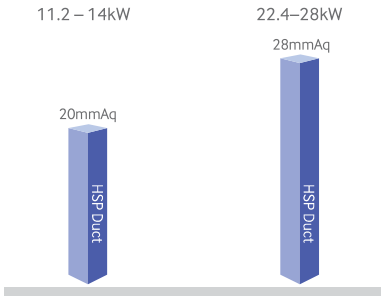
Pre Filter | Easy Filter | High Lift-UP | Smart Control | Wired RC

Model Name				AM112HNHPKH	AM128HNHPKH	AM140HNHPKH	AM180JNHFKH	AM224JNHFKH	AM280FNHDEH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	11.2	12.8	14.0	18.0	22.4	28.0
		Heating*3)		12.5	13.8	16.8	20.0	25.0	31.5
	Capacity (UK Conditions)	Cooling (Total)*5)		9.1	10.4	11.4	15.02	18.75	23.3
		Cooling (Sensible)*5)		7.8	8.9	9.6	11.42	13.68	19.9
		Heating*6)		10.5	11.5	13.4	19.32	24.14	30.4
Fan	Air Flow Rate	H/M/L (UL)	CMM	35 / 29 / 22	38 / 32 / 25	42 / 34 / 25	58 / 50 / 43	72 / 61 / 50	72 / 65 / 58
			l/s	583 / 483 / 367	633 / 533 / 417	700 / 567 / 417	967 / 833 / 717	1,200 / 1,017 / 833	1,200 / 1,083 / 966
	External Static Pressure	Min/Std/Max	mmAq	3 / 6 / 20			5 / 7.34 / 20		5 / 15 / 28
			Pa	29 / 61 / 196			49 / 72 / 196		49.03 / 147.10 / 274.59
Piping Connections	Liquid Pipe		Ø, inch	3/8					
	Gas Pipe			5/8			3/4		7/8
Fuse Rating				5A			13A		
Sound	Sound Pressure	High/Mid/Low*4)	dBA	38 / 35 / 32	39 / 36 / 32	40 / 37 / 32	43 / 39 / 35	44 / 40 / 36	48 / 46 / 43
Dimensions	Net Weight		kg	46.5			82.5		89
	Net Dimensions (WxHxD)		mm	1,300 x 300 x 700			1,350 x 450 x 910		89
Additional Accessories	Optional Drain Pump	Drain Pump	-/Model	MDP-G075SP					MDP-N047SNC1D
		Max Lifting Height / Displacement	mm/litre/h	750/24					
	Air Filter		-	-					

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

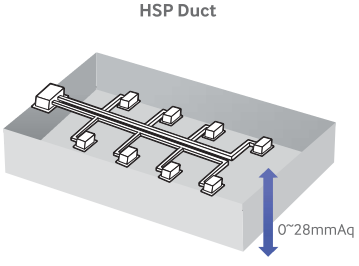
High External Static Pressure

To properly deal with unexpected various installation conditions, HSP Duct is designed to manage high external static pressures up to 28mmAq.



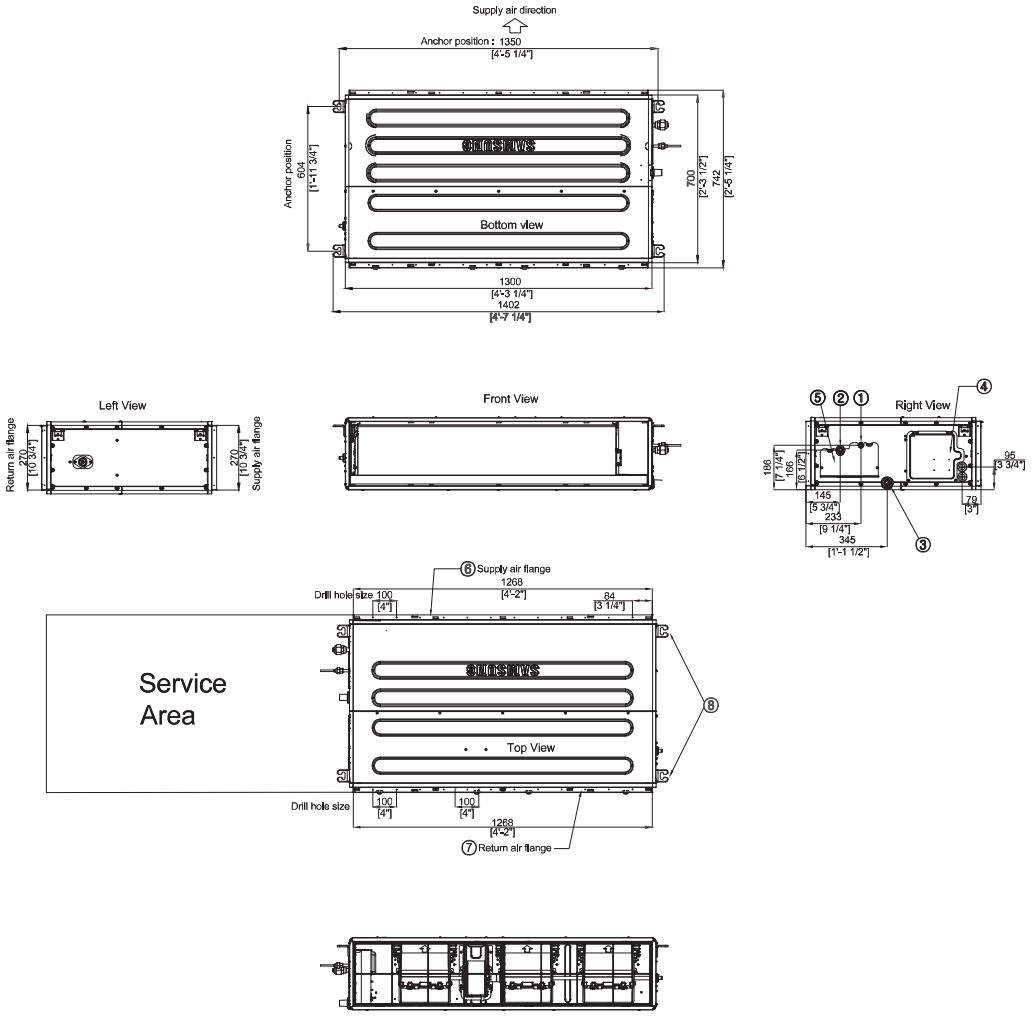
Strong and Large Coverage Area

HSP duct features greater static pressure than most slim ducts: this enables you to design more inlets and outlets with longer duct work to provide even more cool or warm air to larger areas.



*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

Units: mm



Models	AM112/128/140/220HNHPKH
No.	Name
1	Refrigerant liquid pipe
2	Refrigerant gas pipe
3	Condensate drain
4	Power and communication wiring conduits
5	Refrigerant pipe conduits
6	Supply air flange
7	Return air flange
8	Hook

Console Specifications

Virus Doctor | Interior Design | Anti-Virus Filter | Light Weight | Flexible

Model Name				AM022KNJDEH	AM028FNJDEH	AM036FNJDEH	AM045KNJDEH	AM056FNJDEH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	2.2	2.8	3.6	4.5	5.6
		Heating*3)		2.5	3.2	4.0	3.7	6.3
	Capacity (UK Conditions)	Cooling (Total)*5)		1.8	2.3	2.9	2.7	4.5
		Cooling (Sensible)*5)		1.5	2.0	2.3	4.4	3.5
		Heating*6)		2.4	2.7	3.3	-	5.2
Fan	Air Flow Rate	H/M/L (UL)	CMM	6.3/5.4/4.9	7.00 / 6.00/ 5.00	8.50 / 7.50 / 6.50	11.3/9.8/8.2	13.00 / 11.50 / 10.00
			l/s	105/90/82	116 / 100 / 83	141 / 125 / 108	188/163/137	216 / 191 / 166
Piping Connections	Liquid Pipe		Ø, inch	1/4				
	Gas Pipe			1/2				
	Drain Pipe		Ø, mm	ID 18 HOSE				
Fuse Rating				5A				
Sound	Sound Pressure	High/Mid/Low*4)	dBA	34/32/30	38 / 36 / 34	39 / 37 / 34	42/39/36	43 / 40 / 37
Dimensions	Net Weight		kg	15.5	16.00			
	Net Dimensions (WxHxD)		mm	720 x 620 x 199				
Additional Accessories	Air Filter		-	Long life filter				
	Virus Doctor			Built-in				

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Slim Design

You won't find anything slimmer than this: the new Console type air conditioner is only 199mm thick, the slimmest on the market, and its unobtrusive design easily integrates into your decor.

2Way Air Outlets

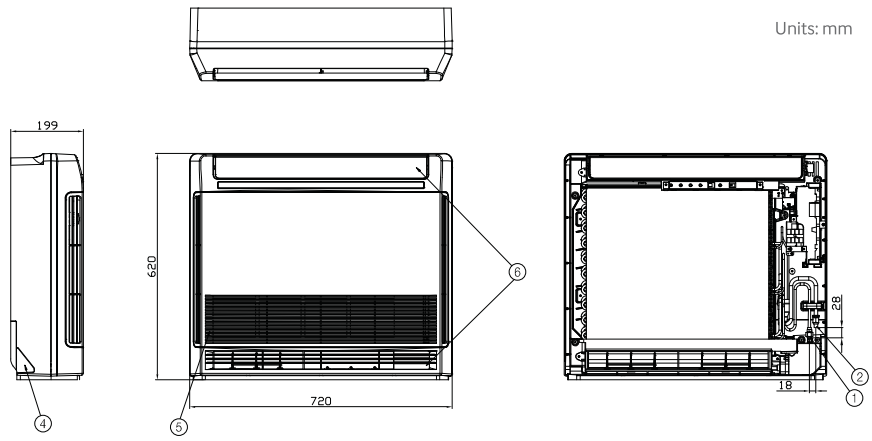
There are two separate air outlets for cooling and heating. The warmer air comes out from the bottom part of the air outlet to spread the warm air evenly throughout the room. Stay cooler and warmer in every corner of your room.

*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

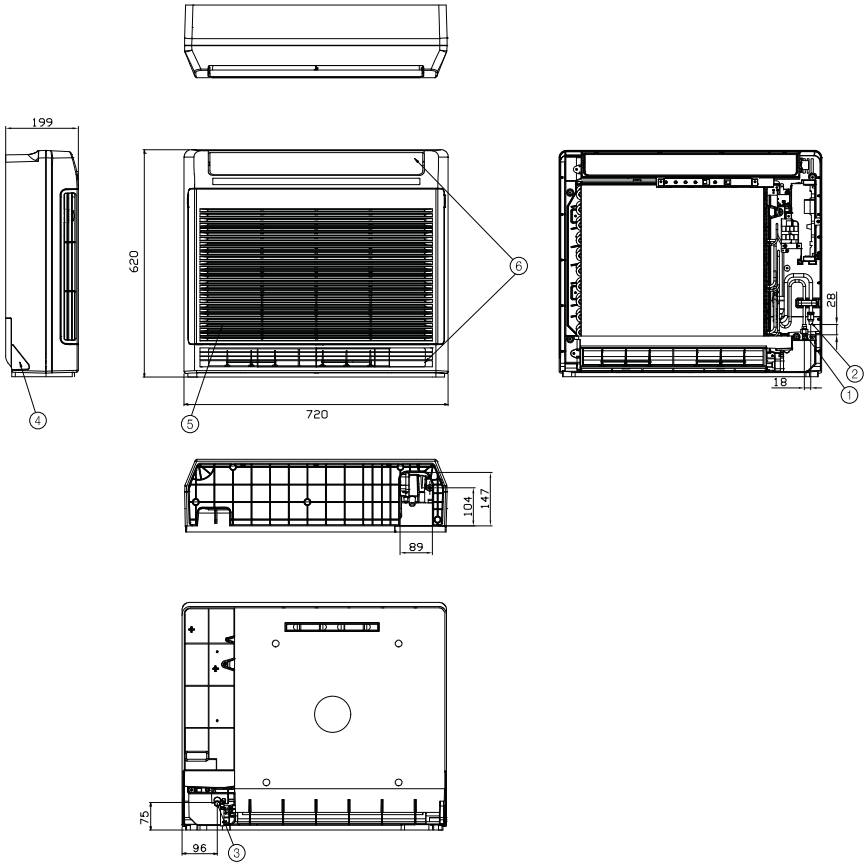
Console

Dimensional Drawings | AM028/036/056FNJDEH, AM022/045KNJDEH

Units: mm



Models	AM028/036FNJDEH/AM022KNJDEH		
No.	Name	Description	
		2.2kW	3.6kW
1	Liquid pipe connection	Ø6.35 Flare	
2	Gas pipe connection	Ø12.70 Flare	
3	Drain pipe connection	ID18 Hose	
4	Conduit for power supply and communication wiring	-	
5	Air inlet grille	-	
6	Air outlet louver	-	



Model	AM056FNJDEH/AM045KNJDEH	
No.	Name	Description
		5.6kW
1	Liquid pipe connection	Ø6.35 Flare
2	Gas pipe connection	Ø12.70 Flare
3	Drain pipe connection	ID18 Hose
4	Conduit for power supply and communication wiring	-
5	Air inlet grille	-
6	Air outlet louver	-

Ceiling Specifications

Interior Design | Anti-Virus Filter | Light Weight | Flexible

Model Name				AM056FNCDEH	AM071FNCDEH	AM112JNCDKH	AM140JNCDKH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	5.6	7.1	11.2	14.0
		Heating*3)		6.3	8.0	12.5	16.0
	Capacity (UK Conditions)	Cooling (Total)*5)		4.6	5.8	9.1	11.4
		Cooling (Sensible)*5)		3.5	4.4	7.1	8.5
		Heating*6)		5.3	6.7	10.5	13.4
Fan	Air Flow Rate	H/M/L (UL)	CMM	14.00 / 13.00/ 12.00	18.00 / 16.50 / 15.00	29.3/23.9/18.5	36.4/30.8/26.0
			l/s	233 / 216 / 200	300 / 275 / 250	488/398/308	607/513/433
Piping Connections	Liquid Pipe		Ø, inch	1/4	3/8		
	Gas Pipe			1/2	5/8		
Refrigerant Control				EEV Kit required		EEV Included	
Fuse Rating				5A			
Sound	Sound Pressure	High/Mid/Low*4)	dBA	40 / 37 / 34	44 / 42 / 40	45/41/37	46/43/38
Dimensions	Net Weight		kg	21.00		33.5	42.5
	Net Dimensions (WxHxD)		mm	1000 x 650 x 200		1350 x 235 x 675	1650 x 235 x 675
Additional Accessories	Air Filter		-	Long life filter			

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

2Way Installation (5.6 and 7.1kW models)

Depending on the available space and the purpose of the air conditioner, the indoor unit can be installed under the ceiling or on the floor.

Under Ceiling

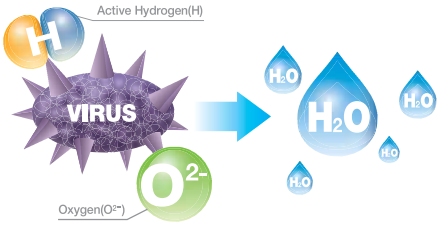
Floor Standing

Virus Doctor (11.2 and 14kW models)

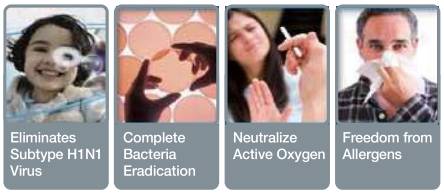
Our Virus Doctor eliminates airborne contaminants and creates even healthier air for your environments. This optional device can be easily installed by simply installing the Virus Doctor kit into the indoor unit.

The Virus Doctor device generates active hydrogen and oxygen ions which eliminate biological contaminants and active oxygen (OH-radical) in the air by turning them into harmless H_2O.

- Elimination of airborne virus and bacteria (subtype H1N1)
- Complete eradication of bacteria
- Relief of allergies by eradicating airborne allergens
- Neutralising of OH-radical (as known as active oxygen)



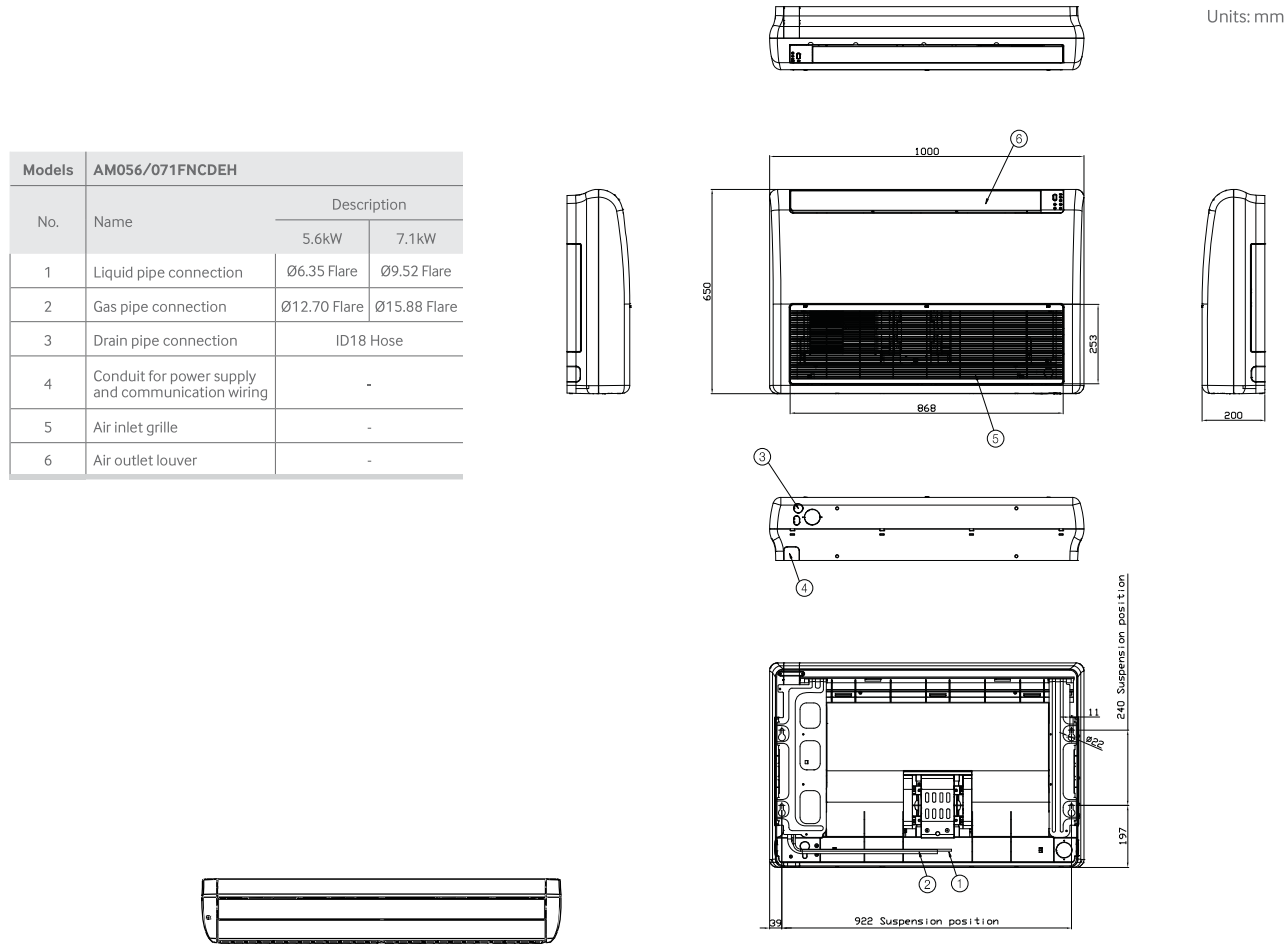
Virus and Active Hydrogen turns into harmless H_2O

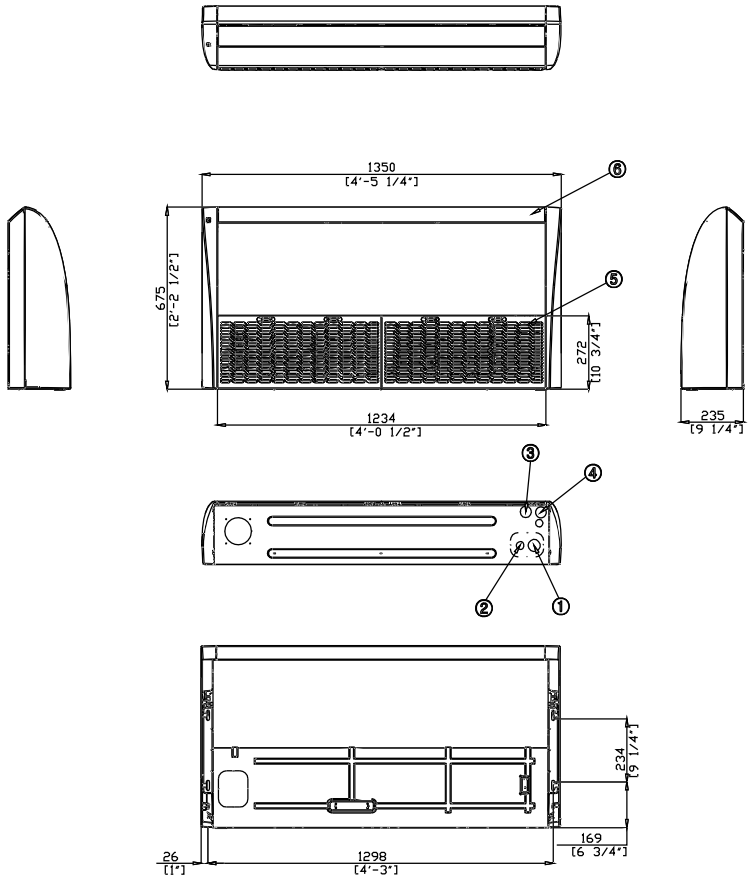


*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

Units: mm

Models	AM056/071FNCDEH		
No.	Name	Description	
		5.6kW	7.1kW
1	Liquid pipe connection	Ø6.35 Flare	Ø9.52 Flare
2	Gas pipe connection	Ø12.70 Flare	Ø15.88 Flare
3	Drain pipe connection	ID18 Hose	
4	Conduit for power supply and communication wiring	-	
5	Air inlet grille	-	
6	Air outlet louver	-	





Models	AM112/140JNCDKH
No.	Name
1	Refrigerant gas pipe
2	Refrigerant liquid pipe
3	Condensate drain
4	Conduits for power supply and communication wiring
5	Air inlet grille
6	Air outlet louver

Wall (Neo-Forte E) Specifications

Deodorising Filter

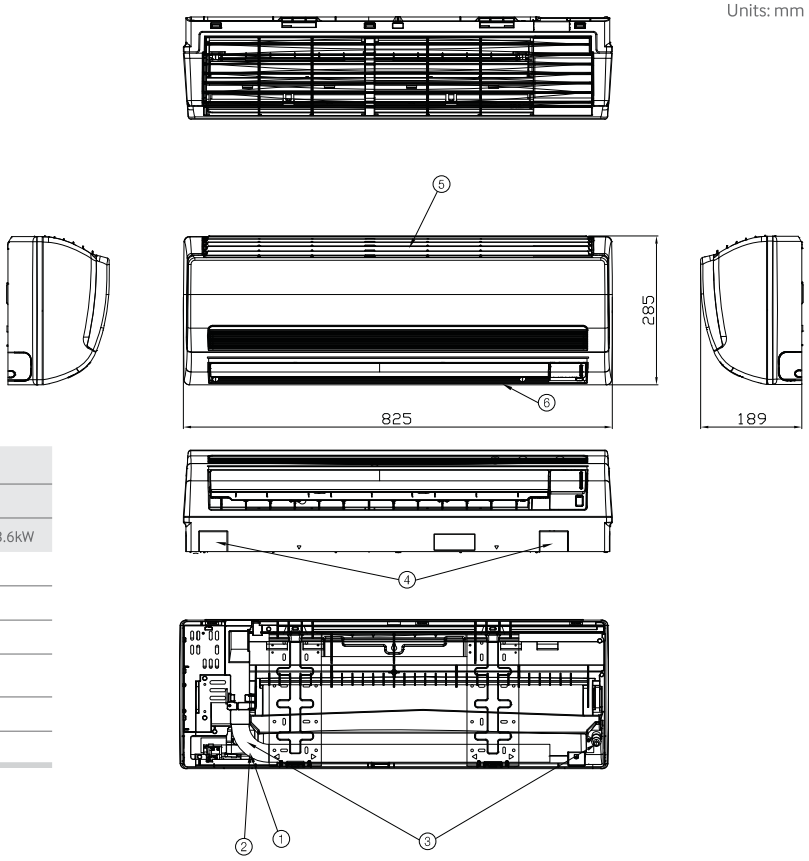
good'sleep

Model Name				AM015HNQDEH	AM022FNQDEH	AM028FNQDEH	AM036FNQDEH	AM045FNQDEH	AM056FNQDEH	AM071FNQDEH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	1.5	2.2	2.8	3.6	4.5	5.6	6.8
		Heating*3)		1.7	2.5	3.2	4.0	5.0	6.3	7.0
	Capacity (UK Conditions)	Cooling (Total)*5)		1.2	1.8	2.3	2.9	3.7	4.6	5.5
		Cooling (Sensible)*5)		1.0	1.5	1.8	2.2	2.7	3.4	4.1
		Heating*6)		1.4	2.4	2.7	3.3	4.4	5.3	5.9
Fan	Air Flow Rate	H/M/L (UL)	CMM	5.4 / 5.1 / 4.8	7.8 / 6.8 / 5.8		9.3 / 8.3 / 7.3	11.7 / 10.2 / 8.7	13 / 10.5 / 9	14 / 12.5 / 11
			l/s	90/ 85 / 80	130 / 113 / 96		155 / 138 / 121	195 / 170 / 145	216 / 175 / 150	233 / 208 / 183
Piping Connections	Liquid Pipe		Ø, inch	1/4						3/8
	Gas Pipe		Ø, inch	1/2						5/8
Fuse Rating				5A						
Sound	Sound Pressure	High/Mid/Low*4)	dBA	26 / 25 / 24	30 / 28 / 26		37 / 33 / 29	39 / 37 / 35	41 / 38 / 35	44 / 40 / 35
Dimensions	Net Weight		kg	8.3				13.5		
	Net Dimensions (WxHxD)		mm	825 x 285 x 189				1,065 x 298 x 218		
Additional Accessories	Drain Pump	Drain Pump	-/Model	-						
		Max. Lifting Height / Displacement	mm/litre/h	-						
	Air Filter		-	Long life filter						

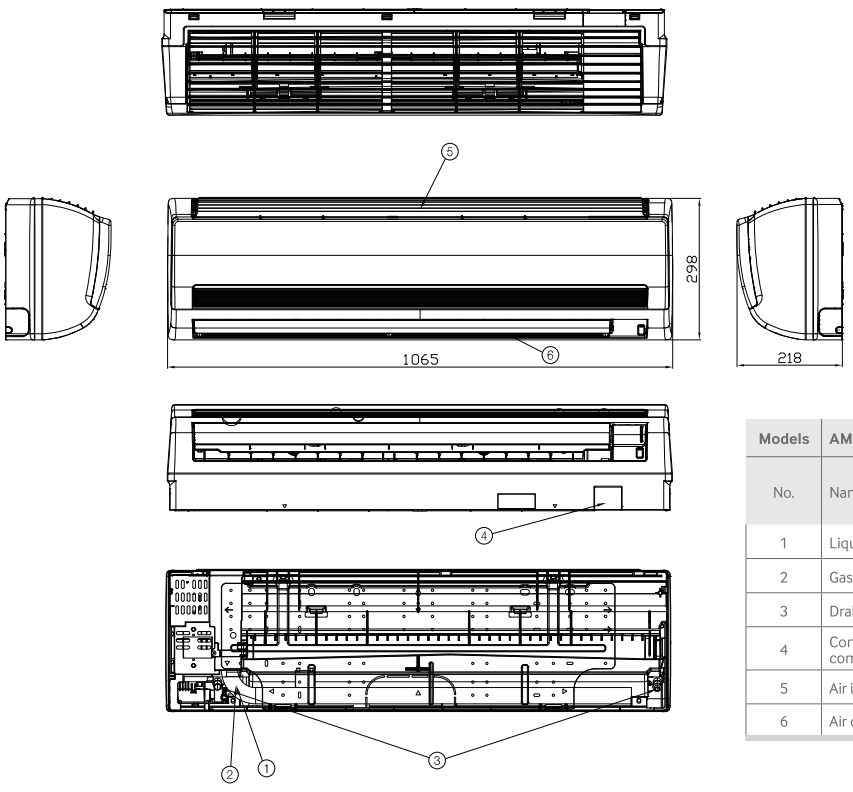
These products contain Fluorinated greenhouse gas R410A (GWP=2088).

*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

Units: mm



Models	AM022/028/036FNQ			
No.	Name	Description		
		2.2kW	2.8kW	3.6kW
1	Liquid pipe connection	Ø6.35 Flare		
2	Gas pipe connection	Ø12.70 Flare		
3	Drain pipe connection	ID18 Hose		
4	Conduit for power supply and communication wiring	-		
5	Air inlet grille	-		
6	Air outlet louver	-		



Models	AM045/056/071FNQ			
No.	Name	Description		
		4.5kW	5.6kW	7.1kW
1	Liquid pipe connection	Ø6.35 Flare		Ø9.52Flare
2	Gas pipe connection	Ø12.70 Flare		Ø15.88 Flare
3	Drain pipe connection	ID18 Hose		
4	Conduit for power supply and communication wiring	-		
5	Air inlet grille	-		
6	Air outlet louver	-		

Wall (A3050-E) Specifications

DVM Pro | Deodorising Filter | good'sleep | Anti-Virus Filter | Virus Doctor

Model Name				AM015JNVDKH	AM022JNVDKH	AM028JNVDKH	AM036JNVDKH	AM045JNVDKH	AM056JNVDKH	AM071JNVDKH	AM082JNVDKH
Perfomance	Capacity (Nominal)	Cooling*2)	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	8.2
		Heating*3)		1.7	2.5	3.2	4.0	5.0	6.3	8.0	8.5
	Capacity (UK Conditions)	Cooling (Total)*5)		1.2	1.8	2.3	2.9	3.7	4.6	5.8	6.7
		Cooling (Sensible)*5)		1.0	1.5	1.8	2.2	2.7	3.4	4.3	5.0
		Heating*6)		1.6	2.4	2.7	3.3	4.2	5.3	6.7	7.2
Fan	Air Flow Rate	H/M/L (UL)	CMM	4.4/4.2/3.8	5.4/4.7/4.0	5.7/5/4.3	7.1/5.7/4.6	8.9/7.5/6.0	11.8/10.0/8.2	14.8/12.4/10.0	16.7/14.3/12.4
			l/s	73/70/63	90/78/67	95/83/72	118/95/77	148/125/100	197/167/137	247/207/167	279/238/207
Piping Connections	Liquid Pipe		Ø, inch	1/4						3/8	
	Gas Pipe		Ø, inch	1/2						5/8	
Fuse Rating				5A							
Sound	Sound Pressure	High/Mid/Low*4)	dBA	28/25/24	33/29/25	36/31/25	37/34/30	41/38/34	39/36/33	44/41/36	47/43/40
Dimensions	Net Weight		kg	7.9		8.0	9.6		14.5		
	Net Dimensions (WxHxD)		mm	750 x 249 x 246			826 x 261 x 261		1065 x 301 x 294		
Additional Accessories	Drain Pump	Drain Pump	-/Model	-							
		Max. Lifting Height / Displacement	mm/litre/h	-							
	Air Filter		-	Long life filter							
	Virus Doctor		-	Built in							

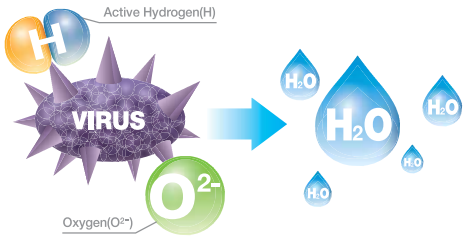
These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Virus Doctor

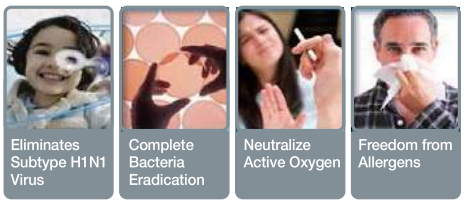
Our Virus Doctor eliminates airborne contaminants and creates even healthier air for your environments. This optional device can be easily installed by simply installing the Virus Doctor kit into the indoor unit.

The Virus Doctor device generates active hydrogen and oxygen ions which eliminate biological contaminants and active oxygen (OH-radical) in the air by turning them into harmless H_2O.

- Elimination of airborne virus and bacteria (subtype H1N1)
- Complete eradication of bacteria
- Relief of allergies by eradicating airborne allergens
- Neutralising of OH-radical (as known as active oxygen)



Virus and Active Hydrogen turns into harmless H_2O

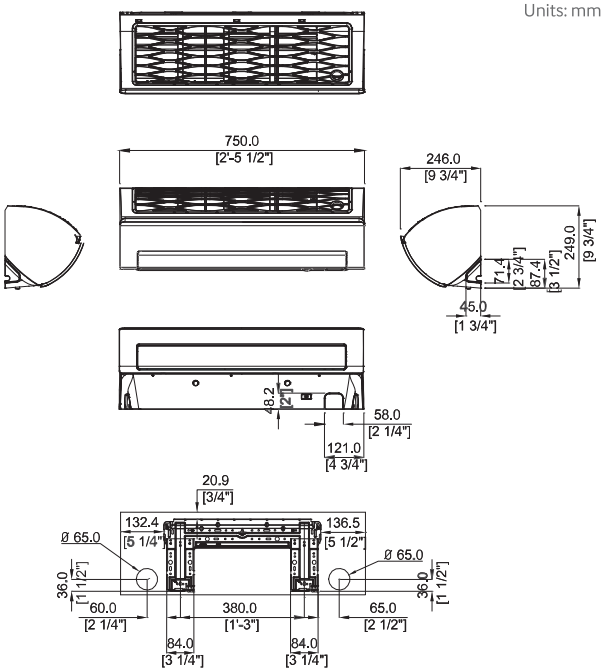


Cools faster, further and wider

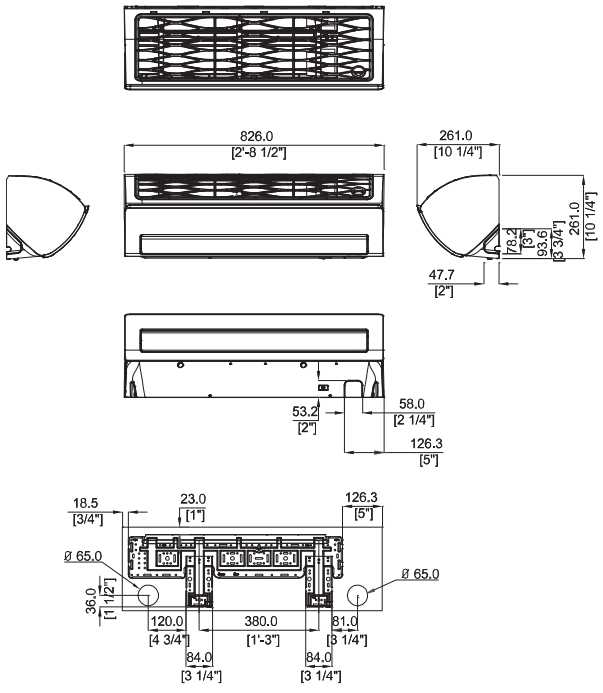
The Samsung Air Conditioner has been designed from the ground up to be outstandingy efficient. Its uniquely triangular design has a wider intake, so more air can be drawn in. The improved width and angle of its outlet, extra v-blades and a bigger fan also ensure that air is cooled and expelled faster and further. So refreshingly cool air reaches every corner of your room without blind spots.

Units: mm

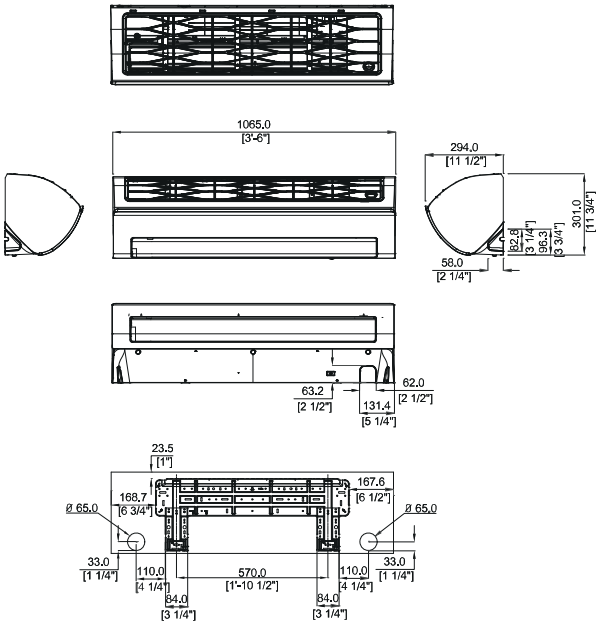
Models	AM015/022/028JNVDKH			
No.	Name	Description		
		1.5kW	2.2kW	2.8kW
1	Refrigerant gas pipe	Ø12.7 Flare		
2	Refrigerant liquid pipe	Ø6.35 Flare		
3	Drain pipe connection	ID18 Hose		



Models	AM036/045/028JNVDKH		
No.	Name	Description	
		3.6kW	4.5kW
1	Refrigerant gas pipe	Ø12.7 Flare	
2	Refrigerant liquid pipe	Ø6.35 Flare	
3	Drain pipe connection	ID18 Hose	



Models	AM056/071/082JNVDKH		
No.	Name	Description	
		5.6kW	7.1kW 8.2kW
1	Refrigerant gas pipe	Ø12.7 Flare	Ø15.88 Flare
2	Refrigerant liquid pipe	Ø6.35 Flare	Ø9.52 Flare
3	Drain pipe connection		ID 18 Hose



Floor (uncased) Specifications

Pre Filter

Model Name				AM036FNFDEH	AM056FNFDEH	AM071FNFDEH
Perfomance	Capacity (Nominal)	Cooling *2)	kW	3.6	5.6	7.1
		Heating *3)		4.0	6.3	8.0
	Capacity (UK Conditions)	Cooling (Total) *5)		3.3	4.9	5.9
		Cooling (Sensible) *5)		2.7	3.9	4.5
		Heating *6)		3.9	5.9	7.1
Fan	Air Flow Rate	H/M/L (UL)	CMM	10.00 / 8.50 / 6.00	15.50 / 14.00 / 11.00	
			l/s	166 / 141 / 100	258 / 233 / 183	
Fan	Liquid Pipe		Ø, inch	1/4	3/8	
	Gas pipe			1/2	5/8	
Static Pressure			Pa	20	20	
Fuse Rating				5A		
Sound	Sound Pressure	High/Mid/ Low *4)	dBA	37 / 32 / 27	40 / 36 / 32	
Dimensions	Net Weight		kg	23.0	28.5	
	Net Dimensions (WxHxD)		mm	945 x 600 x 220	1225 x 600 x 220	
Additional Accessories	Air Filter		-	Long life filter		

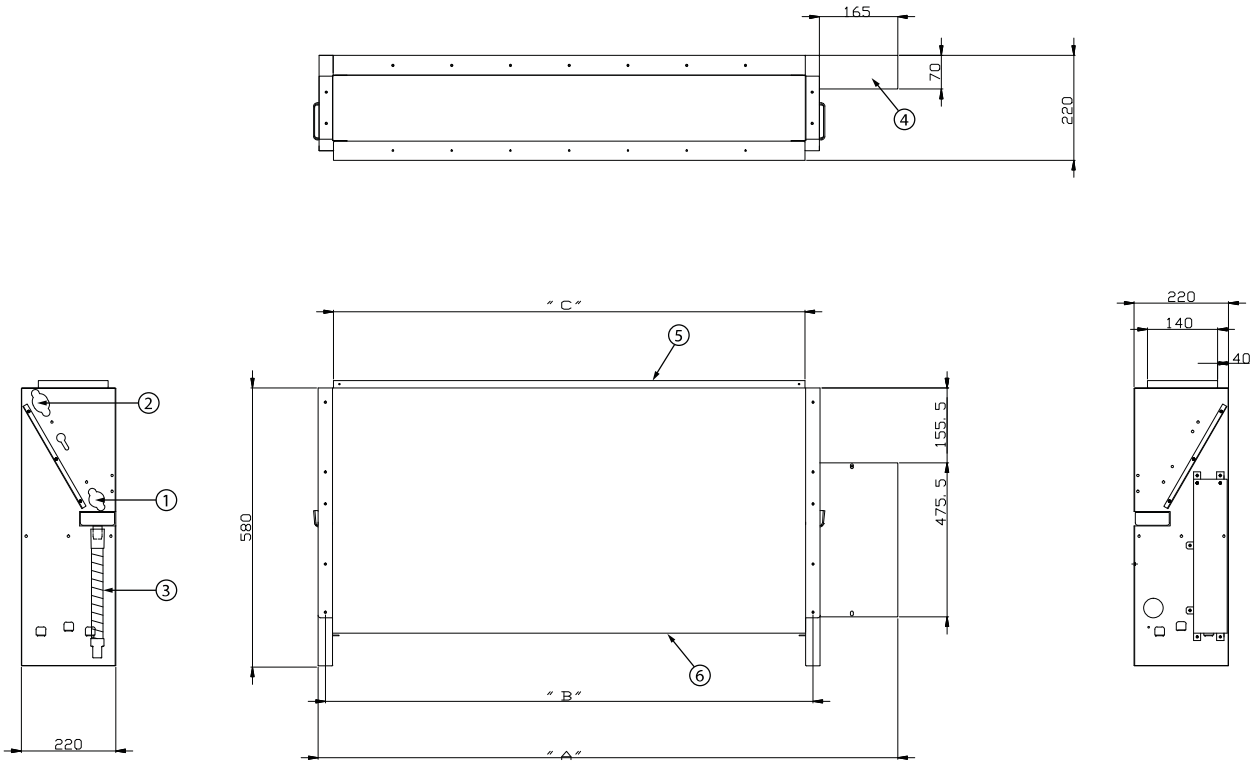
These products contain Fluorinated greenhouse gas R410A (GWP=2088).

The Concealed Floor Standing Unit offers the utmost in versatility in solving your cooling and heating needs. This effectively adjusts its performance to meet the needs of spaces with a high ceiling and many windows whilst maintaining the desired temperature.

*Specifications may be subject to change without prior notice for product improvement.
*1) Mode - HP : Heat Pump, HR : Heat Recovery.
*2) Nominal cooling capacities are based on; -Indoor temperature : 27°C DB, 19°C WB -Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*3) Nominal heating capacities are based on; -Indoor temperature : 20°C DB, 15°C WB -Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*4) Sound pressure was acquired in an anechoic room. Thus, actual noise level may be different depending on the installation conditions.
*5) UK cooling capacities are based on; -Indoor temperature : 23°C DB, 16°C WB -Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.
*6) UK heating capacities are based on; -Indoor temperature : 20°C DB, -Outdoor temperature : -3°C DB, -4°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m.

Floor (uncased) Dimensional Drawing

Units: mm



Model	A	B	C
AM036FNFDEH	945	730	700
AM056/071FNFDEH	1,225	1,010	980

No.	Name	Description		
		3.6kW	5.6kW	7.1kW
1	Liquid pipe connection	Ø6.35 Flare	Ø6.35 Flare	Ø9.52 Flare
2	Gas pipe connection	Ø12.70 Flare	Ø12.70 Flare	Ø15.88 Flare
3	Drain pipe connection	ID18 Hose		
4	Power wiring	-		
5	Air inlet grille	-		
6	Air outlet louver	-		

ERV Plus Specifications

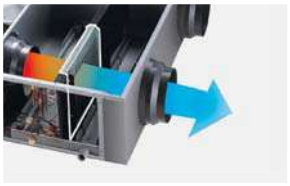
Note: Standalone ERV Air to Air Heat exchangers can be found on page 91.
*Refer to the following capacities when using the product with outdoor unit: AM050FNKDEH: 3.6kW, AM100FNKDEH: 7.1 kW

Model Name					AM050FNKDEH	AM100FNKDEH
Power Supply				Ø, ǂ, V, Hz	1, 2, 220~240, 50	
Performance	Temperature Exchange Efficiency	Cooling	Turbo	-	70	
			High	-	70	
			Low	-	74	
		Heating	Turbo	-	75	
			High	-	75	
			Low	-	79	
	Effective Enthalpy Exchange Efficiency	Cooling	Turbo	-	60	62
			High	-	60	62
			Low	-	66	68
		Heating	Turbo	-	73	75
			High	-	73	75
			Low	-	79	81
	Outside Air Processing Capacity		Cooling *1) (DX Coil/ Element)	-	5.1(3.6/1.5)	11.5(7.1/3.4)
			Heating *2) (DX Coil/ Element)	-	6.5(4.0/2.5)	13.2(8.0/5.2)
Fan	Air Flow Rate	Turbo/High/Low (UL)		CMH	500 / 500 / 360	1000 / 1000 / 690
				l/s	139 / 139/ 100	278 / 278 / 192
	External Static Pressure	Turbo/High/Low		mmAq	16.3 / 10.2 / 8.7	15.3 / 9.2 / 7.6
				Pa	160 / 100 / 85	150 / 90/ 75
Piping Connections	Liquid Pipe			Ø, inch	1/4	
	Gas Pipe				1/2	
Fuse Rating					5A	
Sound Pressure	Sound Level *3)	Turbo/Mid/Low		dBA	36 / 32 / 28	36 / 33 / 31
Dimensions	Net Weight			kg	61.0	90.0
	Net Dimensions (WxHxD)			mm	1,553 x 270 x 1,000	1,763 x 340 x 1,135
	Supply/Return/Exhaust/Outside Duct Flange (Ø)				200	250
Additional Accessories	Air Filter			-	High Efficiency Filter (PP) Natural Evaporating Type	
	CO_2 Sensor				MOS-C1	
	Virus Doctor				MSD-EAN1	
Ambient Condition	OA *4)			-	0~40°C DB, 80%RH or less	
	RA *4)			-	-15~40°C DB, 80%RH or less	

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Get Fresh Air without Temperature Loss

ERV Plus is equipped with a direct expansion coil to pre-condition the outdoor air that enters your indoor environment. Outdoor air will pass through the DX coil to produce fresh air without temperature loss.



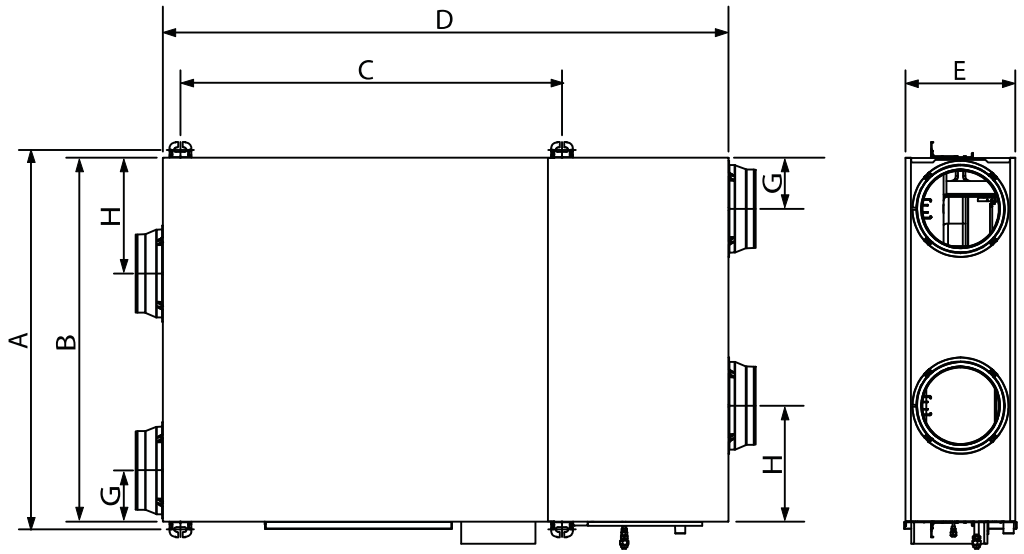
Smart CO_2 Sensor

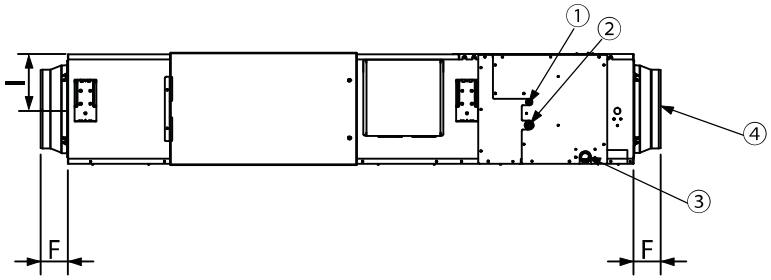
ERV automatically operates to give fresh air into the room by detecting CO_2 with the CO_2 sensor (optional).

*Specifications may be subject to change without prior notice for product improvement.
*1) Nominal cooling capacities are based on; - Indoor temperature : 27°C DB, 19°C WB - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
*2) Nominal heating capacities are based on;,- Indoor temperature : 20°C DB, 15°C WB ; - Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
*3) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.
*4) OA: fresh air from outdoor. RA: return air from room.

ERV Plus Dimensional Drawing

Units: mm





Model	A	B	C	D	E	F	G	H	I
RHF050KHEA	1036	1000	987	1553	270	99	130	253	135
RHF100KHEA	1183	1135	1189	1763	340	84	160	362	170

No.	Name		Description	
			500CMH	1000CMH
1	Liquid pipe connection		Ø6.35 Flare	
2	Gas pipe connection		Ø12.70 Flare	
3	Drain pipe connection		VP25 (OD32, ID25)	
4	Nominal diameter for duct	AM050FNKDEH	Ø200	
		AM100FNKDEH	Ø250	

Hydro Unit Specifications

50°C or 80°C Hot Water Supply

Model Name				AM160FNBDEH	AM320FNBDEH	AM500FNBDEH	AM160FNBFEB	AM250FNBFEB
Type				HE (50°C)	HE (50°C)	HE (50°C)	HT (80°C)	HT (80°C)
Performance	Nominal Capacity	Heating *1)	kW	16.0	31.5	50.4	16.0	25.0
		Cooling *2)		14.0	28.0	44.8	-	
	Required Flow Rate (Min~Max)		LPM	48	92	150	23	36
	Flow Switch			20	30	50	12	12
	Piping Connections	In/Out	Ø,.inch	1		11/4	1	1
Refrigerant Side	Piping Connections	Liquid	Ø,.inch	3/8		1/2	3/8	
		Gas		5/8	7/8	1.1/8	5/8	
Sound	Sound Pressure *3)	Heating	dB(A)	26.	27.	30.	42.	
		Cooling		27.	28.	31.	-	
External. Dimension	Weight	Net	kg	29	33	40	104	
	Dimensions. (WxHxD)	Net	mm	518 x 627 x 330			518 x 1,210 x 330	
Compressor	Refrigerant	Type	-	-			R-134a	R-134a
		Factory Charging	kg	-			2.15 (3.07 tCO2e)	2.15 (3.07 tCO2e)
Electric Specification	MCA		A	2.2			24.15	32.15
	Fuse Rating			5			30	40
Operating Range	Leaving Water	Heating	°C	20~50			25~80	
		Cooling		5~30			-	

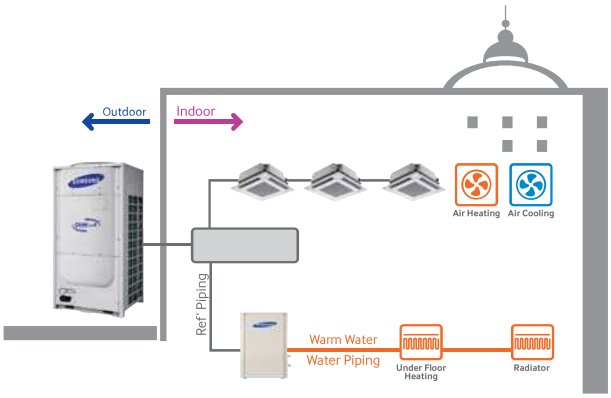
These products contain Fluorinated greenhouse gas R410A (GWP=2088) – Hydro HT R134a (GWP=1430).

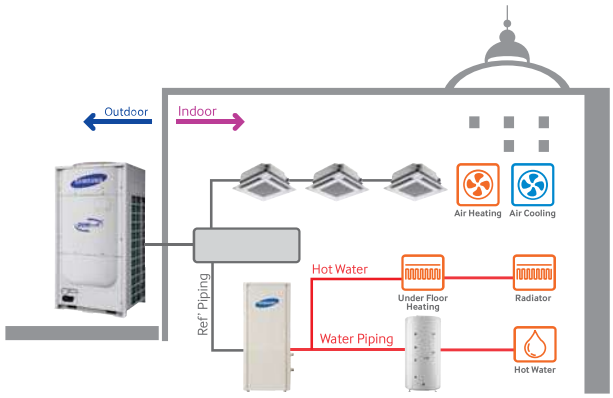
DVM Hydro Unit HE (High Efficiency) – hot water up to 50°C

- Heat pump and Heat recovery (simultaneous cooling and heating) system
- Air-to-water heating and cooling
- Consist of DVM outdoor units and hydro unit
- Cassette-type indoor units are compatible for air-to-air solution
- Compatible with under floor heating and fan coil units
- Water temperature up to 50°C
- Integrated control system

DVM Hydro Unit HT (High Temperature) – hot water up to 80°C

- Heat pump and Heat recovery (simultaneous cooling and heating) system
- Air-to-water heating
- Consist of DVM outdoor units, hydro unit and DHW tank
- Cassette type indoor units are compatible for air-to-air solution
- Compatible with under floor heating and fan coil units
- Water temperature up to 80°C
- Integrated control system



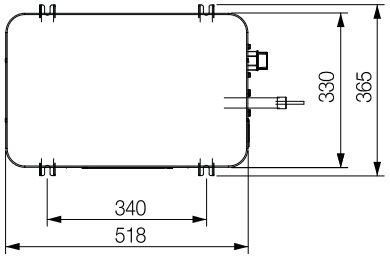


*Specifications may be subject to change without prior notice for product improvement.
*1) Nominal heating capacities are based on; - Water inlet/outlet temperature : 30°C / 35°C; - Outdoor temperature : 7°C DB, 6°C WB
*2) Nominal cooling capacities are based on; - Water inlet/outlet temperature : 23°C / 18°C; - Outdoor temperature : 35°C DB
*3) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

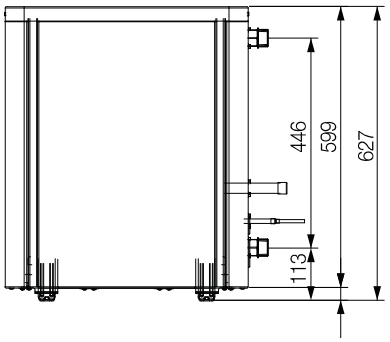
Hydro Unit

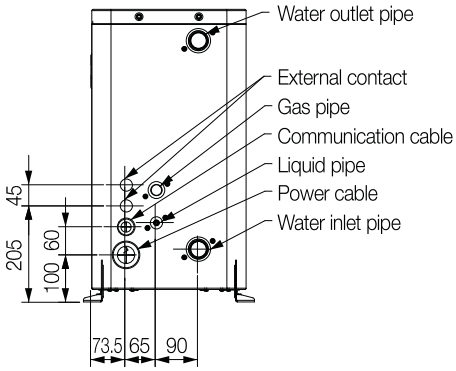
Dimensional Drawing | AM160/320/500FNBDEH, AM160/250FBNF*B

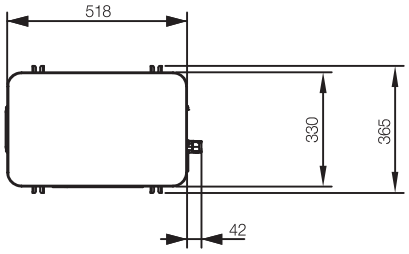
Units: mm

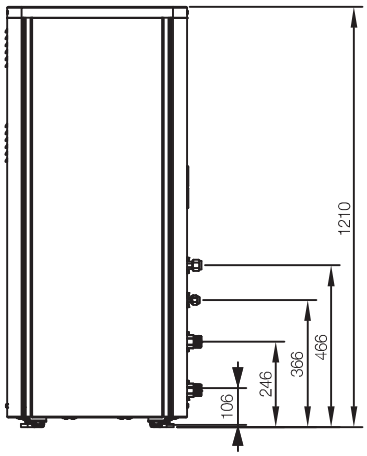


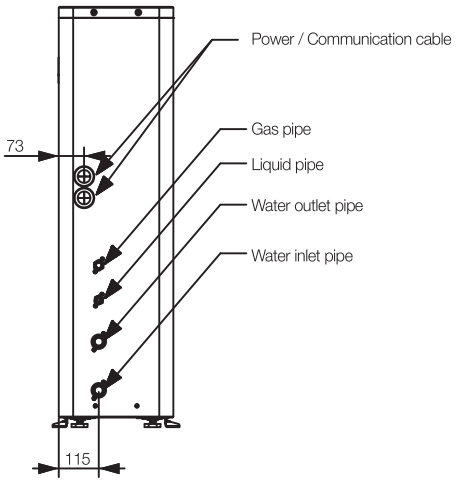
Model		AM160FNBDEH	AM320FNBDEH	AM500FNBDEH
Refrigerant side	Liquid pipe	3/8" (ø9.52)		1/2" (ø12.7)
	Gas pipe	5/8" (ø15.88)	7/8" (ø22.23)	1-1/8" (ø28.58)
Water side	Water inlet/outlet pipe	PT 1 (25 A)		PT 1-1/4 (32 A)

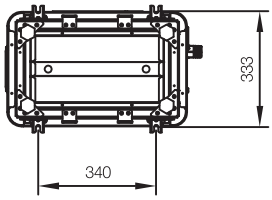










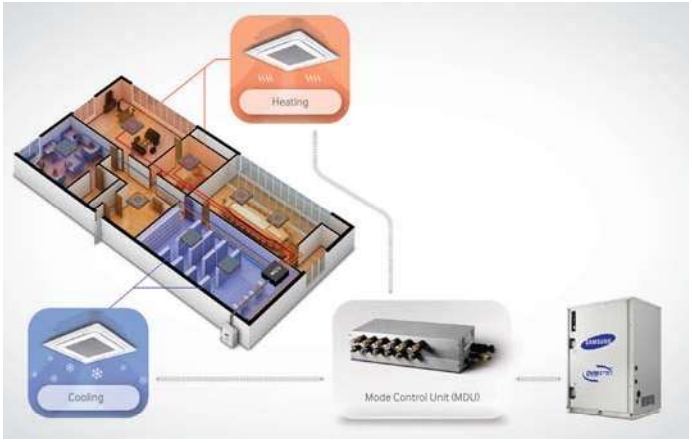


Model		AM160/250FBNF*B
Refrigerant side	Liquid pipe	3/8" (ø9.52)
	Gas pipe	5/8" (ø15.88)
Water side	Water inlet/outlet pipe	PT 1 (25 A)

Mode Control Unit (MCU)

Simultaneous Cooling and Heating

Indoor units connected to a 3-pipe Heat Recovery outdoor unit can independently heat and cool utilising a Mode Control Unit (MCU). MCUs are available in 4 or 6-port configurations and can be piped together, allowing up to 80 indoor unit connections to a single DVM S system (where specifications allow).



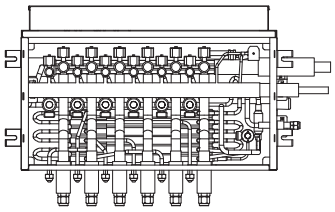
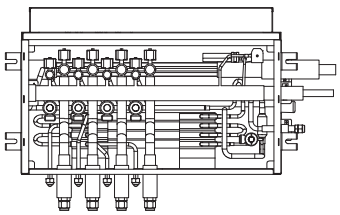
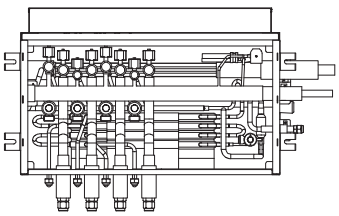
MCU indoor/outdoor unit compatible table

Before installing MCU, refer to the compatible table below and find the model before installation.

Each MCU requires a 220–240V 1-phase power supply and a drain connection.

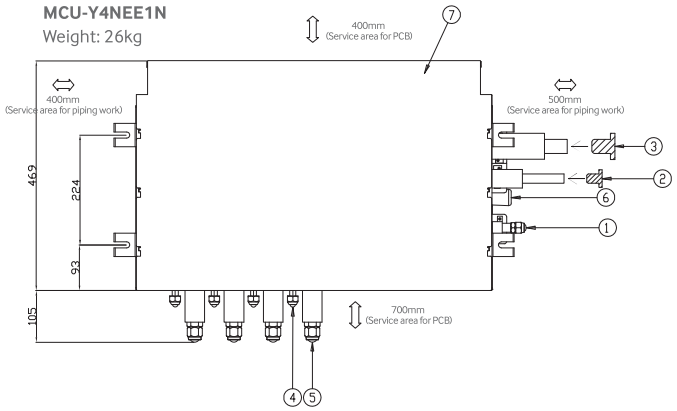
	Model	Description
MCU Kit	MCU-S6NEE1N	Below 6 indoor units, below 56 kW (192MBH)
	MCU-S4NEE1N	Below 4 indoor units, below 56 kW (192MBH)
	MCU-S4NEE2N	Below 2 large capacity indoor unit, below 56 kW (192MBH)

MCU Specification and Installation

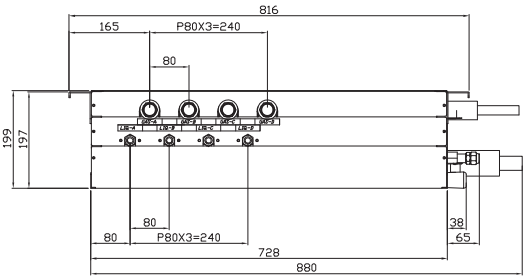
Model Name	MCU-S6NEE1N	MCU-S4NEE1N	MCU-S4NEE2N
Exterior of MCU			
Number of connectable indoor units	Up to 6 units	Up to 4 units	Up to 2 units. *Refer to the detailed information of installation
Maximum capacity of connectable indoor units	56 kW		
Installation	Only units ≤14kW cooling can be connected to these MCUs Only units <10kW cooling can be directly connected to one port (liquid and gas pipe) Units with capacity 11.2kW to 14kW must utilise two connection ports via Y-branch connector		Only units ≥11.2kW can be connected to these MCUs Single units with capacity 11.2kW to 28kW must utilise two connection ports via Y-branch connector

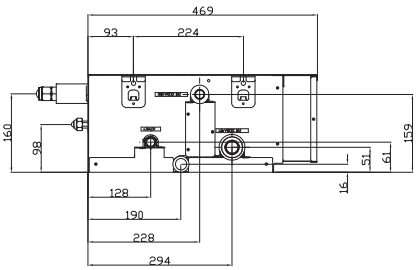
Units: mm

MCU-Y4NEE1N
Weight: 26kg

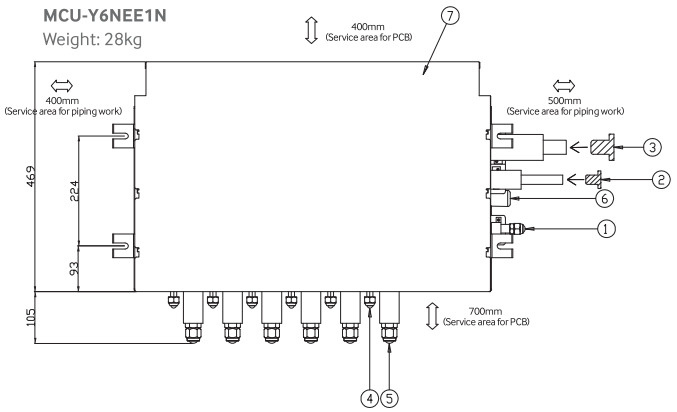


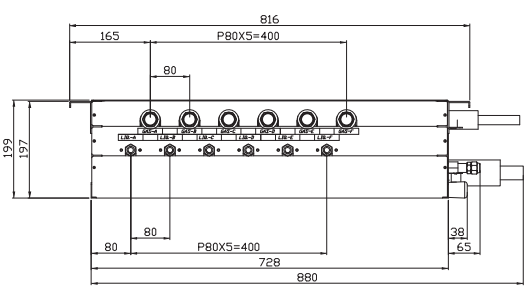
Models	MCU-Y4NEE1N/MCU-Y6NEE1N
No.	Description
1	Liquid pipe connection from outdoor unit (Flare)
2	High pressure gas pipe connection from outdoor unit (Brazing)
3	Gas pipe connection from outdoor unit (Flange)
4	Liquid pipe connection to indoor units
5	Gas pipe connection to indoor units
6	Condensate drain pipe connection
7	Power and communication wiring conduits

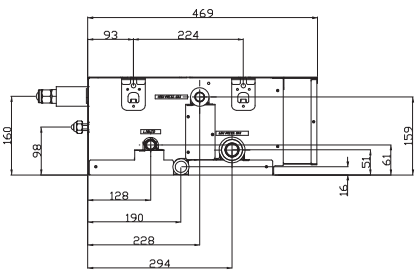




MCU-Y6NEE1N
Weight: 28kg







Outdoor Units Line-up

Outdoor Units	DVM S 60. Heat Recovery 66. Heat Pump 64. Heat Pump Std 2-pipe Heat Pump (HP) or 3-pipe Heat Recovery (HR)	Model	Capacity		Single								Module					
				HP	8	10	12	14	16	18	20	22	24	26	28	30	32	
				Cooling	22.4kW	28.0kW	33.6kW	40.0kW	45.0kW	50.4kW	56.0kW	61.6kW	67.2kW	73.6kW	78.6kW	84.0kW	89.6kW	
				Max. kW Capacity	29.12	36.4	43.7	52.0	58.5	65.52	72.8	80.08	87.4	95.7	102.2	109.2	116.5	
				Max. no. Indoors	14	18	21	26	29	32	36	40	43	47	51	54	58	
		AM080JXVHGH/GR	8 HP		1													
		AM100JXVHGH/GR	10 HP			1												
		AM120JXVHGH/GR	12 HP				1						2	1	1	1	1	
		AM140KXVGGH/ AM140JXVHGR	14 HP					1						1				
		AM160KXVGGH/ AM160JXVHGR	16 HP						1						1			
		AM180KXVGGH/ AM180JXVHGR	18 HP							1						1		
		AM200KXVGGH/ AM200JXVHGR	20 HP								1						1	
		AM220KXVGGH/ AM220JXVHGR	22 HP									1						
		AM240KXVGGH	24 HP										1					
		AM260KXVGGH	26 HP											1				
		AM280KXVGGH	28HP												1			
		AM300KXVGGH	30HP													1		

Outdoor Units	71. DVM S Water	Phase		Capacity			
			HP	8	10	12	20
			Cooling	22.4kW	22.0kW	33.6kW	56.0kW
			Max. kW Capacity	29.12	36.4	43.7	72.8
			Max. no. Indoors	14	18	21	36
		3 Phase		AM080FXWANR	AM100FXWANR	AM120FXWANR	
		3 Phase					AM200FXWANR

Outdoor Units	74. DVM S Eco	Phase		Capacity						
			HP	4	5	6	8	10	12	14
			Cooling	11.2kW	14.0kW	15.5kW	22.4kW	28kW	33.5kW	40kW
			Max. kW Capacity	14.5	18.2	20.2	29.12	36.4kW	43.6kW	52kW
			Max. no. Indoors	6	8	9	17	18	21	26
		1 Phase		AM040FMXDEH	AM050FMXDEH	AM060FMXDEH				
		3 Phase		AM040FMXDGH	AM050FMXDGH	AM060FMXDGH	AM080FMXDGH	AM100KXMDGH	AM120KXMDGH	AM140KXMDGH

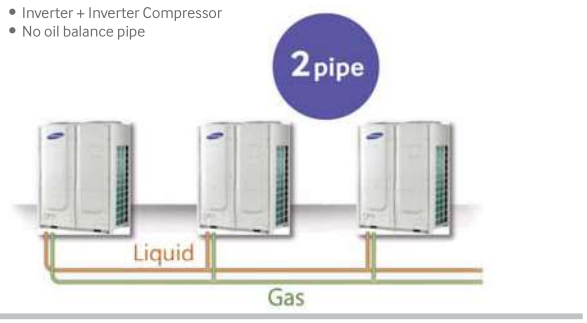
These products contain Fluorinated greenhouse gas R410A (GWP=2088).

	Module											Single										Module		
	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
	95.2kW	101.6kW	106.6kW	112.0kW	117.6kW	123.2kW	128.8kW	135.2kW	140.2kW	145.6kW	151.2kW	156.8kW	163.2kW	168.2kW	173.6kW	179.2kW	184.8kW	190.4kW	196.8kW	201.8kW	207.2kW	212.8kW	218.4kW	224.8kW
	123.8	132.1	138.6	145.6	152.9	160.2	167.4	175.8	182.3	189.3	196.6	203.8	212.3	218.7	225.7	233	240.2	247.5	255.8	262.3	269.4	276.6	283.9	292.2
	61	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
	1						2	1	1	1	1	1						2	1	1	1	1	1	
		1						1					1						1					1
			1						1					1						1				
										1											1			
				2	1						1				2	1						1		
	1	1	1		1	2	1	1	1	1	1	2	2	2	1	2	3	2	2	2	2	2	3	3

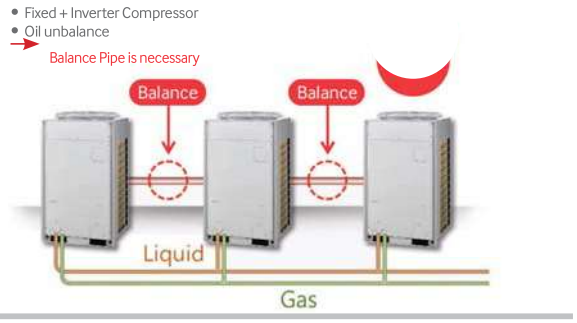
*Please check Eurovent website to confirm exact model certification.

Auto Oil Balancing

Samsung DVM S ensures stable and equal oil balancing without requiring an extra oil balancing pipe.



DVM S

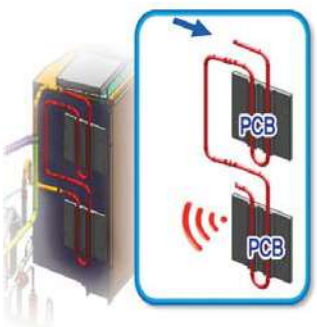


Conventional

PCB Refrigerant Cooling System

By utilising a small amount of refrigerant to cool the PCBs, DVM S ensures better stability than conventional air cooling.

DVM S
Refrigerant Cooling Method



Conventional
Air Cooling Method

DVM S Heat Recovery High Efficiency

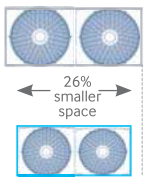
Specifications

Model Name				AM080JXVHGR	AM100JXVHGR	AM120JXVHGR	AM140JXVHGR
Power Supply			Φ, #, V, Hz	3,4,380-415,50			
Mode			-	HEAT RECOVERY			
Performance	HP		HP	8.00	10.00	12.00	14.00
	Capacity (Nominal)	Cooling	kW	22.40	28.00	33.60	40.00
		Heating		25.20	31.50	37.80	45.00
	ESEER			8.00	7.43	7.23	7.12
	EER			4.88	4.50	4.44	3.79
	COP			5.49	5.35	5.00	4.63
Power	Power Input (Nominal)	Cooling [1]	kW	4.59	6.22	7.57	10.55
		Heating [2]		4.59	5.89	4.56	9.72
	Max. Current		A	22.5	29.9	31.3	
	Fuse Rating			30	40		
Fan	Air Flow Rate		CMM	170		220	255
			l/s	2833		3667	4250
	External Static Pressure	Max.	mmAq	8.00			
			Pa	78.45			
Piping Connections	Liquid Pipe		Φ, inch	3/8		1/2	
	Gas Pipe			3/4	7/8	1 1/8	
	Discharge Gas Pipe			5/8	3/4		7/8
	Installation Limitation	Max. Length	m	200 (220)			
		Max. Height		110 (40)			
Refrigerant	R410A (GWP=2088)		(tCO2e)	13.57			16.08
	Factory Charging		kg	6.5	6.5	6.5	7.7
Sound [3]	Sound Pressure		dB(A)	57	58	62	61
	Sound Power			77	79	81	
External Dimension	Net Weight		kg	206			241
	Net Dimensions (WxHxD)		mm	880 x 1,695 x 765			1,295 x 1,695 x 765
Operating Temp. Range	Cooling		°C	-15 ~ 48			
	Heating			-25.0 ~ 24.0			

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Small Footprint and Lighter Weight

Large unit capacity (22HP) facilitates the economical installation with a smaller footprint and lighter weight, making it the perfect fit for larger buildings.



Conventional (22HP)
Weight: 447kg
Space demand: .35m^2

DVM S
Weight: 300kg
Space demand: .99m^2

If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision simulating by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit
1) Nominal cooling capacities are based on; Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m
2) Nominal heating capacities are based on; Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m
3) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

	AM160JXVHGR	AM180JXVHGR	AM200JXVHGR	AM220JXVHGR
	3,4,380-415,50			
	HEAT RECOVERY			
	16.00	18.00	20.00	22.00
	45.00	50.40	56.00	61.60
	50	56.70	63.00	69.30
	6.82	6.71	6.66	6.32
	4.12	4.38	4.29	3.91
	4.69	4.88	4.81	4.37
	10.92	11.51	13.05	15.75
	10.75	11.62	13.1	15.86
	40.0	48.9	52.5	55.6
	40	50	75	
	255	290		
	4250	4833		
	8.00			
	78.45			
	1/2	5/8		
	1 1/8			
	7/8		1 1/8	
	200 (220)			
	110 (40)			
	16.08	17.54		
	7.7	8.4	8.40	
	62	63	64	65
	82	85	86	88
	284.0	306.0		
	1,295 x 1,695 x 765			
	-15 ~ 48			
	-25.0 ~ 24.0			

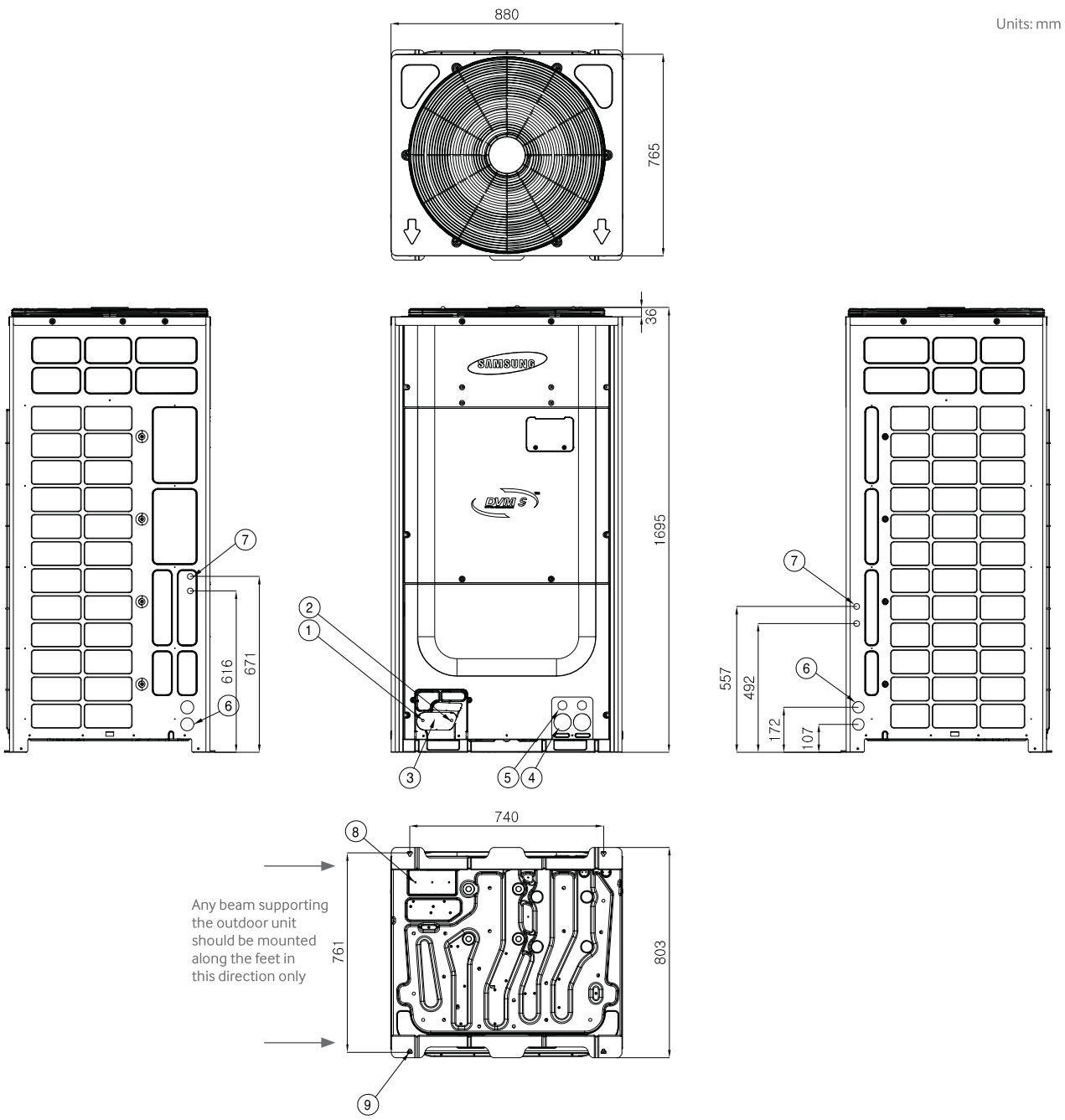
Versatile Piping Connection with Various Knock-Out Holes

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

DVM S Heat Recovery High Efficiency

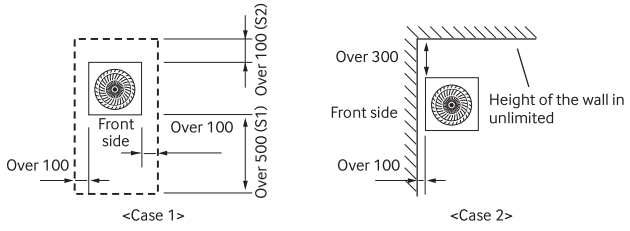
Dimensional Drawings | AM080/100/120JXVHGR

Units: mm

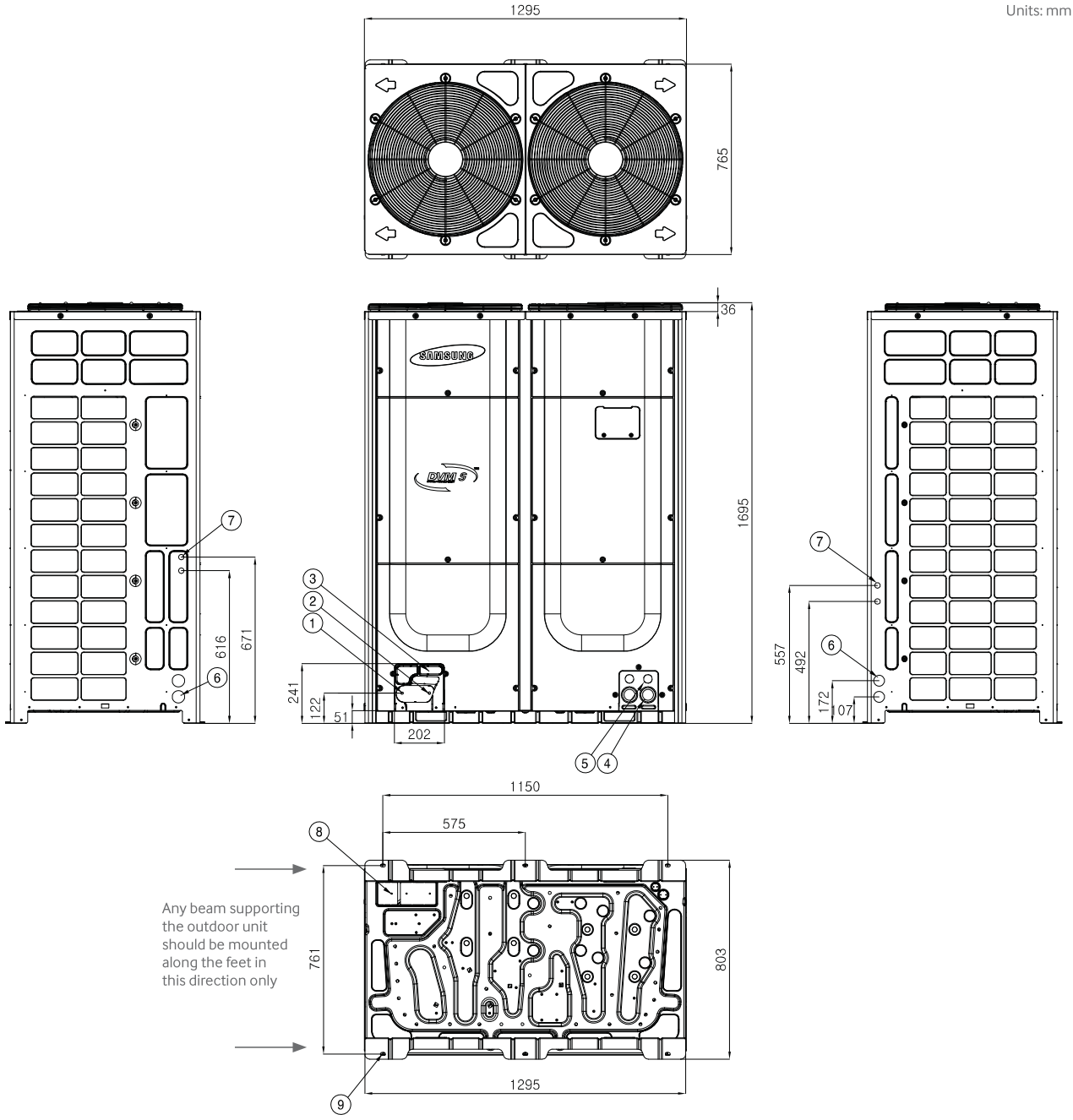


No.	Name	Description
1	Low pressure gas ref. pipe	-
2	High pressure gas ref. pipe	-
3	Liquid ref. pipe	-
4	Power wiring conduit	2 - Ø43.7
5	Communication wiring conduit	2 - Ø34.5
6	Power wiring conduit	4 - Ø43.7
7	Communication wiring conduit	8 - Ø22.0
8	Knock-out hole for ref. piping	178 x 76
9	Anchor bolt hole	4 - Ø12

Single Installation

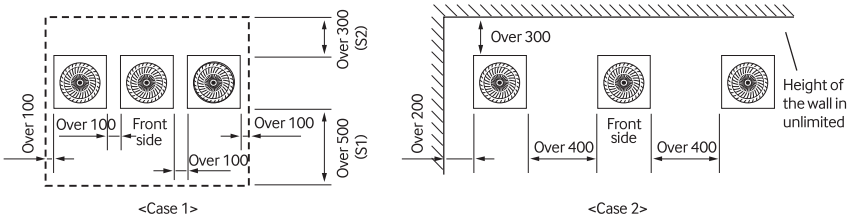


Units: mm



No.	Name	Description
1	Low pressure gas ref. pipe	-
2	High pressure gas ref. pipe	-
3	Liquid ref. pipe	-
4	Power wiring conduit	2 - Ø43.7
5	Communication wiring conduit	2 - Ø34.5
6	Power wiring conduit	4 - Ø43.7
7	Communication wiring conduit	8 - Ø22.0
8	Knock-out hole for ref. piping	178 x 76
9	Anchor bolt hole	4 - Ø12

Module Installation



DVM S Heat Pump Standard

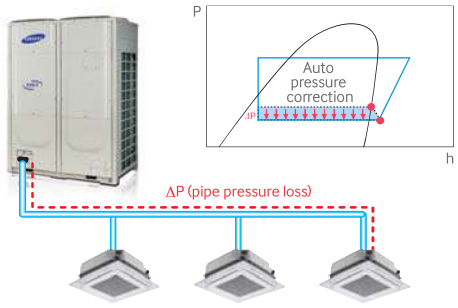
Specifications

Model Name				AM080JXVAGH	AM100JXVAGH	AM120JXVAGH	AM140KXVAGH	AM160KXVAGH
Power Supply			Φ, ǂ, V, Hz	3,4,380-415,50				
Mode			-	HEAT PUMP				
Performance	HP		HP	8.00	10.00	12.00	14.00	16.00
	Capacity (Nominal)	Cooling	kW	22.40	28.00	33.60	40.0	45.0
		Heating		25.20	31.50	37.80	45.0	50.4
	ESEER			7.85	7.25	7.03	7.02	6.81
	EER			4.48	4.09	4.12	3.66	3.72
	COP			4.94	4.74	4.71	4.43	4.34
Power	Power Input (Nominal)	Cooling [1]	kW	5.00	6.85	8.16	10.93	12.10
		Heating [2]		5.10	6.65	8.03	10.16	11.61
	Max. Current		A	22.5	29.9	31.3	25.0	32.0
	Fuse Rating			30		40	32	40
Fan	Air Flow Rate		CMM	170		220	255	
			l/s	2,833		3,667	4,250	
	External Static Pressure	Max.	mmAq	8.00				
			Pa	78.45				
Piping Connections	Liquid Pipe		Φ, inch	3/8		1/2		
	Gas Pipe			3/4	7/8	1 1/8		
	Installation Limitation	Max. Length	m	200 (220)				
		Max. Height		110 (40)				
Refrigerant	R410A (GWP=2088)		(tC02e)	11.48		13.57	16.08	17.54
	Factory Charging		kg	5.50		6.5	7.7	8.4
Sound [3]	Sound Pressure		dB(A)	57	58	62	61	63
	Sound Power			77	79	81	81	83
External Dimension	Net Weight		kg	186	197	210	253	253
	Net Dimensions (WxHxD)		mm	880 x 1,695 x 765			1295 x 1695 x 765	1295 x 1695 x 765
Operating Temp. Range	Cooling		°C	-5.0 ~ 48.0				
	Heating			-25.0 ~ 24.0				

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Optimised Refrigerant Distribution Control

Since piping distance can be considerable between outdoor and indoor units, the individual indoor units perform capacity connection control and automatic refrigerant balancing to secure balanced performance between the units.



If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision simulating by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on; Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

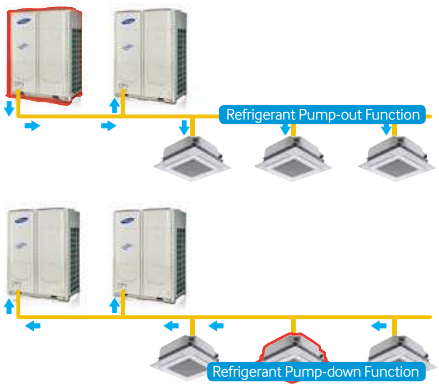
2) Nominal heating capacities are based on; Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m"

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

	AM180KXVAGH	AM200KXVAGH	AM240KXVAGH	AM240HXVAGH	AM260KXVAGH	AM280KXVAGH	AM300KXVAGH
	3,4,380-415,50						
	HEAT PUMP						
	18.00	20.00	22.00	24.00	26.00	28.00	30.00
	50.4	56.0	61.6	67.2	72.8	78.6	84.0
	56.7	63.0	69.3	75.6	81.9	88.2	94.5
	6.61	6.56	6.25	7.18	6.92	6.83	6.65
	4.00	3.95	3.55	4.20	3.85	3.80	3.70
	4.76	4.53	4.15	4.90	4.55	4.37	4.59
	12.60	14.18	17.35	16.00	18.91	20.68	22.70
	11.91	13.91	16.70	15.43	18.00	20.18	20.59
	39.2	42.0	44.6	55.0	60.0	67.0	73.0
	50	63			75		
	290			340			
	4833						
	8.00						
	78.45						
	5/8				3/4		
	1 1/8			1 3/8			
	200 (220)						
	110 (40)						
	17.54			29.23			
	8.4	8.4	8.4	14.0	14.0	14.0	
	64	65	65	66	69	69	
	84	87	89	89	90	90	
	255	277	285	333	342	350.0	
	1295 x 1695 x 765				1295 x 1795 x 765	1295 x 1795 x 765	
	-5.0 ~ 48.0						
	-25.0 ~ 24.0						

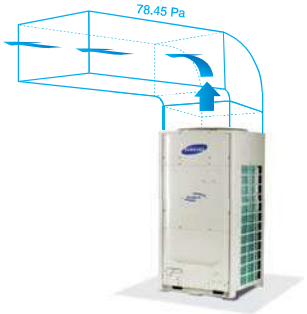
Refrigerant Pump-down and Pump-out

DVM S provides the refrigerant pump-down/ out functions to facilitate easy and convenient replacement of the product, as well as additional installations and maintenance. In case of outdoor unit maintenance, it is possible for the refrigerant to recover into indoor units and pipes. It is also possible to recover refrigerant into outdoor units when moving indoor units or performing maintenance on pipes.



High External Static Pressure

To properly deal with unexpected and varying installation conditions, DVM S is designed to manage high external static pressures up to 78.45 Pa.



DVM S Heat Pump High Efficiency

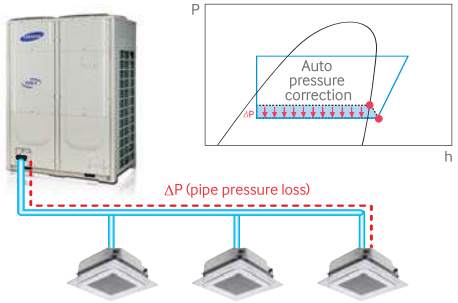
Specifications

Model Name				AM080JXVHGH	AM100JXVHGH	AM120JXVHGH	AM140KXVGGH	AM160KXVGGH
Power Supply			Φ, #, V, Hz	3,4,380-415,50				
Mode			-	HEAT PUMP				
Performance	HP		HP	8.00	10.00	12.00	14.00	16.00
	Capacity (Nominal)	Cooling	kW	22.40	28.00	33.60	40.00	45.00
		Heating		25.20	31.50	37.80	45.00	50.40
	ESEER			8.00	7.43	7.23	7.78	7.38
	EER			4.88	4.50	4.44	4.50	4.12
	COP			5.49	5.35	5.00	4.68	4.69
Power	Power Input (Nominal)	Cooling [1]	kW	4.59	6.22	7.57	8.89	10.92
		Heating [2]		4.59	5.89	4.56	15.40	17.20
	Max. Current		A	22.5	29.9	31.3	25.0	32.0
	Fuse Rating			25	32			40
Fan	Air Flow Rate		CMM	170		220	255	255
			l/s	2,833		3,667	4,250	4,250
	External Static Pressure	Max.	mmAq	8.00				
			Pa	78.45				
Piping Connections	Liquid Pipe		Φ, inch	3/8		1/2		
	Gas Pipe			3/4	7/8	1 1/8		
	Installation Limitation	Max. Length	m	200 (220)				
		Max. Height		110 (40)				
Refrigerant	R410A (GWP=2088)		(tCO2e)	13.57			19.63	17.54
	Factory Charging		kg	6.5	6.5	6.5	9.4	8.4
Sound [3]	Sound Pressure		dB(A)	57	58	62	61	63
	Sound Power			77	79	81		83
External Dimension	Net Weight		kg	206			241	255
	Net Dimensions (WxHxD)		mm	880 x 1,695 x 765			1295 x 1695 x 765	
Operating Temp. Range	Cooling		°C	-5.0 ~ 48.0				
	Heating			-25.0 ~ 24.0				

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Optimised Refrigerant Distribution Control

Since piping distance can be considerable between outdoor and indoor units, the individual indoor units perform capacity connection control and automatic refrigerant balancing to secure balanced performance between the units.



If outdoor unit is located in a higher position than indoor unit, level difference is 110m or under. (If the level difference is higher than 50m, make a decision simulating by PDM kit installation Guide software whether the PDM kit should be installed or not.) *PDM kit: Pressure Drop Modulation kit

1) Nominal cooling capacities are based on; Indoor temperature : 27°C DB, 19°C WB / Outdoor temperature : 35°C DB, Equivalent refrigerant piping : 7.5m , Level differences : 0m

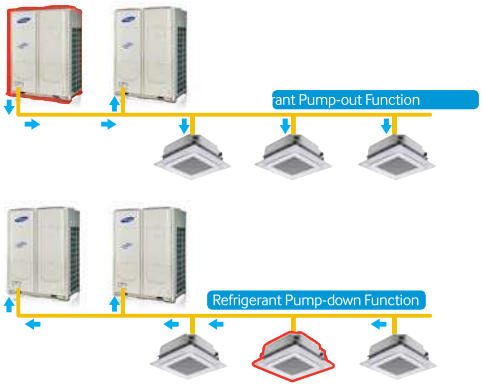
2) Nominal heating capacities are based on; Indoor temperature : 20°C DB, 15°C WB / Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m"

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

	AM180KXVGGH	AM200KXVGGH	AM220KXVGGH	AM240KXVGGH	AM260KXVGGH	AM280KXVGGH	AM300KXVAGH
	3,4,380-415,50						
	HEAT PUMP						
	18.00	20.00	22.00	24.00	26.00	28.00	30.00
	50.40	56.00	61.60	67.20	72.80	78.60	84.00
	56.70	63.00	69.30	75.60	81.90	88.20	94.50
	7.25	6.82	6.43	7.18	7.17	6.86	6.65
	4.72	4.48	3.91	4.20	4.20	4.00	3.70
	5.39	4.94	4.37	4.90	4.80	4.70	4.59
	10.68	12.50	15.75	16.00	17.33	19.65	22.70
	16.9	12.75	15.86	15.43	17.06	18.77	20.59
	39.2	42.0	44.6	55.0	60.0	67.0	73.0
	50	63	63	63	75		
	290			340			
	4,833						
	8.00						
	78.45						
	5/8				3/4		
	1 1/8			1 3/8			
	200 (220)						
	110 (40)						
	17.54			29.23			
	8.40			14.0			
	65	65	65	69	69	69	69
	89	89	89	90	90	90	90
	285			342	350	350	350
	1295 x 1695 x 765			1295 x 1795 x 765			
	-5.0 ~ 48.0						
	-25.0~ 24.0						

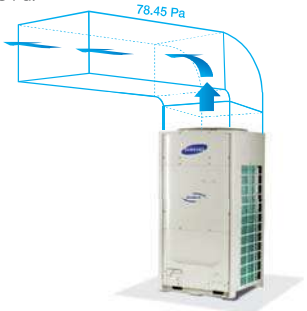
Refrigerant Pump-down and Pump-out

DVM S provides the refrigerant pump-down/out functions to facilitate easy and convenient replacement of the product, as well as additional installations and maintenance. In case of outdoor unit maintenance, it is possible for the refrigerant to recover into indoor units and pipes. It is also possible to recover refrigerant into outdoor units when moving indoor units or performing maintenance on pipes.



High External Static Pressure

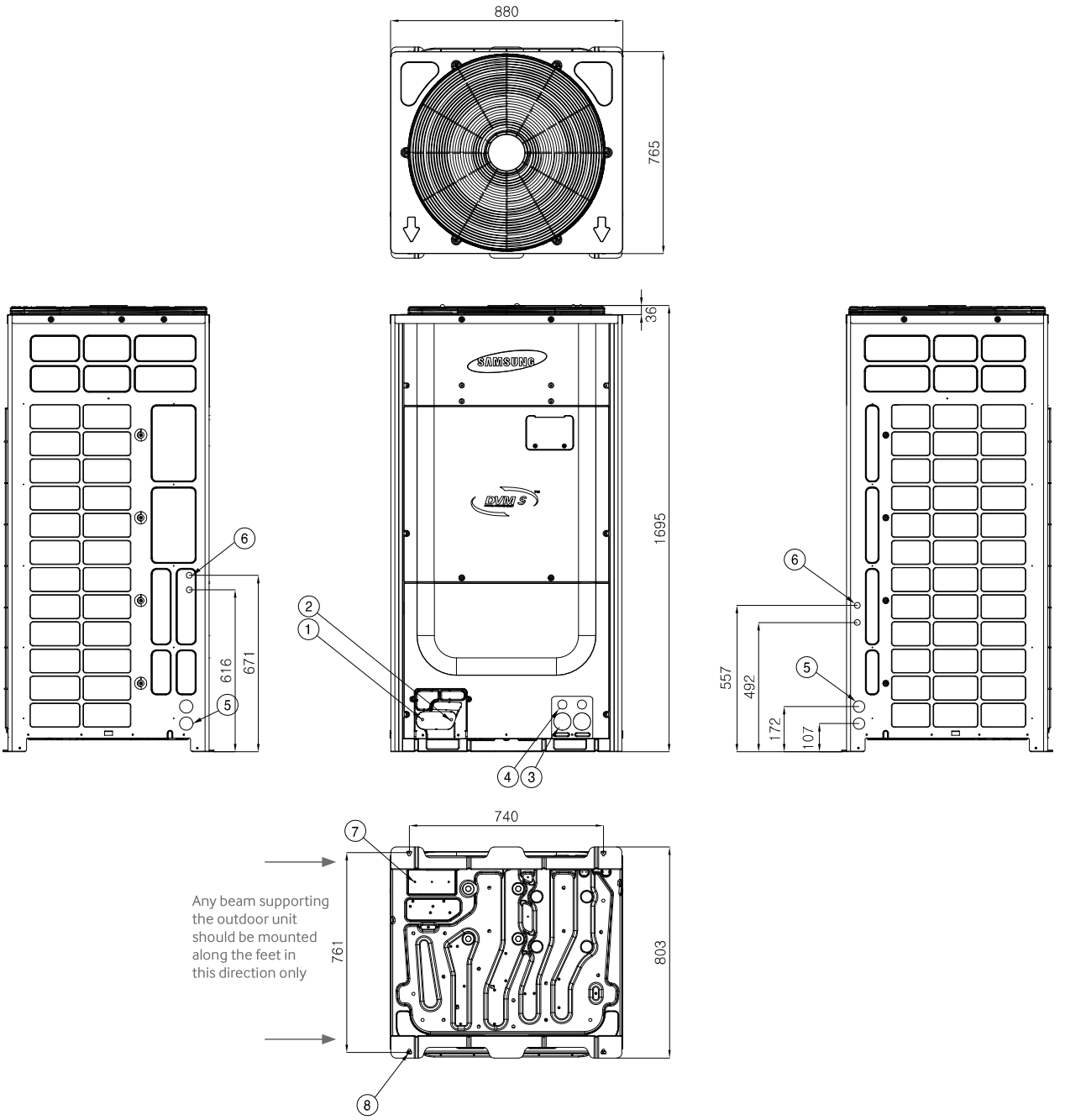
To properly deal with unexpected and varying installation conditions, DVM S is designed to manage high external static pressures up to 78.45 Pa.



DVM S Heat Pump High Efficiency

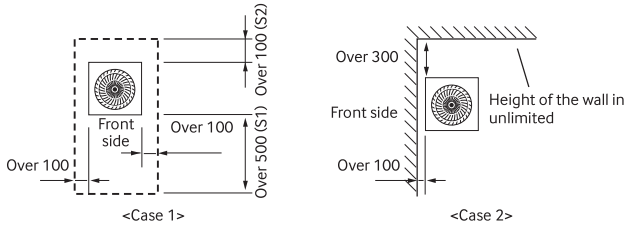
Dimensional Drawings | AM080/100/120JXVHGH

Units: mm

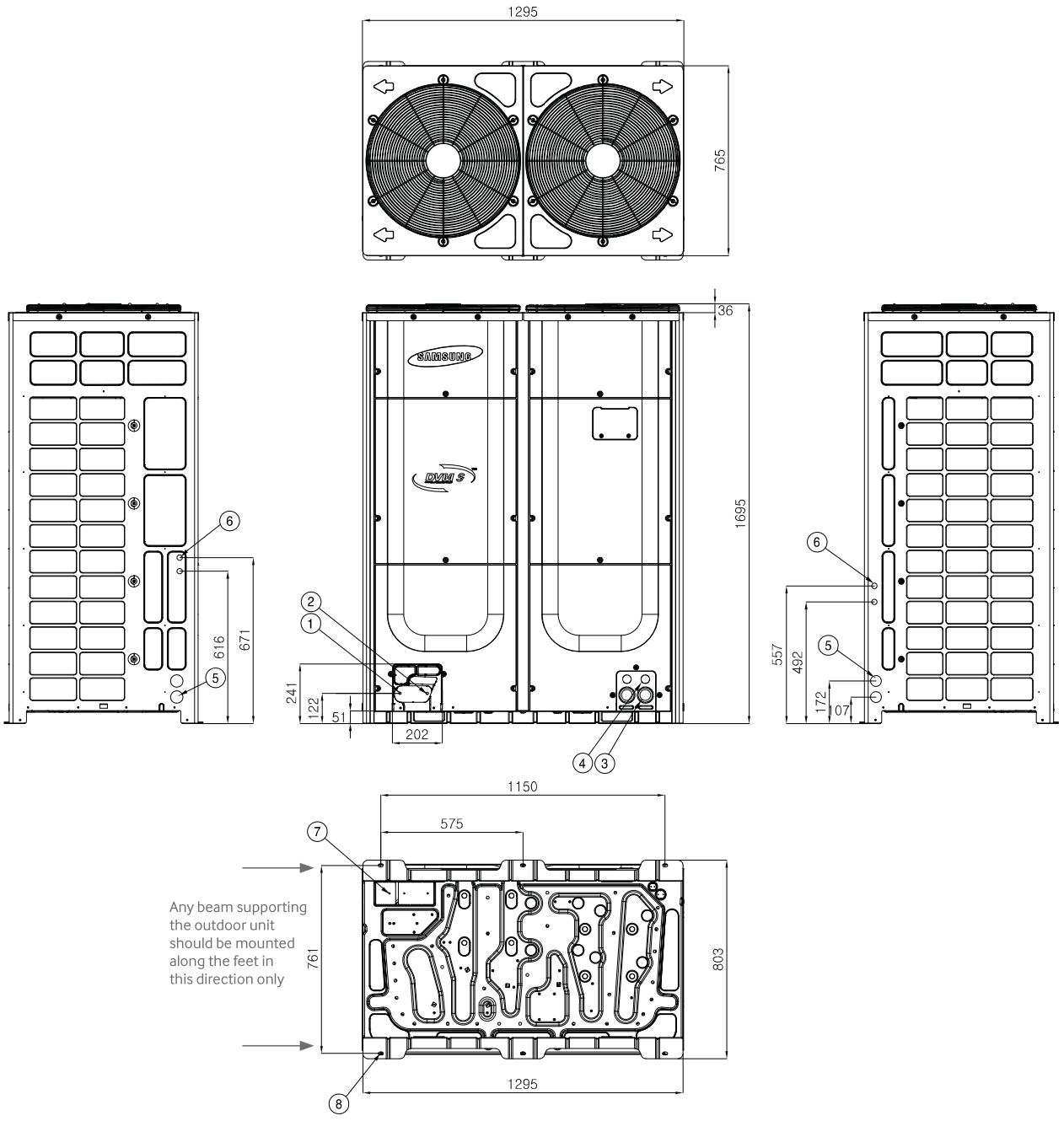


No.	Name	Description
1	Gas ref. pipe	-
2	Liquid ref. pipe	-
3	Power wiring conduit	2 - Ø43.7
4	Communication wiring conduit	2 - Ø34.5
5	Power wiring conduit	4 - Ø43.7
6	Communication wiring conduit	8 - Ø22.0
7	Knock-out hole for ref. piping	178 x 76
8	Anchor bolt hole	4 - Ø12

Single Installation

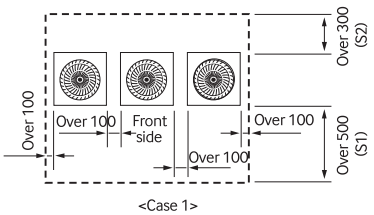


Units: mm

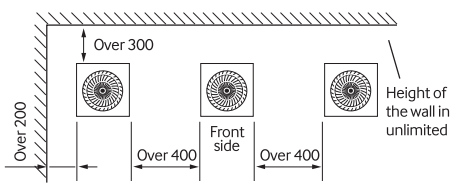


No.	Name	Description
1	Gas ref. pipe	-
2	Liquid ref. pipe	-
3	Power wiring conduit	2 - Ø43.7
4	Communication wiring conduit	2 - Ø34.5
5	Power wiring conduit	4 - Ø43.7
6	Communication wiring conduit	8 - Ø22.0
7	Knock-out hole for ref. piping	178 x 76
8	Anchor bolt hole	4 - Ø12

Module Installation



<Case 1>

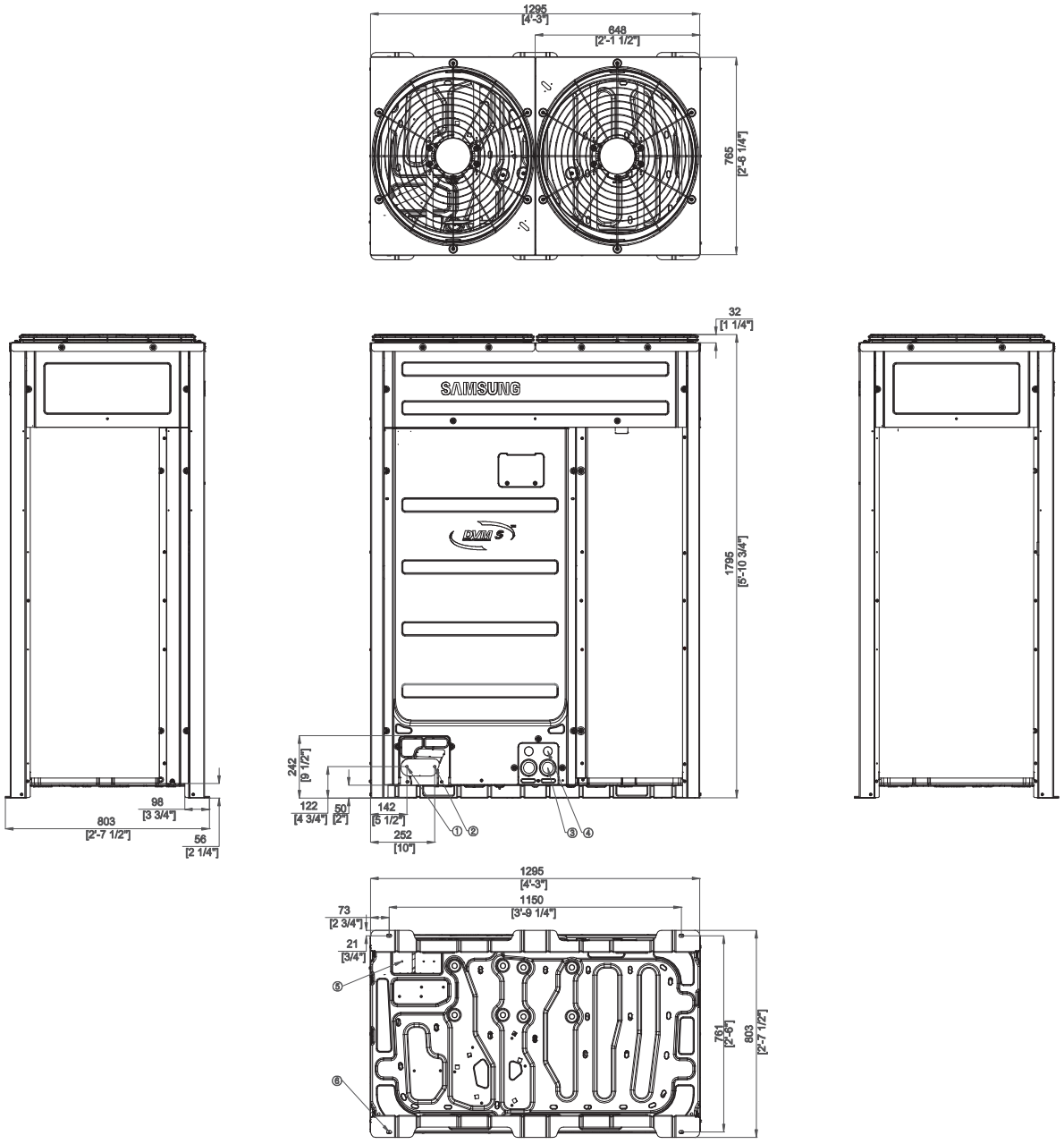


<Case 2>

DVM S Heat Pump High Efficiency

Dimensional Drawings | AM240/260/280/300KXVGGH

Units: mm/inches



DVM S Water Specifications

Model Name				AM080FXWANR	AM100FXWANR	AM120FXWANR	AM200FXWANR
Power Supply			Φ, ⌗, V, Hz	3,4,380-415,50/60			
Mode			-	HEAT PUMP AND HEAT RECOVERY			
Performance	HP		HP	8.00	10.00	12.00	20.00
	Capacity (Nominal)	Cooling	kW	22.40	28.00	33.60	56.00
		Heating		25.20	31.50	37.80	63.00
	EER			5.83	5.54	5.20	
	COP			6.12	6.00	5.81	5.80
Power	Power Input (Nominal)	Cooling [1]	kW	3.84	5.05	6.46	8.89
		Heating [2]		4.12	5.25	6.51	9.37
	Max. Current		A	16.30 (MCA)	20.00 (MCA)	25.00 (MCA)	36.30 (MCA)
	Fuse Rating			20		32	40
COP	Nominal Cooling [1]		-	5.83	5.54	5.20	5.67
	Nominal Heating [2]		-	6.12	6.00	5.81	6.05
Condenser	Type		-	PHE (Stainless Steel Plate)			
	Pipe Size		Φ, inch	PT 1-1/4			PT 1-1/4 x 2
	Lost Head		kPa	22.0	30.0	43.0	54.0
	Water Flow Rate		LPM	80.0	96.0	114.0	190.0
	Max. Pressure		Mpa	1.96			
Piping Connections	Liquid Pipe		Φ, inch	3/8		1/2	5/8
	Discharge Gas Pipe			5/8	3/4		1 1/8
	Gas Pipe			3/4	7/8	1 1/8	
	Installation Limitation	Max. Length	m	170 (190)			
		Max. Height		50.0 (40.0)			
Refrigerant	R410A (GWP=2088)		(tCO2e)	11.48	12.11	12.53	20.46
	Factory Charging		kg	5.50	5.80	6.00	9.80
Sound [3]	Sound Pressure		dB(A)	48.0		50.0	51.0
	Sound Power			70.0			73.0
External Dimension	Net Weight		kg	160.0			240.0
	Net Dimensions (WxHxD)		mm	770 x 1,000 x 545			1,100 x 1,000 x 545
Operating Temp. Range	Cooling		°C	10.0 ~ 45.0			
	Heating			10.0 ~ 45.0			

For combinations up to 60HP, please contact your local Samsung dealer. These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Saving Installation Space

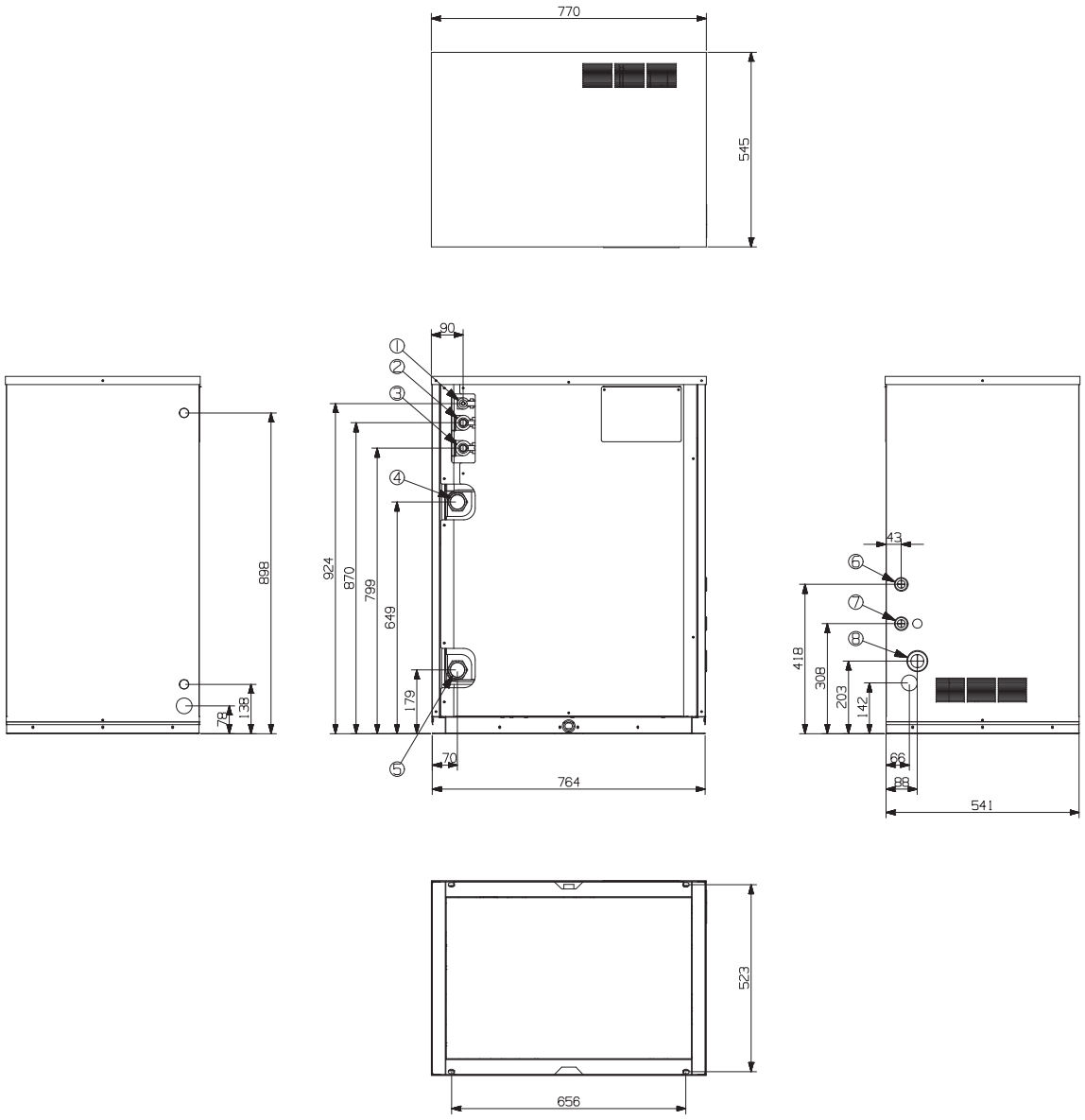
DVM S Water is much more economical to install as it has a small footprint and lightweight design, but a large 20 horsepower (HP) capacity. So instead of installing two 10HP units, you only need one 20HP Samsung unit – using 30% less space and significantly reducing the costs of valves, fittings and gauges. You can also combine up to three units to create a total capacity of 60HP.

Optimal Water Flow Controller

DVM S Water's built-in Water Flow Controller helps control the amount of water used to cool and heat the outdoor unit. It determines the optimum flow of water based on the internal temperature of the spaces, so the circulation pump's energy consumption is optimised and costs reduced. And because it's provided as standard, there's no need to buy a separate water flow control kit.

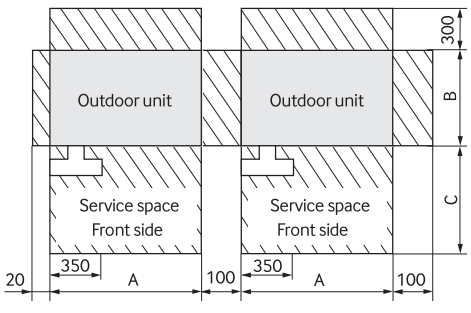
Specifications may be subject to change without prior notice for product improvement.
1) Nominal cooling capacities are based on; Indoor temperature : 27°C DB, 19°C WB / Inlet water temperature : 30°C / Equivalent refrigerant piping : 7.5m, Level differences : 0m
2) Nominal heating capacities are based on; Indoor temperature : 20°C DB, 15°C WB / Inlet water temperature : 20°C / Equivalent refrigerant piping : 7.5m, Level differences : 0m
3) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

Units: mm



Module or Continuous Installation

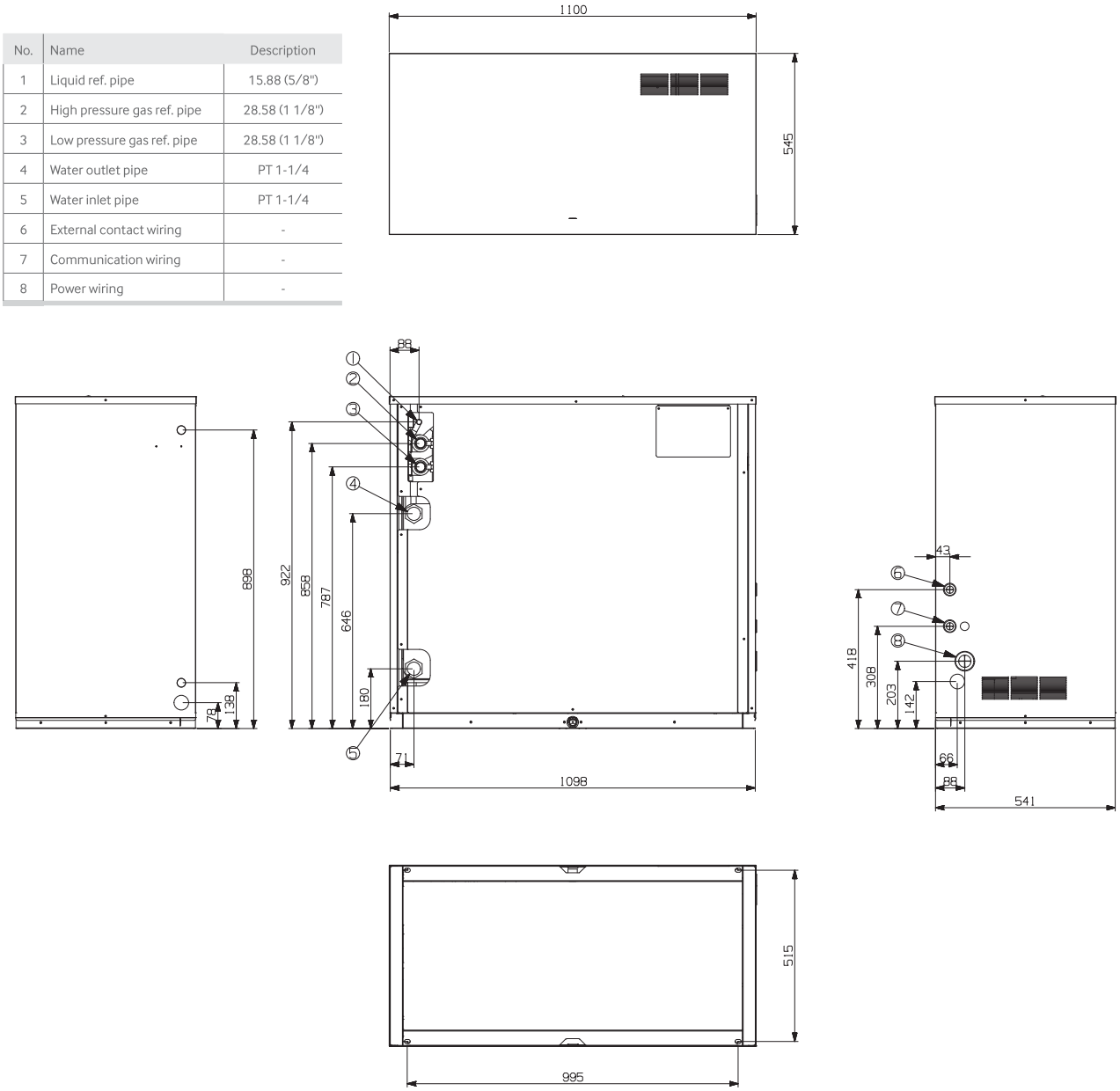
Model Name of Outdoor Unit	A	B	C
AM080/100/120FXWA	770	545	600
AM200FXWA	1100		



<Top view>

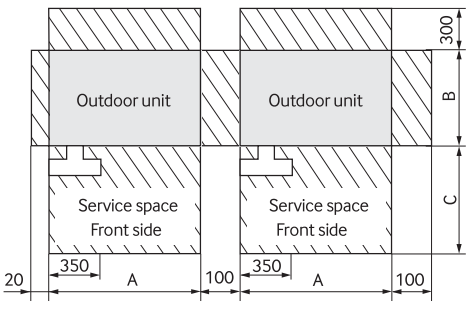
Units: mm

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



Module or Continuous Installation

Model Name of Outdoor Unit	A	B	C
AM080/100/120FXWA	770	545	600
AM200FXWA	1100		



<Top view>

DVM S Eco Specifications

Model Name				AM040FXMDEH (DGH)	AM050FXMDEH (DGH)	AM060FXMDEH (DGH)
Power Supply			Φ, #, V, Hz	1,2,220-240,50 (3,4,380-415,50)		
Mode			-	HEAT PUMP		
Performance	HP		HP	4.00	5.00	6.00
	Capacity (Nominal)	Cooling	kW	12.10	14.00	15.50
		Heating		13.50	16.00	18.00
	SEER			6.85	6.24	5.75
	EER			4.18	3.80	3.60
	COP			4.46	4.43	4.10
Power	Power Input (Nominal)	Cooling [1]	kW	2.89	3.69	4.31
		Heating [2]		3.02	3.60	4.40
	Max. Current		A	22.00 (MCA) (10/ph)	24.00 (MCA) (12/ph)	32.00 (MCA) (12/ph)
	Fuse Rating			32 (16/ph)		40 (25/ph)
COP	Nominal Cooling		-	4.19	3.79	3.60
	Nominal Heating		-	4.47	4.44	4.09
Fan	Air Flow Rate		CMM	110	100	
			l/s	1,833	1,666	
Piping Connections	Liquid Pipe		Φ, mm	-	-	-
			Φ, inch	3/8"		
	Gas Pipe		Φ, mm	-	-	-
			Φ, inch	5/8"		3/4"
	Installation Limitation	Max. Length	m	150 (175)		
		Max. Height		50.0 (40.0)		
Refrigerant	R410A (GWP=2088)		(tCO2e)	6.68		6.89
	Factory Charging		kg	3.20		3.30
Sound [3]	Sound Pressure		dB(A)	50.0	51.0	53.0
	Sound Power			66.0	67.0	69.0
External Dimension	Net Weight		kg	100.0		103.0
	Net Dimensions (WxHxD)		mm	940 x 1,210 x 330		
Operating Temp. Range	Cooling		°C	-5.0 ~ 48.0		
	Heating			-20.0 ~ 26.0		

These products contain Fluorinated greenhouse gas R410A (GWP=2088).

Specifications may be subject to change without prior notice for product improvement.
1) Nominal 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) Nominal 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 level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

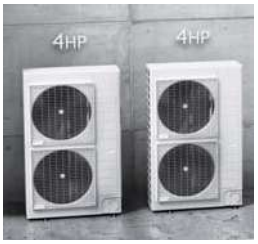
	AM080FXMDGH	AM100KXMDGH	AM120KXMDGH	AM140KXMDGH
	3,4,380-415,50			
	HEAT PUMP			
	8.00	10.00	12.00	14.00
	22.40	28.00	33.50	40.00
	25.00	31.50	37.50	45.00
	6.22	7.09	6.94	6.83
	3.92	3.84	3.82	3.78
	5.12	4.67	4.79	4.55
	5.72	7.29	8.77	10.59
	4.88	6.74	7.83	9.88
	18.00 (MCA)	21.50	23.50	32
	25	30	30	40
	3.92			
	5.12			
	135	165	166	180
	2,250	2750	2767	3000
	-	-	-	-
	3/8"	3/8"	1/2	
	-	-	-	-
	3/4"	7/8	1 1/8	
	100 (100)	160 (185)		
	30.0 (30.0)	50 (40)		
	7.73		8.98	10.02
	3.70	3.70	4.30	4.80
	56.0	58.0	59.0	62.0
	74.0	74.0	76.0	79.0
	135.0	145.0	155.0	162.0
	940 x 1420 x 330	940 x 1630 x 460		
	-5.0~48.0			
	-20.0 ~ 24.0	'-25.0~24.0		

Small in Size and Weight. Big on Choice and Efficiency

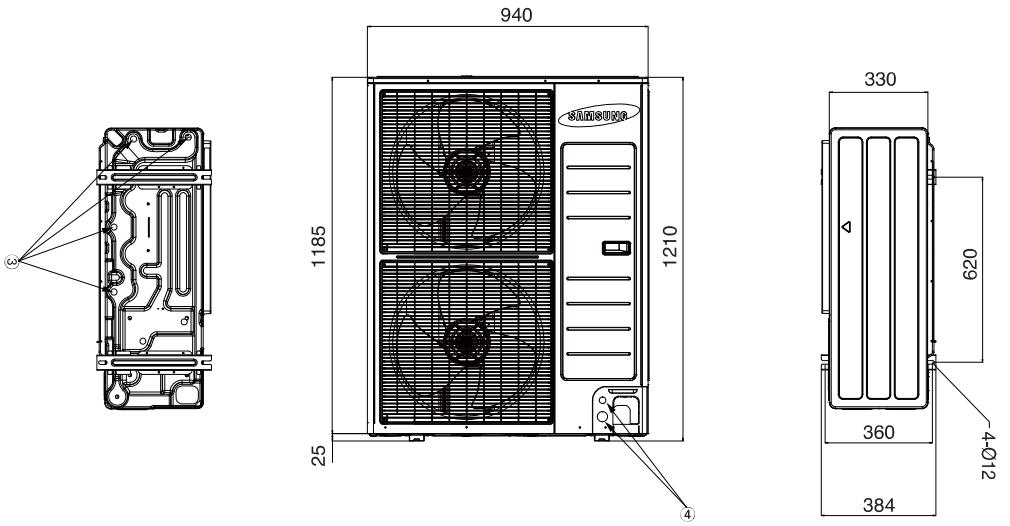
The DVM S Eco air conditioning system is a compact and efficient outdoor unit that's suitable for a wide range of homes and small businesses. It's available in a wide choice of capacities and also features a compact and lightweight design, making it very easy and economical to install and use. And it's also extremely quiet, so whatever your needs, you can enjoy optimum efficiency and comfort anywhere.

DVM S Eco

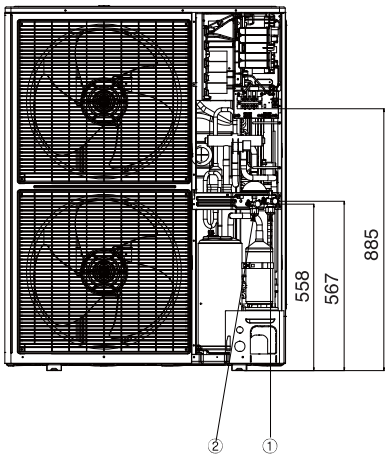
Conventional



Units: mm

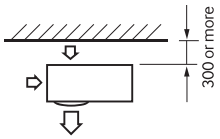


No.	Name		Description
1	Gas ref. pipe	Ø, mm	12.1, 14.0 kW : 15.88, 15.5 kW : 19.05
2	Liquid ref. pipe	Ø, mm	9.52
3	Condensate drain holes	Ø, mm	20 x 4
4	Power and communication wiring holes	Ø, mm	22.2 x 3 / 34.5 x 3

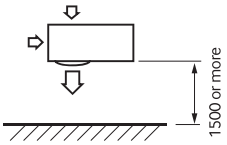


When installing 1 outdoor unit

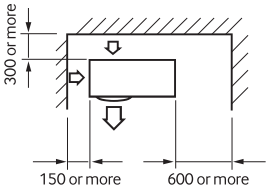
When the air outlet is opposite the wall



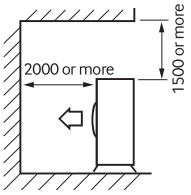
When the air outlet is toward the wall



When 3 sides of the outdoor unit are blocked by the wall

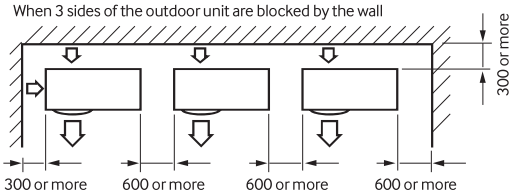


The upper part of the outdoor unit is blocked and the air outlet is toward the wall

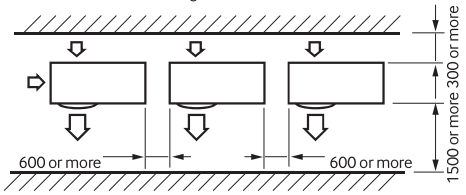


When installing 1 outdoor unit

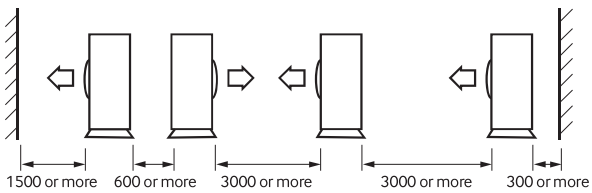
When 3 sides of the outdoor unit are blocked by the wall



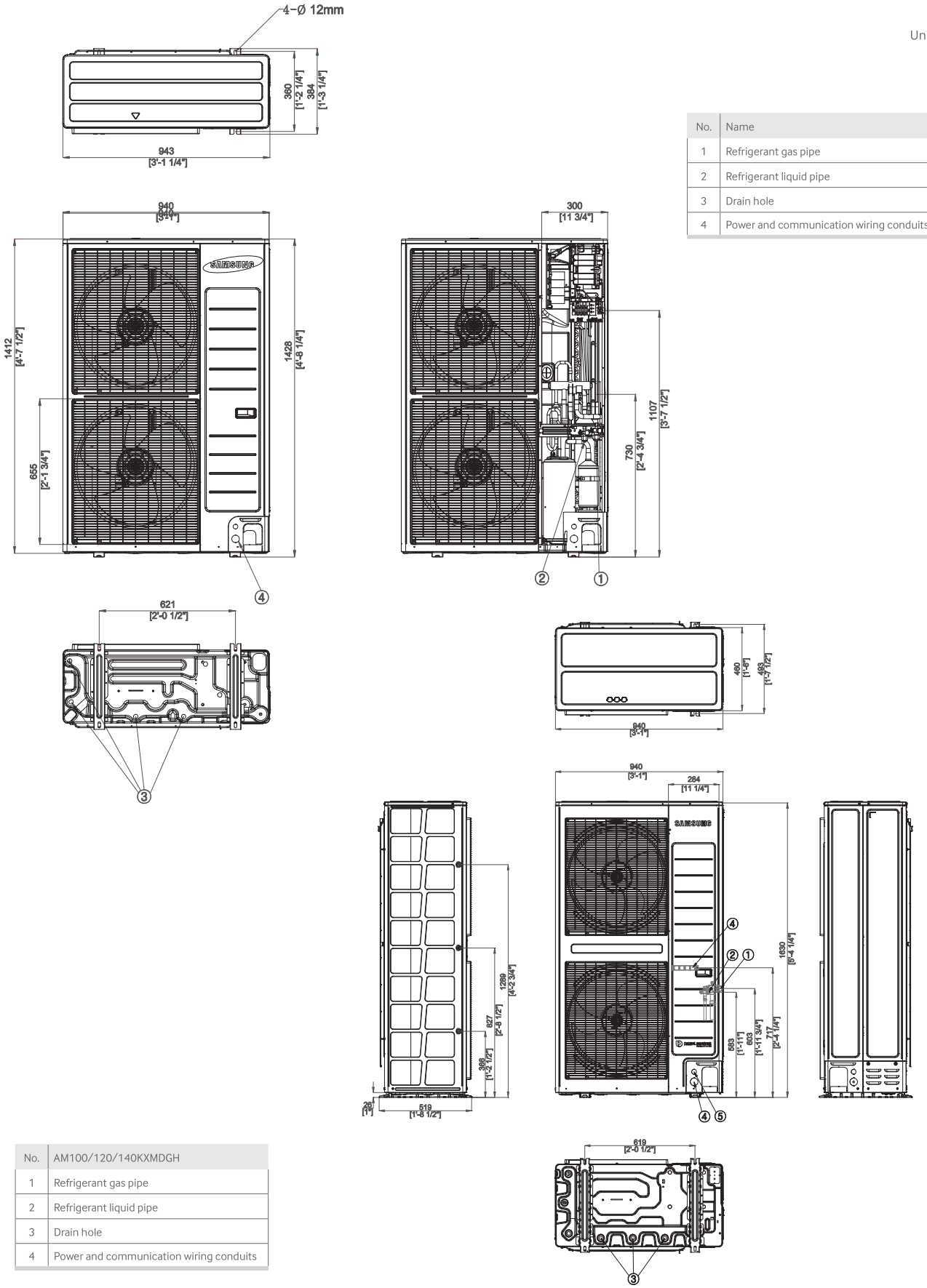
When the walls are blocking front and the rear of the outdoor units



When front and rear side of the outdoor unit is toward the wall



Units: mm



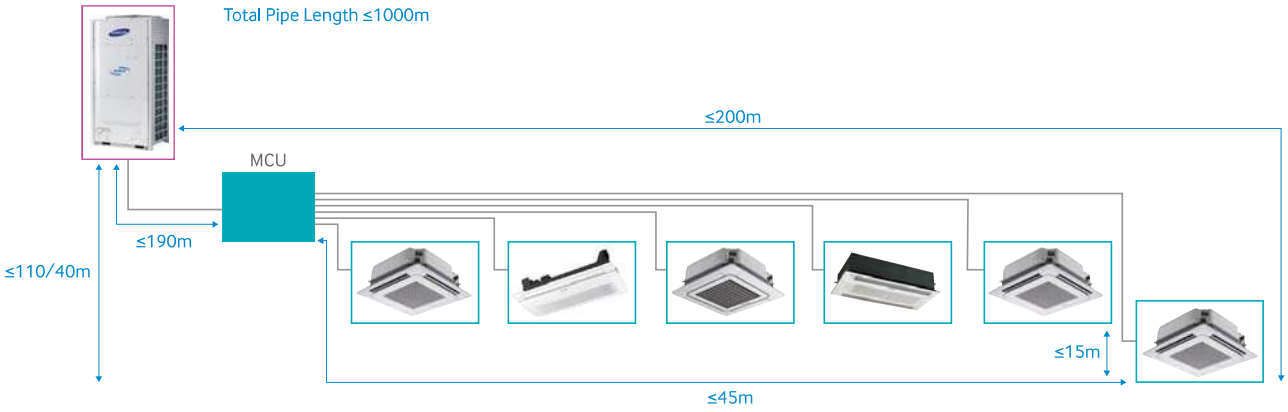
No.	Name
1	Refrigerant gas pipe
2	Refrigerant liquid pipe
3	Drain hole
4	Power and communication wiring conduits

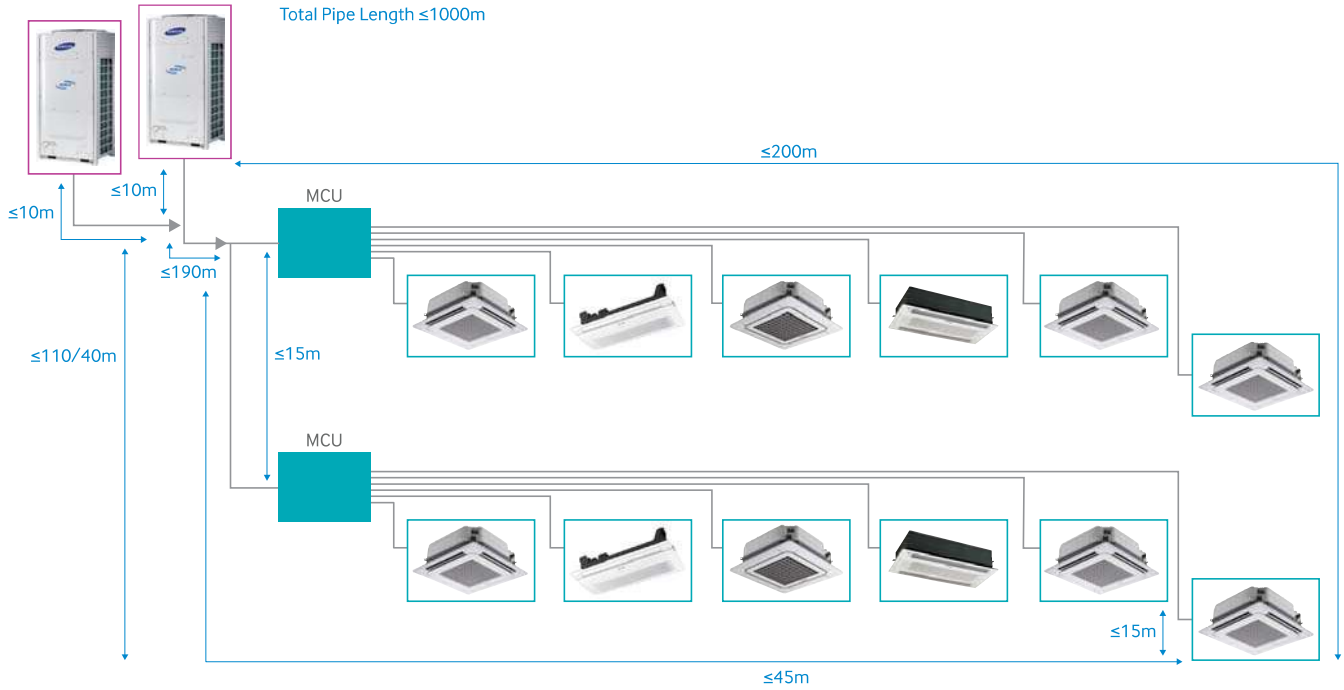
No.	AM100/120/140KXMDGH
1	Refrigerant gas pipe
2	Refrigerant liquid pipe
3	Drain hole
4	Power and communication wiring conduits

Piping Diagram DVM S Heat Recovery

Heat Recovery DVM S systems utilise MCU boxes to facilitate the connection of the 3-pipe outdoor units to the liquid and gas connection on each indoor unit. The piping restrictions as shown below must be used in conjunction with the correct pipe sizing table as detailed in the installation manual. Alternatively, use the DVM Pro design programme to produce a project-specific piping schematic.

Multiple outdoor units and MCU boxes are connected via branch pipe kits (installed horizontally) to facilitate the connection of the 3-pipe outdoor units to the liquid and gas connection on each indoor unit. The piping restrictions as shown below must be used in conjunction with the correct pipe sizing table as detailed in the installation manual. Alternatively, use the DVM Pro design programme to produce a project-specific piping schematic.



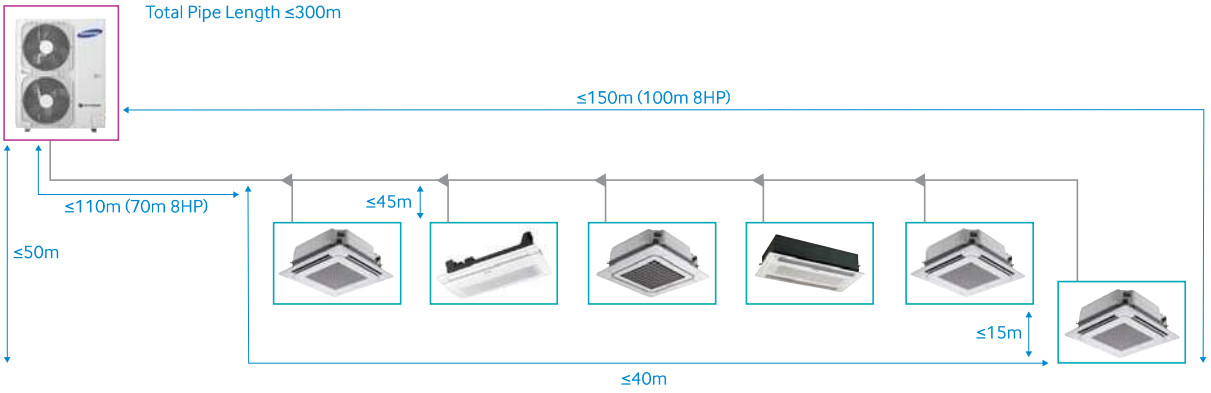


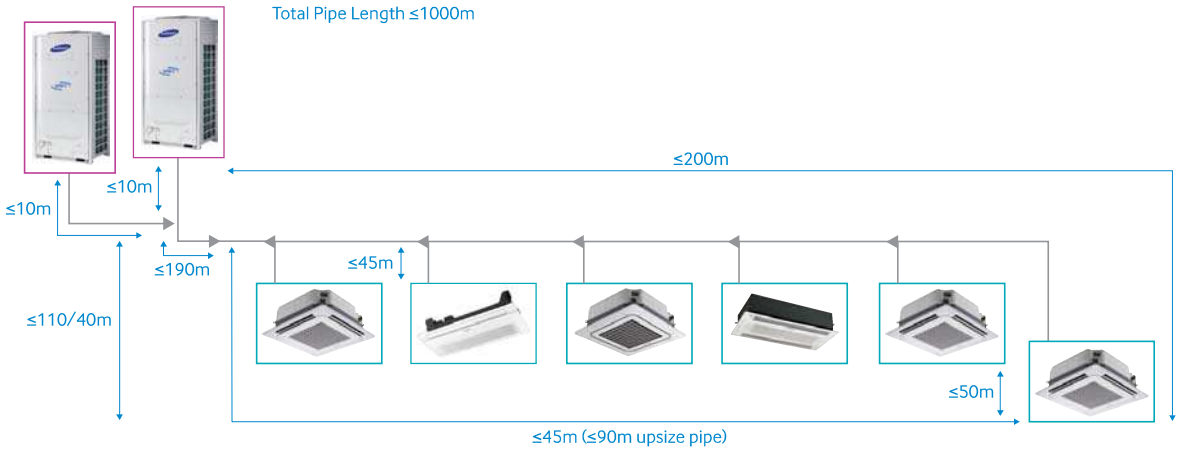
Note: To allow for increased pipe lengths from first branch, the pipes must be increased by one size.
Height differences between outdoor and indoor over 50m must utilise a PDM kit.
Please contact your local Samsung dealer for more details.

Piping Diagrams DVM S Eco | DVM S Heat Pump

The 2-pipe Heat Pump DVM S systems utilise branch pipe kits (installed horizontally) to connect outdoor unit to the liquid and gas connection on each indoor unit. The piping restrictions as shown below must be used in conjunction with the correct pipe sizing table as detailed in the installation manual. Alternatively, use the DVM Pro design programme to produce a project-specific piping schematic.

Multiple outdoor units are connected via branch pipe manifold kits. The piping restrictions as shown below must be used in conjunction with the correct pipe sizing table as detailed in the installation manual. Alternatively, use the DVM Pro design programme to produce a project-specific piping schematic.





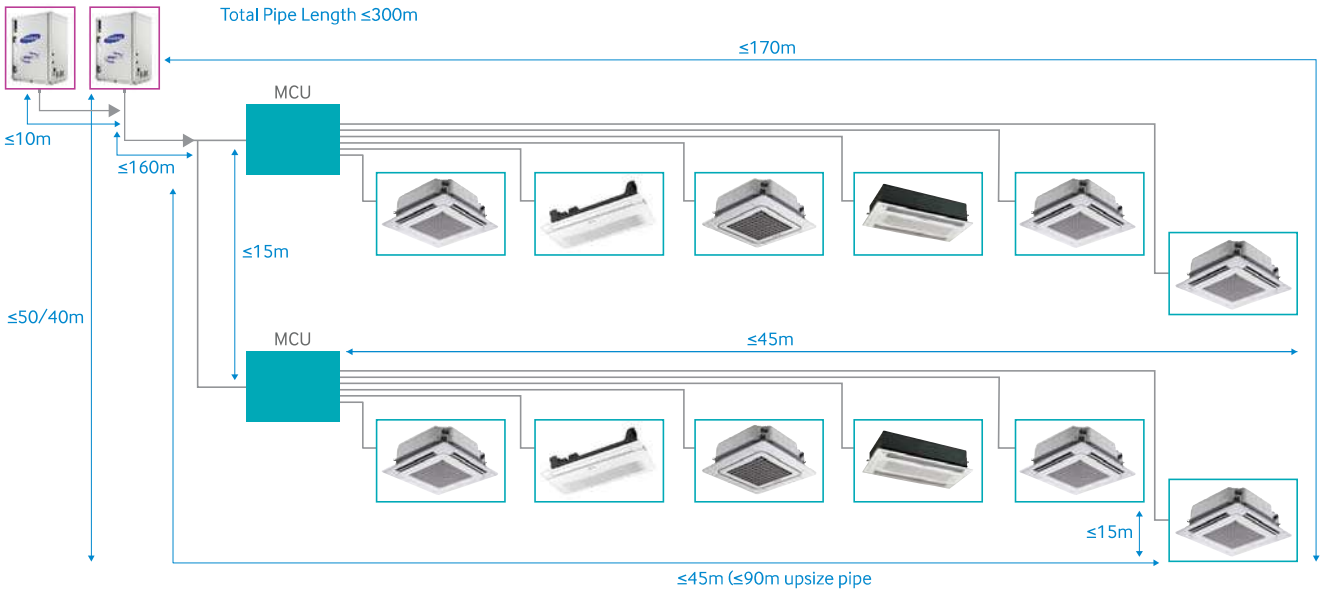
Note: To allow for increased pipe lengths from first branch, the pipes must be increased by one size.
Height differences between outdoor and indoor over 50m must utilise a PDM kit.
Please contact your local Samsung dealer for more details,

Piping Diagram

DVM S Water Heat Pump | Heat Recovery

DVM S Water system is manufactured as a combined Heat Pump/ Heat Recovery system. The HR systems utilise MCU boxes to facilitate the connection of the 3-pipes to the liquid and gas connection on each indoor unit.

2-pipe Water Heat Pump DVM S systems utilise branch pipe kits (installed horizontally) to connect the outdoor unit to the liquid and gas connection on each indoor unit. The piping restrictions as shown below must be used in conjunction with the correct pipe sizing table as detailed in the installation manual. Alternatively, use the DVM Pro design programme to produce a project-specific piping schematic.



Note: To allow for increased pipe lengths from first branch, the pipes must be increased by one size.

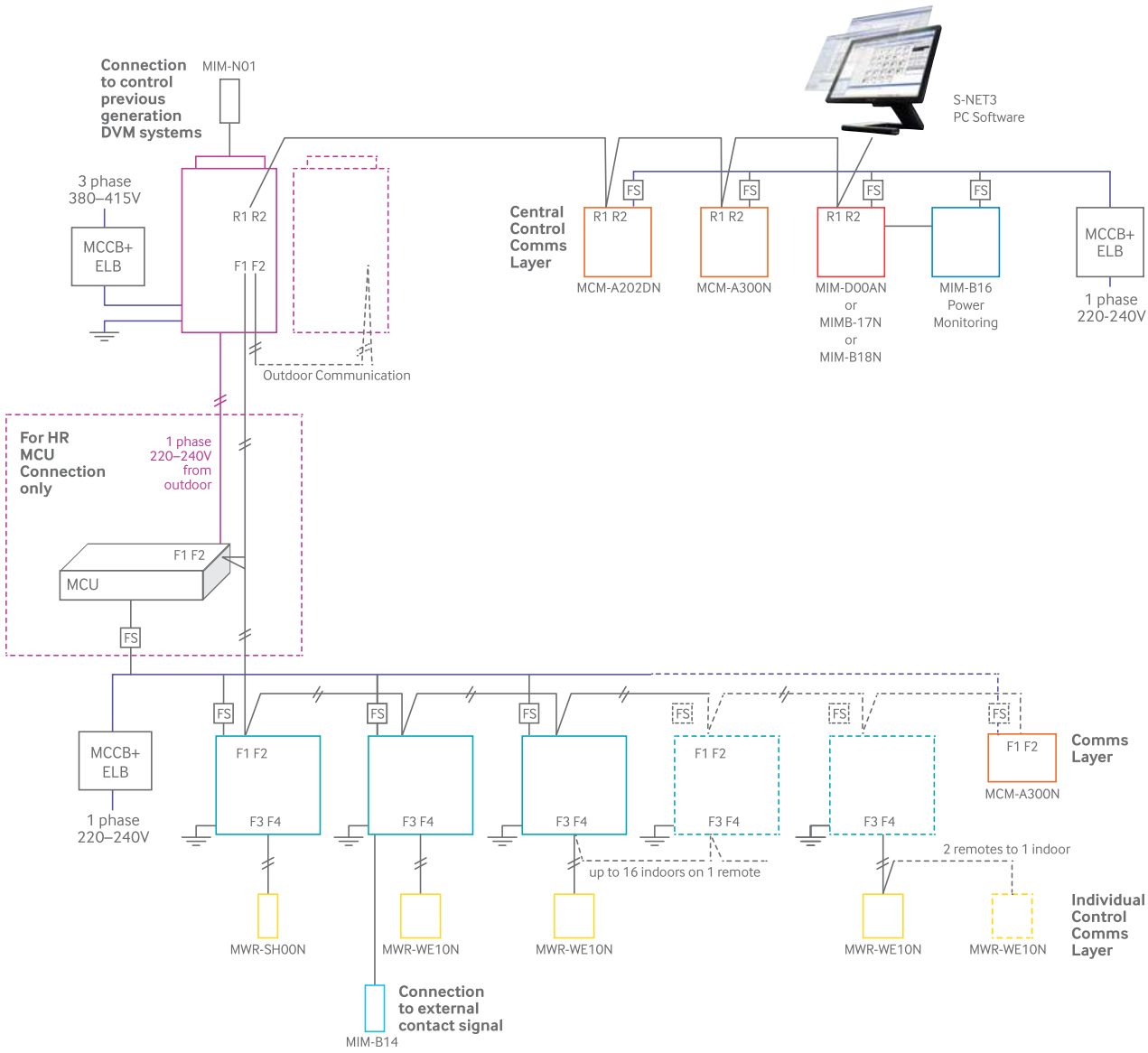
Wiring Diagram

DVM S Eco | DVM S Water | DVM S Heat Pump | DVM S Heat Recovery

The wiring for all DVM S systems follow the same configuration of separate fused power supplies for outdoor and indoor units, which are connected via a non-polar 2-core communication wire.

Individual controllers are wired directly to the indoor units and high level central controls are connected directly to the outdoor unit (the touch controller can be connected to either).

All wiring must be installed as detailed in the installation manual. Alternatively, use the DVM Pro design programme to produce a project-specific wiring schematic.



Note: All power supplies, fuses, breakers and communication wiring must be selected and installed using local regulations and specifications. Always check the power wires are properly connected prior to switching on to avoid damage to electrical components.

Controls Line-up

Classification	Model Code	Image	Description	Application
Individual Control	MR-DH00 AR-KH00E		Wireless Remote Controller	Heat pump wireless controller for use on all units with infrared receivers
	MWR-WE10N		Wired Remote Controller	Full function wired controller for use with all indoor units, ERV and AHU
	MWR-SH10N			Touch screen, simplified wired controller for use in hotel applications
	MWR-SH00N			Simplified wired controller for use in hotel applications
	MRK-A10N		Wireless Signal Receiver	Ducted unit wireless receiver unit
	MIM-H03N		Wi-Fi Controller	Wi-Fi module to control units from afar using mobile device
	MRW-TA		External Remote Temp. Sensor	External room sensor with 12m lead
Centralised Control	MCM-A300N		Centralised Controller	Touch-screen central controller – full function up to 64 indoor units
Building Management	MIM-D01AN		DMS 2.5	Programmable Mini BMS – 256 indoor units, full control, inputs/outputs
	MST-P3P		S-NET 3	PC web server to control and monitor up to 4,096 units via DMS2 modules
	MIM-B18BN		Lonworks G/W	DMS2 with built-in Lonworks BMS gateway
	MIM-B17BN		BACnet G/W	DMS2 with built-in BACnet BMS gateway
Power Monitoring	MIM-B16N		Electricity Meter Power Monitoring	Power monitoring module for DMS2 – up to 8 Watt/hr meters
	MCM-C210N			To allow individual VRF unit power interruption without error, i.e., hotel bedrooms, apartments
External Contact Interface	MIM-B14		External Contact Interface	On/Off operation control and Run/Fault indication interface
Converter	MIM-N01 and MIM-N10		NASA Converter	Interface previous generation RS485 communication protocol with current NASA protocol
	MIM-C02N		S-Net Converter	Diagnostic software interface

Individual Control

Wireless Remote Controller | MR-DH00 AR-KH00E (360 cassette)

- On/Off, Operation Mode, Fan Speed, Airflow, Temperature Setting
- Simple schedule control
- Individual blade control for 4way cassette models
- Multi-channel wireless remote control (maximum 4 channels)

Wired Remote Controller | MWR-WE10N

- On/Off, Operation Mode, Fan Speed, Airflow, Temperature Setting
- Individual and group control (maximum 16 indoor units)
- Error display
- Built-in Room Temperature sensor
- Automatic stop mode
- Wireless remote control restriction
- Unified controller (AC, ERV, ERV PLUS, AHU)
- Different permission levels
- Weekly schedule setting (A/C, ERV, A/C+ERV)
- Exception date setting
- Individual blade control for 4way cassette models
- MWR-WW00N (for DVM S Hydro)

Simplified Wired Remote Controller | MWR-SH00N/MWR-SH10N

- On/Off, Operation Mode, Fan Speed, Airflow, Temperature Setting
- Individual and group control (maximum 16 indoor units)
- Error display
- Mode selection protection
- Touch screen control (MWR-SH10N)

Wi-Fi Control Module | MIM-H03N

- Control via mobile app (available to download)
- On/Off, Operation Mode, Fan Speed, Airflow, Temperature Setting
- 7-Day schedule setting
- Energy monitoring

Wireless Signal Receiver | MRK-A10N

- On/Off control
- Operation indication
- Error indication
- Filter replacement sign
- Use with receiver wire, MRW-10A

External Room Sensor | MRW-TA

- External sensor to sense exact user environment temperature
- Wire length: 12m

Centralised Control

Touch Centralised Controller | **MCM-A300N**

- 7-inch Colour Capacitive Touch Screen
- Easy and Intuitive UI
- Individual/Zone control, Scheduling, Energy saving control
- Emergency operation control by external contact
- Control up to 128 indoor units
- DS card for programming and data download

Easy and Intuitive UI

- Various icons based on equipment and operation condition
- Smart phone style user-friendly control
- Individual/group management

Control and Monitoring

- Easy to check each device's status using colour and icon
- Large-size icons for ease of use
- High and low temperature limitation settings
- Individual unit restriction settings

Zone Management for multiple units

- Manage up to 12 zones
- Simply control zones with one button
- Set unique zone description icons to easily recognise each zone
- Easily bind multiple indoor units to create a zone

Schedule Control

- Set up to 10 operation schedules
- Apply these schedules to any unit or zone
- Create operation events for each schedule, including: temperature setting, mode and fan speed

Building Management | Server

DMS 2.5 (Data Management Server) | MIM-D01AN

The improved Data Management Server has become smarter: it can manage a variety of different air conditioning units, and the newly upgraded functions can automatically manage the air conditioning system for you.

- Built-in web server for PC-independent management and remote access control
- Multiple upper-level control access (S-NET 3, S-NET Mini, Web-client)
- Central management of up to 256 indoor units including ERV, ERV PLUS and AHU
- User-editable control logic
- Accessible level management
- Dynamic security management
- Operation and error history management
- Weekly/Daily schedule control
- Power distribution function
- Current time management even during power failure (for 24 hours)
- Data storage in non-volatile memory and SD memory
- Emergency stop function with simple contact interface
- 8 External inputs and 6 outputs provide control and monitoring for third-party devices

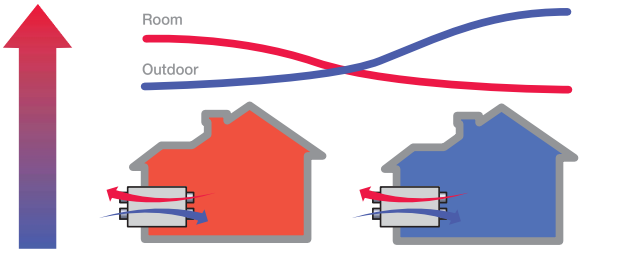
Enhanced Graphical display

Building Management | Server

DMS 2.5 Mini-BMS

Programmable Control Logic

- The user can control the air conditioning, ERV, AHI and digital outputs using an arithmetic equation and conditional operators/parameters from the equipment operating conditions including volt-free inputs from external equipment
- Control logic can utilise the 8 external inputs and 6 outputs, permitting interaction between air conditioning and third-party devices
- Using this powerful functionality, energy can be efficiently used and reduced for various operation conditions



Logic	Outdoor temp < Room temp	Room temp < Outdoor temp
Control	Turn ON ERV (Cool air Intake UP)	Turn ON Air Conditioner

EHP / ERV / AHU Parameters
Temperature, Power, Mode...

AND
OR

Outdoor temp < 10	Outdoor temp > 25
Heating mode	Cooling mode

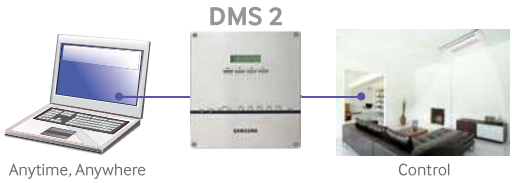
Arithmetic Equation Function
<, >, =, =>, =<, Average

EHP / ERV / AHU Parameters change
Setting temperature, Power, Mode, Fan speed...

*Example: Energy saving function, operation adjustment depending on outdoor temperature.

Easy Control and Monitoring

- Control and monitoring of up to 256 indoor units via internet network
- Operation On/Off
- Operation mode, fan speed, temperature setting
- ERV, ERV PLUS, AHU support



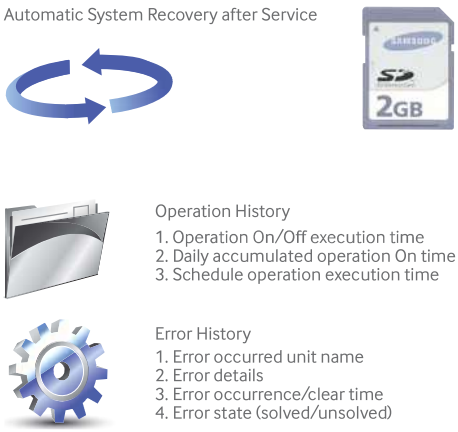
Specification		Attribute/Function
Indoor Unit Connection	(Max.)	256 Indoor Units (128 per channel)
Outdoor Unit Connection	(Max.)	80 Outdoor Units
Indoor Unit Control	-	All Indoors, ERV, AHU
Dimensions (WxHxD)	mm	240 x 255 x 65
Power	-	100–240V AC (DC adaptor)
Communication	Lower Level	RS485 (to Outdoor/PIM)
	Upper Level	Ethernet 100 Base-T (web browser)
Direct Interface	-	LCD Display (4 soft keys), LED Indicators
PIM Connection (MIM-B16)	(Max.)	8
Touch Screen Connection (MCM-A300N)	(Max.)	16
Emergency Stop	-	Pulse or Level Input
Inputs	(Max.)	8 Volt-free (Open/Short)
Outputs	(Max.)	6 Contact Signal (12V)
Programmable Logic (per condition) – Boolean logic	-	3 Logic Functions (per input)
	-	20 Output Logic Factors

Building Management | Server

DMS 2.5 Features

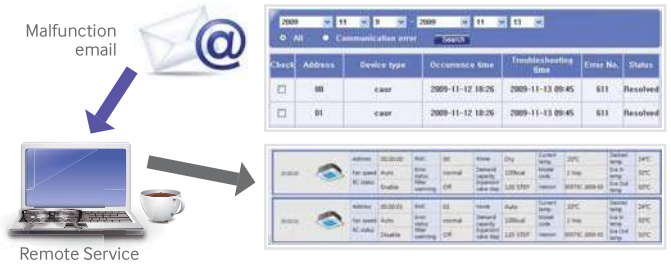
Powerful Data Backup

- DMS 2 records indoor unit operation and error occurrence history
- Recorded history makes it convenient to analyse air-conditioner operation and perform unit maintenance
- Important data is safely stored on SD memory card:
  1. Indoor/outdoor unit name
  2. Power distribution data
  3. Operation history (On/Off by DMS)
  4. DMS power On/Off history
  5. System configuration
  6. Others



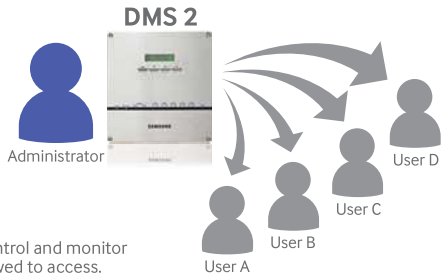
Rapid and Easy Service Response

- Remote control and monitoring through the internet (if public IP is used)
- Email notification to private internet account in case of malfunction



Dynamic User Security Management

- It is possible to specify the scope of control and monitoring unit by each user
- General users, managers, and administrators can be registered separately by ID and password
- Administrators (utility managers) have the authority to set access levels for DMS 2 functions on users



Each user can only control and monitor the units they are allowed to access.

Functions	Admin	Manager	User
	Access All	Changeable	
Control / Monitoring	O	O	O
Zone Management	O	O	X
Schedule	O	O	O
Power Distribution	O	O	X
System Configuration	O	X	X

Building Management | Power Monitoring

Power Distribution System

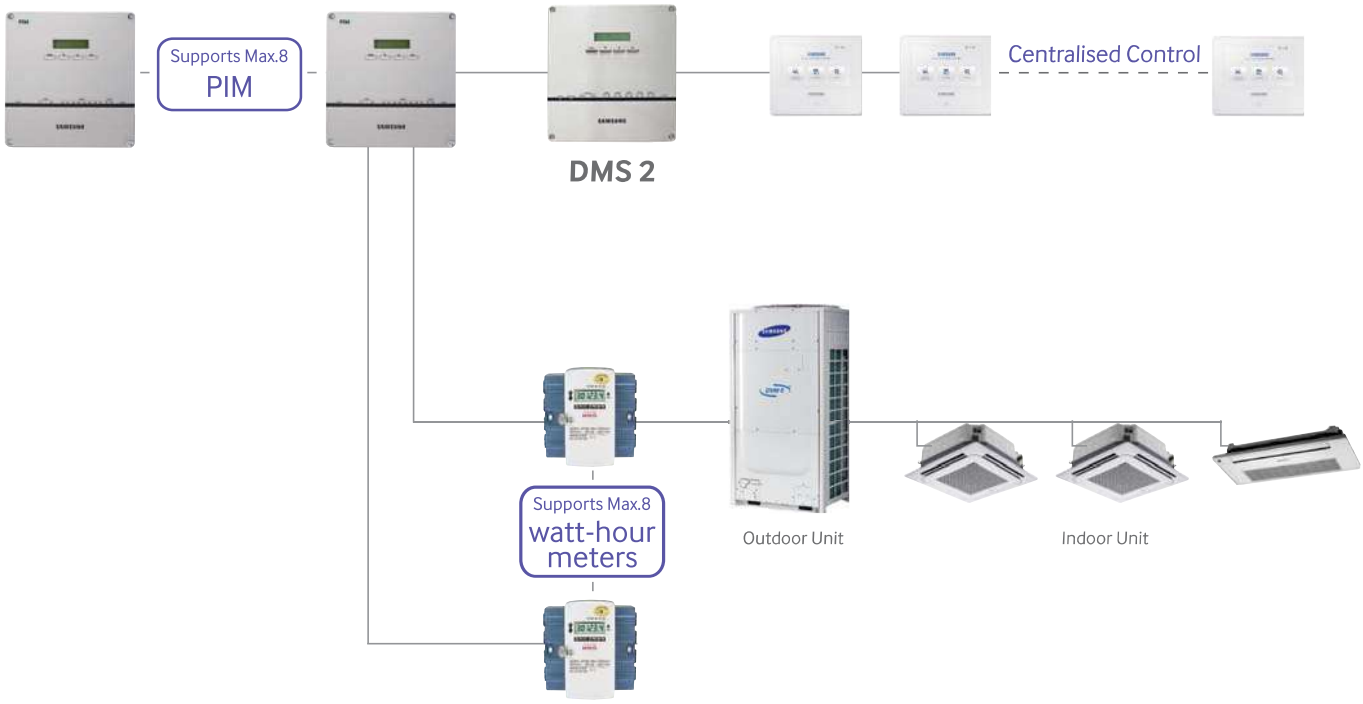
- Power distribution to a maximum of 256 indoor units
- Data query for watt-hour, usage time and usage ratio
- Files are saved in Microsoft Excel format
- 1-year power distribution data is saved in storage
- Current actual power consumption monitoring
- Current-type electricity meter support (CT ratio input)

Watt-hour Meter Interface Module | MIM-B16 PIM (Pulse Input Module)

Watt-hour Meter Interface Module can be exclusively used for DMS 2 power distribution, displaying power consumption for each watt-hour meter.

- Exclusive use for DMS 2 power distribution
- Connection with up to 8 watt-hour meters
- Pulse interface with watt-hour meters
- Power consumption display for each watt-hour meter

Connection



Building Management | Gateways

A DMS 2.5 with built-in BACnet or LonWorks gateways (all the features of a DMS2, plus interface to your chosen BMS).

BACnet Gateway | MIM-B17BN (DMS-Bnet)

With the BMS control and monitoring function, BACnet gateway makes it easy to control the air conditioning network in various ways. It can control up to 256 indoor units, used in combination with S-NET 3 and MCM-A300N.

- Interface for BACnet management system
- Maximum 256 indoor units plus ERVs support with a maximum of 80 interface modules
- Includes DMS 2 functions

LonWorks Gateway | MIM-B18BN (DMS-Lnet)

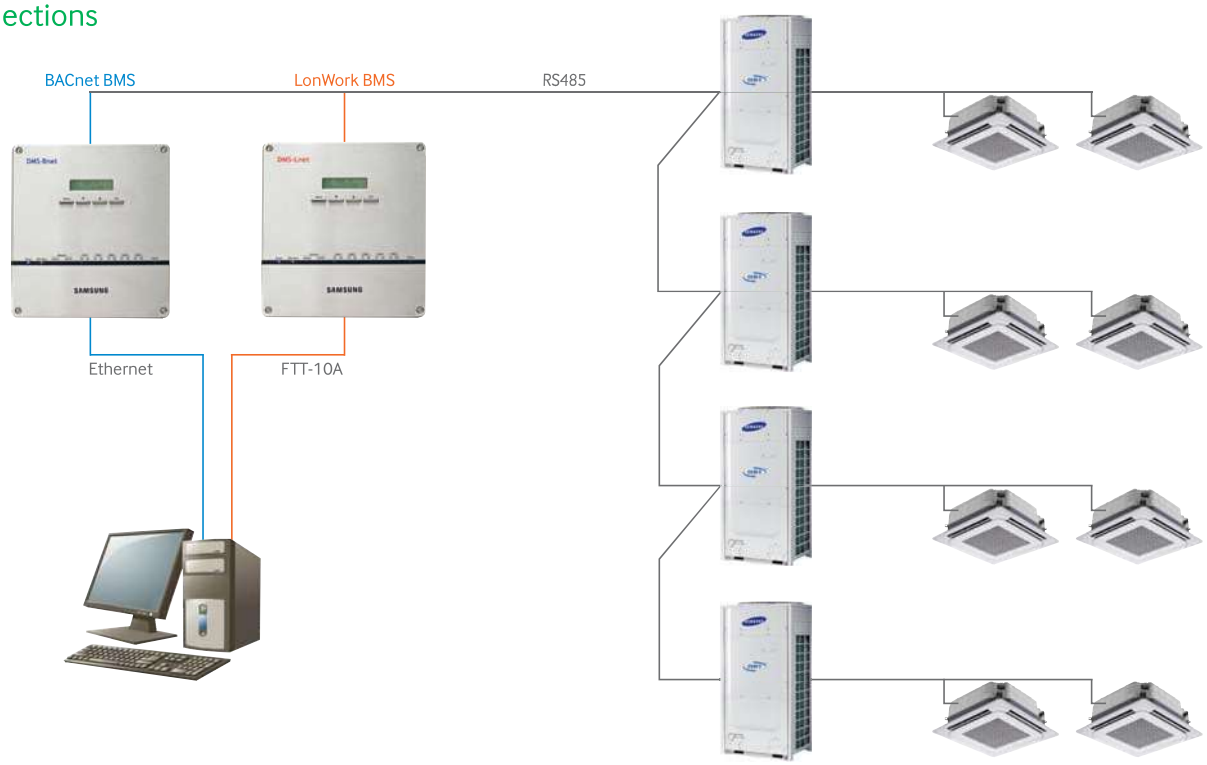
LonWorks gateway is an interface for Lon-Connection to LonWorks management system, providing a more convenient way to manage your air conditioning system. It can control a maximum of 128 indoor units, used in combination with S-NET 3 and MCM-A300N.

- Interface for Lon-Connection to LonWorks management system
- Maximum 128 indoor units plus ERVs support with a maximum of 80 interface modules
- Includes DMS 2 functions

Features for BACnet and LonWorks Gateways

Control	• On/Off control	• Filter alarm reset
	• Operation mode	• User control restriction
	• Temperature setting	• Operation mode lock
	• Fan speed/direction	• Set temperature limit
	• ERV operation mode	• Emergency stop
	• ERV fan speed	• Output contact control
Monitoring	• On/Off control	• Thermo On/Off
	• Operation mode	• Power distribution
	• Set/Room temperature	• Operation mode lock
	• Fan speed/direction	• Set temperature limit
	• ERV operation mode	• In/Out contact state
	• ERV fan speed	• Emergency stop
	• Filter alarm	• Error code
	• User control restriction	

Connections



Web Server | External Contact Interface

Web Server, S-NET 3 | MST-P3P

A PC programme designed to manage an estate of air conditioning systems via DMS2 Data Management Servers.

- Fully integrated PC management software
- Up to 16 DMS 2 connection through the ethernet
- Central management of up to 4,096 indoor units including ERV, ERV PLUS and AHU
- Schedule/Zone control
- Error/Operation history management
- Power distribution management and analysis

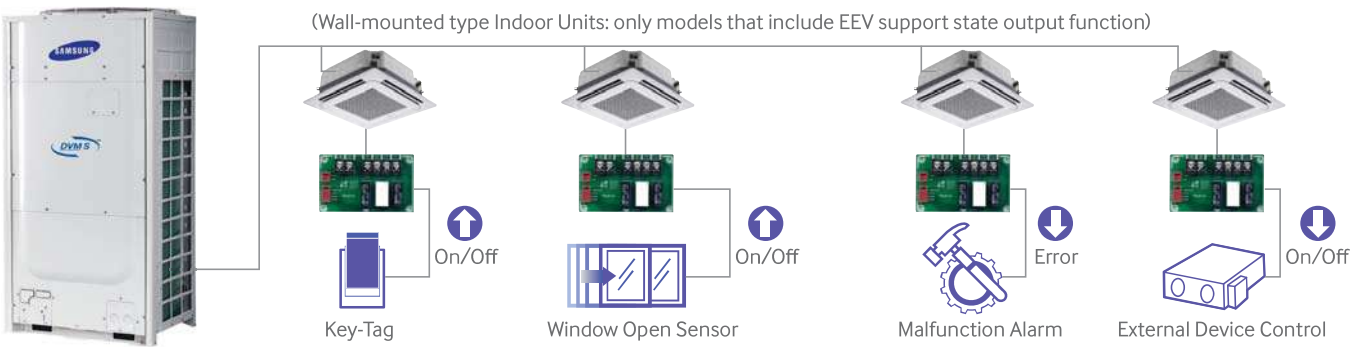
External Contact Interface | MIM-B14

- Direct indoor unit control by external contact signal
- Window-synchronised indoor unit control
- Emergency control with simple contact input
- Indoor unit operation/error state output through relay contacts

Guestroom Management Module

Guest Room Management system saves you energy and money on cooling an unoccupied room: The air conditioner is activated when Key-Tag is in place and turns off when Key-Tag is removed.

Example



Air-to-Air Heat Exchangers – ERV

Model Name	AN026JSKLKN	AN035JSKLKN	AN050JSKLKN	AN080JSKLKN	AN100JSKLKN
Air Volume (m^3/hr)	260	350	500	800	1000
Air Flow Rate (l/s) high/low	72 / 50	97 / 71	139 / 100	222 / 156	278 / 192
Temperature exchange efficiency	70%				
Static Pressure (Pa) turbo/high/low	100 / 65 / 55	155 / 100 / 83	165 / 100 / 85	155 / 90 / 80	155 / 90 / 75
Sound Pressure (dB(A)) high/low	31 / 22	32 / 23	35 / 24	36 / 25	37 / 26
Dimensions WxHxD mm	600 x 350 x 660	1012 x 270 x 1000		1220 x 340 x 1135	
Weight kg	28.5	42.5		67	
Spigot dimensions (mm - diameter)	150	200	200	250	250

*All models: 1ph 220-240V power supply (5A).

Controls

Control options include:

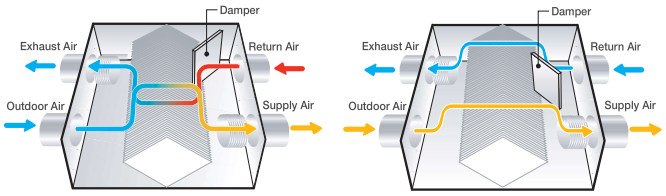
- MWR-VH12N Standard Individual control
- MWR-WE10N Combined a/c indoor/ERV controller

The ERV can also be interfaced with touch central controller, DMS2 and BMS gateways, using MIM-N10 interface.

MWR-VH12N

Automatic Energy Saving Operations

ERV automatically changes its operation mode depending on the temperature difference between your indoor and outdoor environment to save energy. (Manual selection also available)

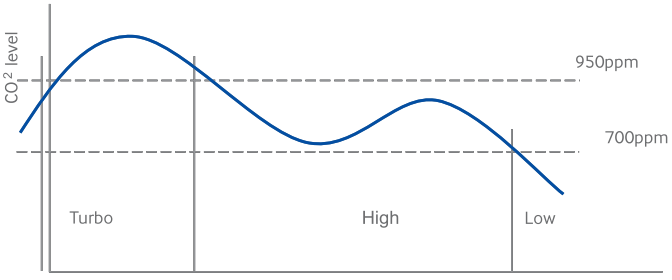


Heat recovery mode (summer/winter)

Ventilation mode (spring/autumn)

Smart CO2 Sensor (Option)

ERV is automatically operated to give fresh air into room by sensing CO_2 level. When the CO_2 level increases, the fan will automatically increase speed. Only the amount of air required to keep the CO_2 level on an acceptable level will be ventilated.



Heat Exchange/Temperature Exchange Efficiency, Comply with regulations to promote high efficiency energy devices,
[Cooling], Indoor(24˚C DB/17˚C WB), Outdoor(35˚C DB/24˚C WB)
[Heating], Indoor(22˚C DB/13.9˚C WB), Outdoor(2˚C DB/0.44˚C WB)
Sound level was acquired in an anechoic room.