

**SAMSUNG**  
Climate Solutions

Commercial

# Product Catalogue

# 2024

# Highlights for 2024



NEW

## Touch Centralized Controller TCC 2.0

Customizable to harmoniously  
blend into your space

### Effortless Service

Service History

### Intuitive Control

SmartThings Style UI

### Efficient Management

Dashboard on the Home Screen



NEW

## Ceiling

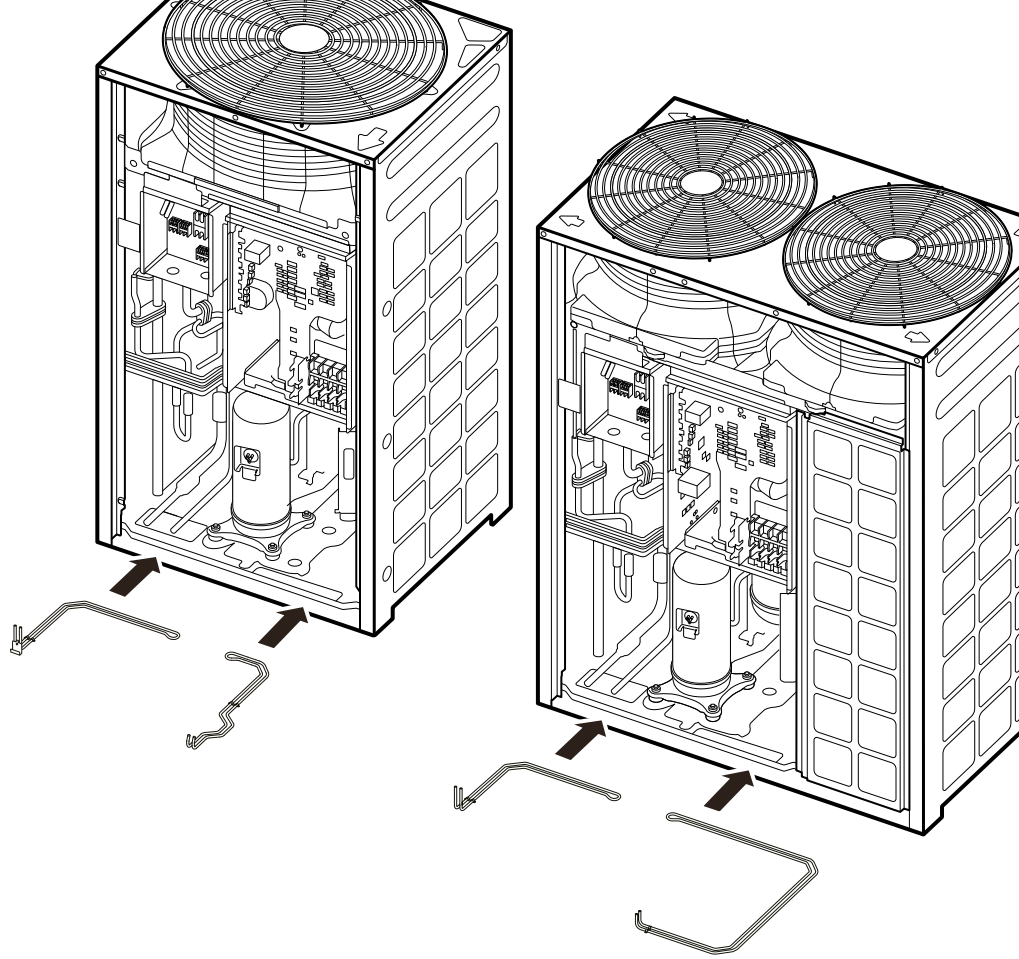
- New model code replacement for 5.6kW & 7.1kW
- Upgraded BLDC motor
- Included EEV
- Bigger chassis, better sound pressure for 7.1kW



NEW

## Base heater Kits

Base heater kits are used to prevent ice formation and to promote water drainage after defrost cycles in extreme low ambient temperatures for DVM S Eco and DVM S2 outdoor units.



NEW

## Packaged Floor Standing PAC

- New model code replacement for 28kW
- Sirocco fan driven by upgraded BLDC motor
- Auto external static pressure control
- Embedded single Wi-Fi kit helps to control via SmartPhone



## b.IoT Lite

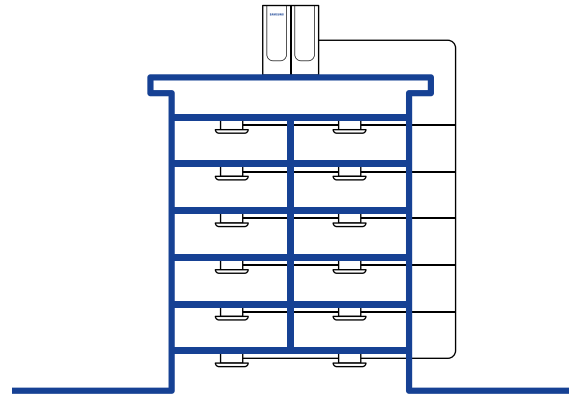
- Differentiated control screen
- Operation history management
- Convenient control authority setting
- Management of connected devices (open protocol support for 3rd party devices)
- Energy saving for air conditioning (embedded algorithm)
- Energy use management



# Product overview

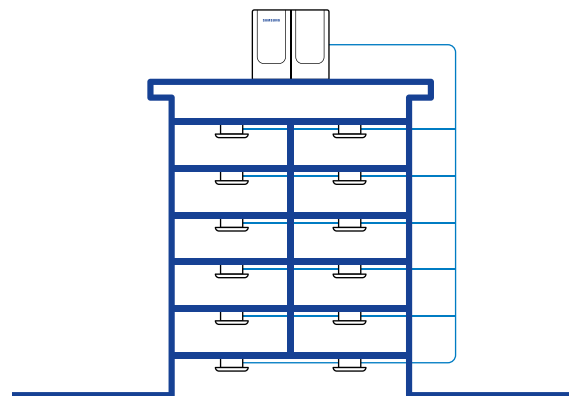
## VRF (DVM)

A Samsung VRF air conditioning system offers high installation flexibility with the new DVM S2 platform outdoor units, which can connect to up to 64 indoor units. This is an ideal solution for medium-sized to large commercial buildings, with the option of independently cooling or heating multiple rooms simultaneously.



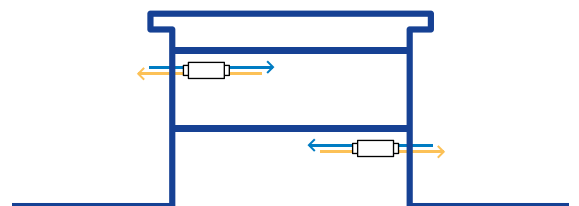
## VRF Chiller (HVM)

A Samsung VRF Chiller air conditioning system follows a modular concept with the option of combining up to 16 HVM outdoor units to form one climate solution, which can be connected to a wide range of Fan Coil Units. The system utilises water for comfortable cooling and heating of any type of space.



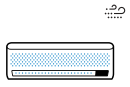
## Ventilation (ERV)

A Samsung ERV system brings fresh outside air into a room to optimise indoor air quality, while automatically adjusting its operation mode in accordance with indoor and outdoor temperatures. It can be connected to a Samsung VRF system to form a total climate solution.



# Available Samsung product range

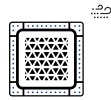
## indoor units



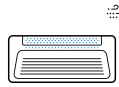
Wall-Mounted



360 Cassette



4-Way Cassette



1-Way Cassette



Duct



Floor



Ceiling

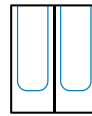


Ventilation unit

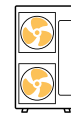


Console

## outdoor units



VRF



Mini VRF



Water system



Hydro unit

## controls



Wireless



Wired



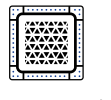
Centralised



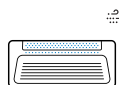
Wall-Mounted



360 Cassette



4-Way Cassette



1-Way Cassette



Duct



Concealed



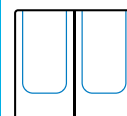
Cased



Ventilation unit



Console



Large VRF Chiller



Mini VRF



Water system



Hydro unit



Wireless



Wired



Centralised



Wall-Mounted



360 Cassette



4-Way Cassette



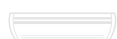
1-Way Cassette



Duct



Floor



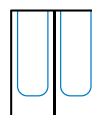
Ceiling



Ventilation unit



Console



Large VRF



Mini VRF



Water system



Hydro unit



Wireless



Wired



Centralised

Schematic drawings are for illustrative purposes only. For accurate installation information please consult the technical data book. The selection of the exact product is subject to specific application conditions. FCU = Fan Coil Unit. For more detailed product information and technical specifications, please consult the respective product pages of this Product Catalogue.



# Table of contents



8

## Introduction

Samsung Climate Solutions  
Reference project  
Regulations and standards  
Certifications



20

## Innovations in detail

DVM S2  
DVM S Water  
DVM S Eco  
Heat Recovery for DVM  
HVM Chiller  
LSP Slim Duct  
MSP/HSP Duct S  
Airzone  
WindFree™ Deluxe **UNIQUE**  
WindFree™ 4-Way Cassette **UNIQUE**  
WindFree™ 1-Way Cassette **UNIQUE**  
360 Cassette  
ERV (Plus)  
Air Handling Unit (AHU) Kit  
b.IoT Lite



62

## VRF (DVM)

Line-up outdoor  
Line-up indoor  
Selection guide  
Nomenclature  
DVM S Eco Heat Pump  
DVM S2 Essential Heat Pump (2-Pipe)  
DVM S2 Standard Heat Pump (2-Pipe)  
DVM S2 High Efficiency Heat Pump (2-Pipe)  
DVM S Eco Heat Recovery  
DVM S2 High EER Heat Recovery (3-Pipe)  
DVM S Water  
WindFree™ 4-Way 600 x 600 Cassette **UNIQUE**  
WindFree™ 4-Way Cassette **UNIQUE**  
WindFree™ 1-Way Cassette **UNIQUE**  
360 Cassette  
LSP Duct  
MSP Duct **NEW**  
HSP Duct  
Console  
Floor/Ceiling **NEW**  
Big Ceiling  
Concealed Floor-Standing  
Concealed Floor-Standing High Static  
Packaged Floor-Standing **NEW**  
WindFree™ Deluxe (EEV included and EEV excluded) **UNIQUE**  
Max Wall-Mounted  
Hydro Unit  
Mode Control Unit (MCU)  
AHU Kit for Outdoor Unit



# 200

## VRF Chiller (HVM)

- Line-up outdoor
- Line-up indoor
- Selection guide
- Nomenclature
- HVM Chiller
- WindFree™ 1-Way Cassette FCU **UNIQUE**
- WindFree™ 4-Way Cassette FCU **UNIQUE**
- 360 Cassette FCU
- Concealed FCU
- Cased FCU

# 228

## Ventilation (ERV)

- ERV
- ERV Plus for DVM S
- OAP Duct for DVM S



# 240

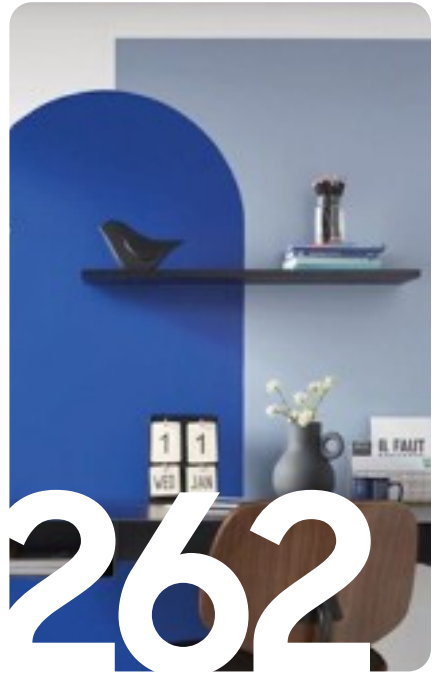
## Controls

- System Air Conditioner
- Innovations in detail | TCC 2.0 **NEW**
- Line-up
- Compatibility guide
- Selection guide
- Features and dimensional drawings

# 256

## Accessories

Line-up **NEW**



# 262

## Design and support

- Climate Solutions Partner Portal
- DVM Pro 2.0
- HVM Selection Tool
- Specialist design support
- Climate Solutions Academy

This document may either contain preliminary values or may lack some values that were not yet available at the time of creation. To obtain the latest information, please consult the Samsung Climate Solutions Partner Portal at [partnerhub.samsung.com/climate](https://partnerhub.samsung.com/climate) or contact your Samsung representative.

# Samsung Climate Solutions help people find their flow

Samsung Climate Solutions aims to help people find their flow, so they may feel and live their best life – be it at work, play or rest. We are committed to offering more energy-efficient solutions with innovative cooling, heating, domestic hot water, refrigeration and smart building solutions. For every space where people create memorable experiences together, be it commercial spaces or residential homes.

## We offer:



Ventilation



Hot water



Cooling



Heating

## Services we provide to empower our partners:



Expert  
training



Project  
design



Technical  
support



Marketing  
platforms

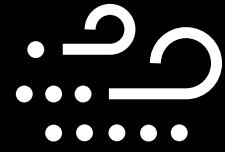


Spare  
parts



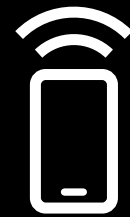


WindFree™



WindFree™ Cooling

SmartThings



Wi-Fi Control

b. IoT



Building Management System

**Our flagship  
innovations that  
enrich people's lives**

# Corporate and Technology milestones that make us proud

## 1974

Samsung introduces its first air conditioner.



## 2014

Arrival of the Samsung TDM concept, an all-in-one heat pump solution for heating, cooling and domestic hot water supply.



## 2005

Samsung Electronics enters the European market for commercial air conditioning.

## Our market-centric product ranges

Home	Apartments	Hotel	Retail	Office	Education	Restaurant	
RAC   FJM	RAC FJM DVM						Residential
CAC   FJM	CAC FJM DVM				CAC		Light Commercial
					DVM   HVM  ERV	DVM	Commercial
EHS							Heating
							Controls

# 2015

Introduction of the Samsung 360 Cassette, the world's first circular air conditioner that fits seamlessly into the design of any space.



# 2017

Samsung Electronics opens Samsung Electronics Air Conditioner Europe B.V. (SEACE) in Amsterdam.



Samsung WindFree™ technology comes onto the market, gently and evenly dispersing fresh air through thousands of micro-holes to limit cold drafts.

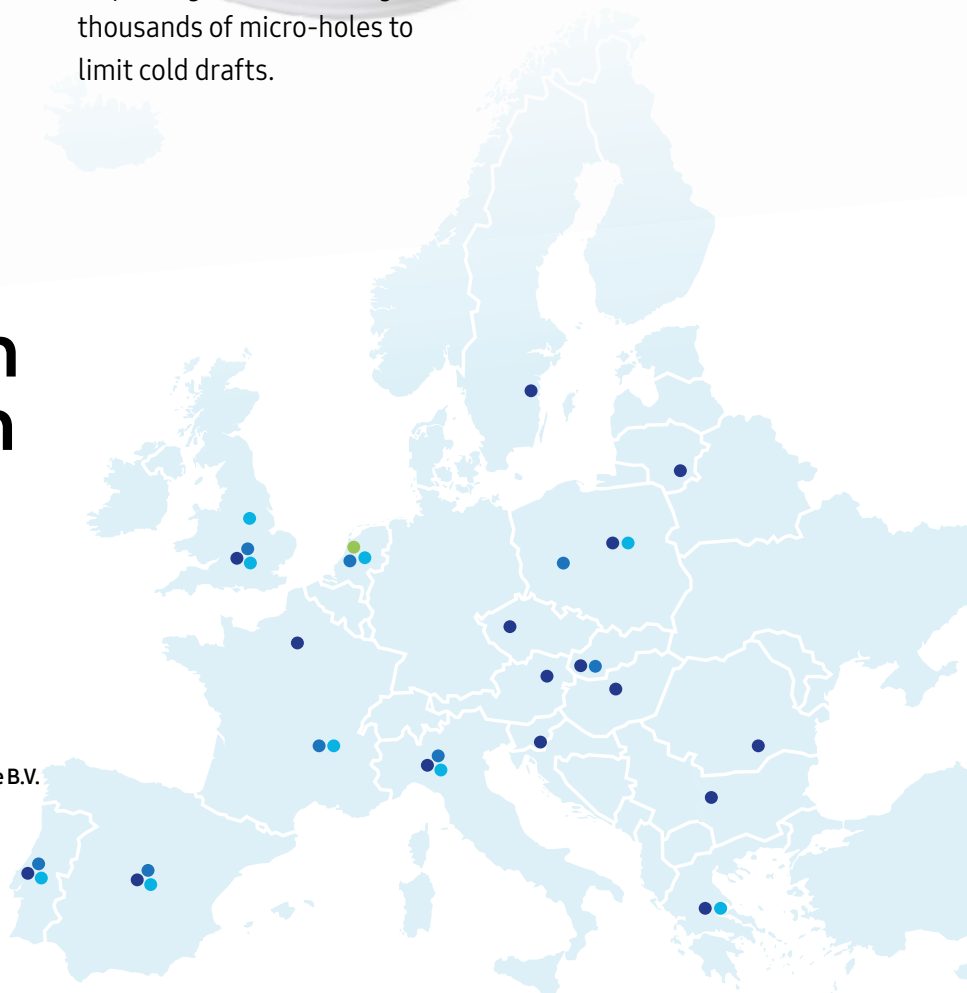
# 2021

Samsung launches the sixth generation of its Digital Variable Multi the DVM S2 equipped with AI technology, enhanced energy efficiency performance, easier installation and serviceability.



## Our European footprint with the locations from which we operate

- 1 | Samsung Electronics Air Conditioner Europe B.V.
- 16 | Samsung offices
- 8 | Warehouses
- 9 | Training centres





## Reference Project

# Meadow, Herent

The challenge in this 68-apartment sized residential new development project was to find a central heating system that is sustainable, silent, performant and small in size due to limited space. Thanks to our partnership with Samsung we were able to provide our client a cascade construction of high efficiency outdoor units and low temperature hydro units. Now all apartments receive comfortable heating without inconveniences. The low sound pressure and the high available static pressure that allows channeling the outdoor units' air makes this a unique solution.



## Jeroen Vercammen

Project manager at Belcotec

### Application

Residential New Development

### Samsung products installed



DVM S2 High efficiency outdoor units



DVM Hydro Low Temperature



BACnet







# Regulations and standards



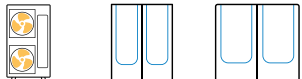
We monitor applicable environmental standards and laws and regulations in the context of our climate solutions operations. Samsung also conducts environmental improvement activities across all product development, production, distribution, use and disposal phases.

## Ecodesign

The Ecodesign Directive for Energy Related Products (ErP) aims to raise awareness about the energy efficiency of products, while stimulating manufacturers to make their products more energy efficient from the design phase. The Directive is applicable to a broad range of cooling and heating products, which have been divided into different lots.

LOT 10 was implemented on 1 January 2013 and covers air conditioners with a capacity less than 12 kW, typically residential or light commercial systems. It requires manufacturers to provide highly visible information regarding energy efficiency, including an energy label. LOT 1 and 2 took effect on 26 September 2015

and include residential air to water heat pumps for space heating and hot water production respectively (< 400 kW). It is mandatory to provide energy labels for products with a capacity less than 70 kW. On 1 January 2018, LOT 21 came into force. LOT 21 covers commercial cooling and heating products with a capacity greater than 12 kW. It does not require manufacturers to publish energy labels, but energy performance data should be made available online.

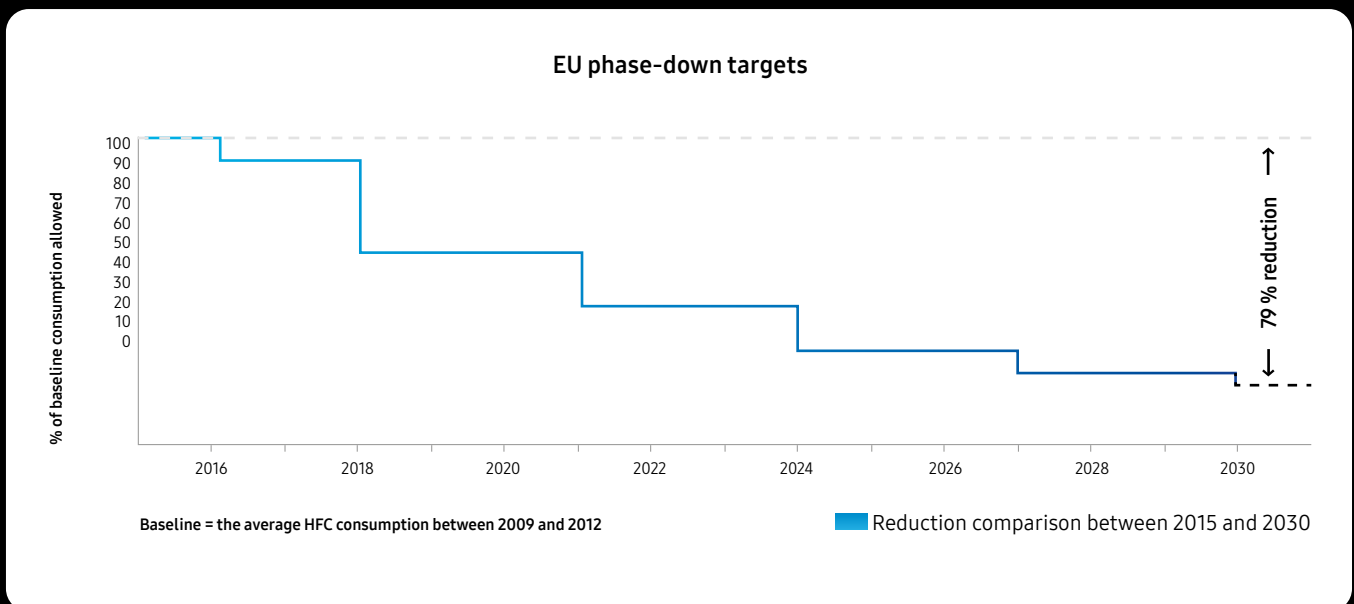
	LOTS 1/2	LOT 10	LOT 21
<b>In effect since</b>	26 September 2015	1 January 2013	1 January 2018
<b>Applicable products</b>	A2W heat pumps < 400 kW	Air conditioners < 12 kW	Air conditioners > 12 kW
<b>Energy label required</b>	✓	✓	
<b>Samsung product range</b>	 EHS	 RAC   FJM   CAC	 CAC   DVM   HVM



# F-Gas regulation

The EU aims to reduce the environmental impact of F-gases through the reduction of the CO<sub>2</sub> equivalent consumption of HFCs (hydrofluorocarbons). EU regulation 517/2014 prescribes a phase-down of HFCs, where the quantities of HFCs that are placed on the market are gradually reduced through the allocation of quotas by the European Commission. The phase-down targets are expressed in CO<sub>2</sub> equivalents (= kg x GWP – Global Warming Potential) and aim

to reduce HFC consumption by 79 % in 2030. For new installations of single split air conditioners with a refrigerant charge below 3 kg, the GWP limit is set at 750 starting in 2025. The regulation has been put into force to motivate the industry and its users to transition to refrigerants with a lower GWP. Samsung is doing their part to transition to lower GWP refrigerants such as R32 and will continue to invest in better alternatives for the environment.



# EN378 standard

Effective since 31 May 2017, the European EN378 standard provides guidance for companies who design, install, operate and maintain air conditioners, heat pumps and similar systems that use refrigerants. Based on the access characteristics of occupied spaces into which a refrigerant could leak, and an assessment of the refrigerant’s toxicity and flammability, refrigerant charge limits are set and safety measures are prescribed to mitigate risk in the possible event of a refrigerant leakage.

Access categories range from general access areas, such as hotels, restaurants and shopping areas, to more restricted supervised and authorised areas.

The location of refrigerant systems follows a classification of four classes, where VRF systems are typically defined as Class II, either located in a machine room or in the open air. Subject to the available ventilation in rooms, additional measures may be needed such as mechanical ventilation or detectors.

Samsung offers specialist support to professionals in the design of cooling and heating installations. Please contact your Samsung representative to enquire about support in aligning your project design with the requirements of the EN378 standard.





# WEEE: Electronic Waste

Samsung adheres to the WEEE (Waste Electrical and Electronic Equipment) Directive. This Directive applies to the principles of extended producer responsibility. It stipulates the safe collection, treatment, recycling and environmentally sound disposal of all electrical and electronic equipment. By working with collective recycling schemes in each EU member state Samsung co-finances the take-back and recycling of electronic products.

## Batteries

Samsung has been giving new life to used batteries by funding collection, treatment and recycling by local battery recycling organisations.

## Packaging

Samsung works together with recycling schemes and governmental organisations to collect, separate and reuse all packaging materials at various points in the distribution chain. Many materials can be recycled into new products and recycling helps to save natural resources. Recycling packaging helps to reuse valuable raw materials and to reduce the overall impact on the environment.



# Certifications

## Intertek

Intertek is a leading Total Quality Assurance provider to industries worldwide verifying air quality<sup>1</sup>. To deliver credibility, Intertek maintains extensive global accreditations and recognitions for testing and certification services. Working with Intertek helps showcase and maintain products' safety and performance attributes. Intertek's expertise in regulatory standards and certifications keeps you ahead of changes and challenges.

Intertek offers certification programmes that achieve market entry into a variety of global destinations, programmes for a

more eco-friendly environment and also programmes to verify social accountability compliance for both manufacturers and suppliers.

Samsung's Tri-Care Filter, Air Purification Panels for WindFree™ Pure PM 1.0, WindFree™ 1-Way Cassette, WindFree™ 4-Way Cassette and 360 Cassette have been verified by Intertek.



## Eurovent

Eurovent is globally known for its quality mark 'Eurovent Certified Performance' which certifies performance ratings of air-conditioning and refrigeration products according to European and international standards. The 'Eurovent Certified Performance' mark indicates that the prescribed quality requirement has been fulfilled and should not require the need to be proven after the customer's decision and after the manufacturer's production process.

Eurovent is an accredited third-party certification body. It builds customer confidence by leveling the competitive playing field for all manufacturers and by increasing the integrity and accuracy of the industrial performance ratings. Thus providing

trustworthy services to the entire ecosystem. Samsung air conditioning products ranging from the Single Split (RAC), Multi Split (FJM), Commercial Split (CAC), Variable Refrigerant Flow (VRF) and EHS line-up in the 'Air-to-Water' (A2W) heat pump category are all Eurovent certified.

To check the ongoing validity of the Eurovent certified products from Samsung, please visit: [www.eurovent-certification.com](http://www.eurovent-certification.com)



<sup>1</sup> Our products have not been tested for their effects on the COVID-19 virus. Therefore, we do not make or give any express or implied claims or guarantees with regard to COVID-19.





# Innovations in detail

# Higher Energy Efficiency

## DVM S2

The DVM S2 is equipped with four innovative technology components that together result in the DVM S2 delivering greater energy efficiency.





### The 7th Generation of IGBT

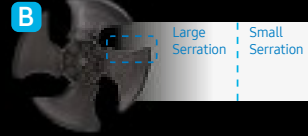
The High-efficiency IGBT (Insulated Gate Bipolar Transistor) reduces the loss of conducted electricity.



### Enlarged Heat Exchanger

The enlarged Heat Exchanger can transfer more energy at once, and its optimized refrigerant path maximizes the transfer rate while minimizing any loss. These heat exchanger allow for 36.2 % greater heat transfer area on the smaller platform<sup>1</sup> and 23.7 % greater heat transfer on the larger platform<sup>2</sup>. The power module which is an integral part of the inverter system is improved as it lowers heat dissipation and saves energy.

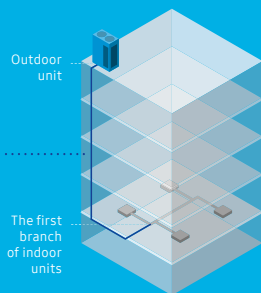
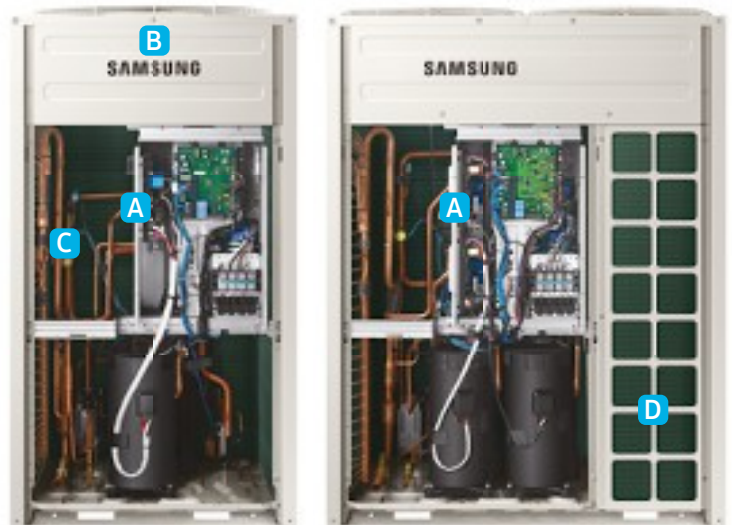
<sup>1</sup> DVM S2 equipped with larger heat exchanger than conventional model AM100JXVAGH/ET. HX Length: 1,700 mm → 1,910 mm. Platform Width : 880 → 930 [mm].  
<sup>2</sup> DVM S2 equipped with larger heat exchanger than conventional model AM200KXVAGH/ET. HX Length: 2,100 mm → 2,600 mm.



### Multi-serration Fan

The aerodynamic Multi-serration Fan minimizes the turbulence of the air vortex, which reduces the air resistance. The high efficiency Multi-Serration fan lowers power consumption by 32 % while providing more airflow<sup>1</sup>. The unit uses a superior Samsung scroll compressor which makes the unit more energy efficient compared to the current DVM S range.

<sup>1</sup> Multi serration fan adopted for small platform. Based on 12 HP models comparison.



## Slimmer Liquid Line (Optional Diameter Reduction)

The DVM S2 requires less refrigerant as it can use a slimmer liquid line<sup>1</sup>. So, it saves costs on the installation and maintenance of refrigerant and piping materials. In addition, the decreasing of pipes can result in refrigerant reduction by 28 %<sup>2</sup>. As long as the maximum piping length is met it is possible to install a liquid line pipe with a diameter that is one level smaller for the main run. This allows you to save on pipe and refrigerant usage.

<sup>1</sup> A slimmer liquid line can be used between an outdoor unit and the first branch of indoor units. The diameter of the slimmer pipe will vary depending on the diameter of the pipe that is normally used. It may not be available in certain installation conditions, and is not compatible with certain AI functions of outdoor units. Please contact Samsung's technical professionals regarding its availability and for more detailed information.  
<sup>2</sup> Based on internal measurements. When a slimmer pipe, instead of a normal pipe, is used for the Main Liquid Pipe on the same capacity of air conditioning system, the amount of refrigerant to be charged can be reduced by 28 % on average.



# AFI (Advanced Flash Injection) Compressor™

The Samsung AFI Compressor™ combines Flash Injection Technology with a strengthened Triple Profile Wrap and Optimal Discharge Superheat Control technology. It delivers a new level of comfort by maintaining pleasantly cool or warm conditions in every corner of a building all year round.

Flash Injection Technology increases the flow of refrigerant. So, the compressor continues working reliably, improving the heating performance even at low temperatures. Triple Profile Scroll creates a much larger chamber and can withstand higher pressure while rotating reliably at high speed. Combining it with a Dual Magnet Motor, which increases the rotary power, creates the world's largest displacement volume<sup>1</sup>.

Optimal Discharge Superheat (DSH) Control automatically adjusts the degree of discharge superheat to heat more efficiently and effectively compared to the previous generation of DVM S.

Flash Injection Technology

Triple Profile Scroll with Dual Magnet Motor

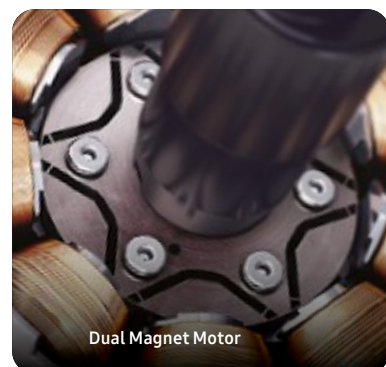
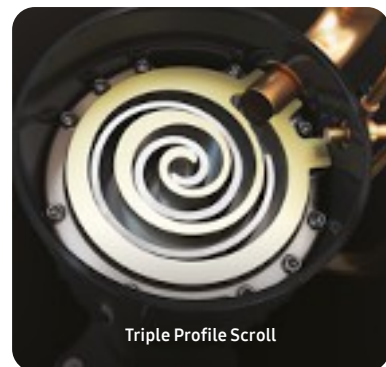
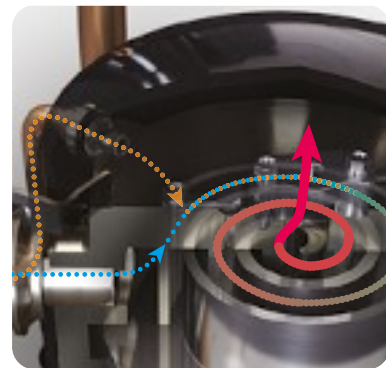
Optimal Discharge Superheat (DSH) Control

Degree of DSH

Outdoor Temperature

Conventional Control

Optimal DSH Control



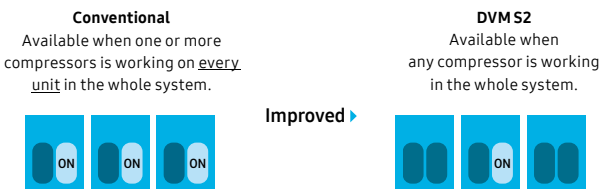
<sup>1</sup> Samsung circulates 14,400 cc/sec refrigerant (= 90 cc (displacement volume) x 160 rps (revolutions per second)), while Company A circulates 12,480cc/sec (= 96cc x 130rps), Company B circulates 14,080cc/sec (= 88cc x 160rps) and Company C circulates 12,320cc/sec (=88cc x 140rps).



# Enhanced Emergency Operation

When the air conditioning system consists of multiple Samsung DVM S2 outdoor units, its refrigerant regulating control technology ensures that you can continue working using only one compressor in an emergency.

So, if every unit except one is not working or getting serviced and any compressor on the remaining one is working properly, it will keep cooling or heating for up to 8 hours. It ensures that you can maintain a comfortable indoor environment until the whole system is functioning properly again.

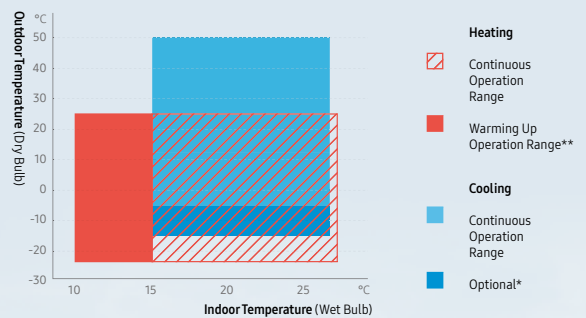


Example Cases of Malfunction	Emergency Operation	
	Conventional	DVM S2
When there are 2 or more units in a system, and one of the two compressors on a unit is not working.	Yes	Yes
When there are 2 or more units in a system, and one of the two compressors on each unit is not working.	Yes	Yes
When there are 2 or more units in a system, and all of the compressors on a unit are not working.	Not Available	Yes
When there are 2 or more units in a system, and a compressor on a low capacity unit is not working.	Not Available	Yes
When there are 2 or more units in a system, and a compressor on another unit are not working.	Not Available	Yes
When there is 1 unit in a system, and one of the two compressors on it is not working.	Not Available	Yes

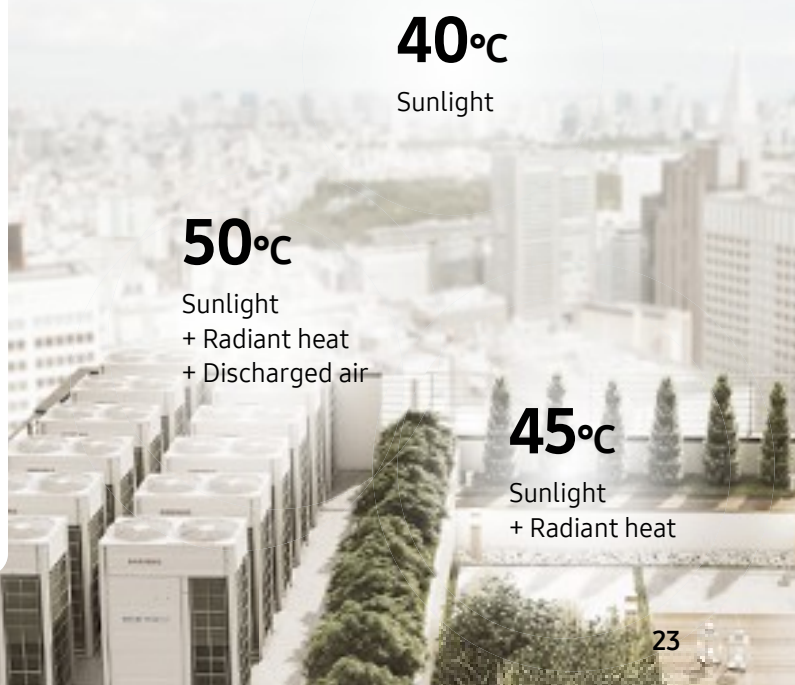
# Stable Performance in a Wide Range of Temperatures

The DVM S2 operates in a wider range of weather conditions, delivering a more stable performance compared to the first generation of DVM S. It operates across a wide temperature spectrum. It can cool during a heat of up to 50 °C and provide warmth during freezing cold conditions of up to -25 °C, ensuring a constant comfortable indoor environment throughout the year.

The wide operating range is particularly helpful as most DVM S2 will be installed on the rooftop of a building. Here the unit is directly exposed to sunlight and the radiant heat of the rooftop as well as to the discharged air of the other outdoor units.

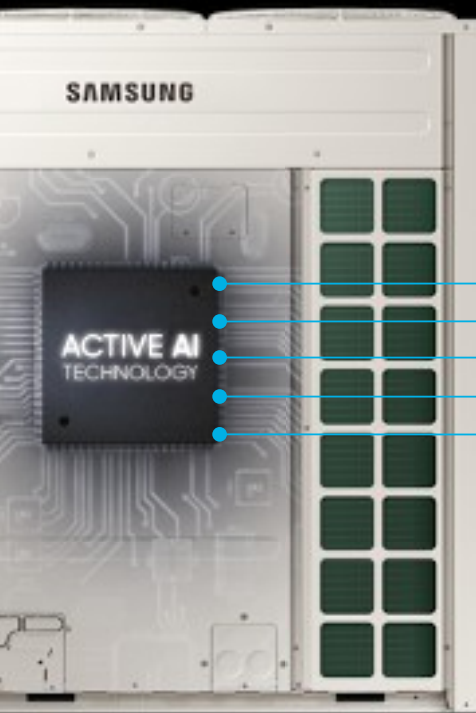







\* When the 'Expand Operational Temperature Range' option is applied; the low limit of the cooling operation range can be expanded from -5°C to -15°C. Only available on HR models and under certain conditions.  
 \*\* If the indoor temperature is lower than 15°C, it can work in heating mode but it cannot operate continuously due to a protection control, delivering thus a more stable performance than the DVM S.



# Active AI

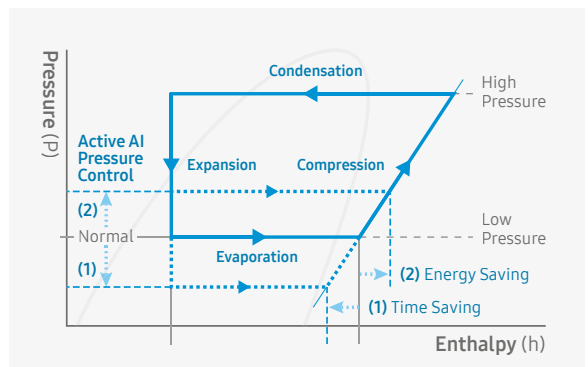
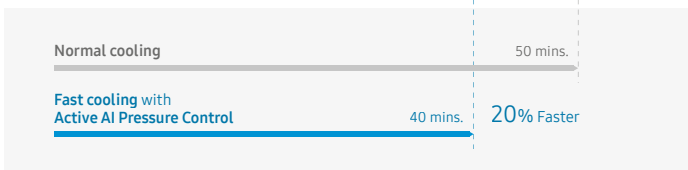
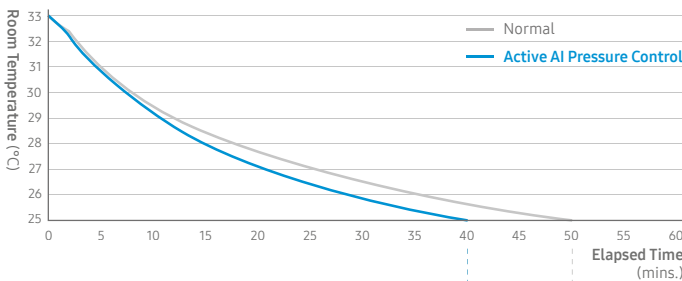
## Active AI Pressure Control



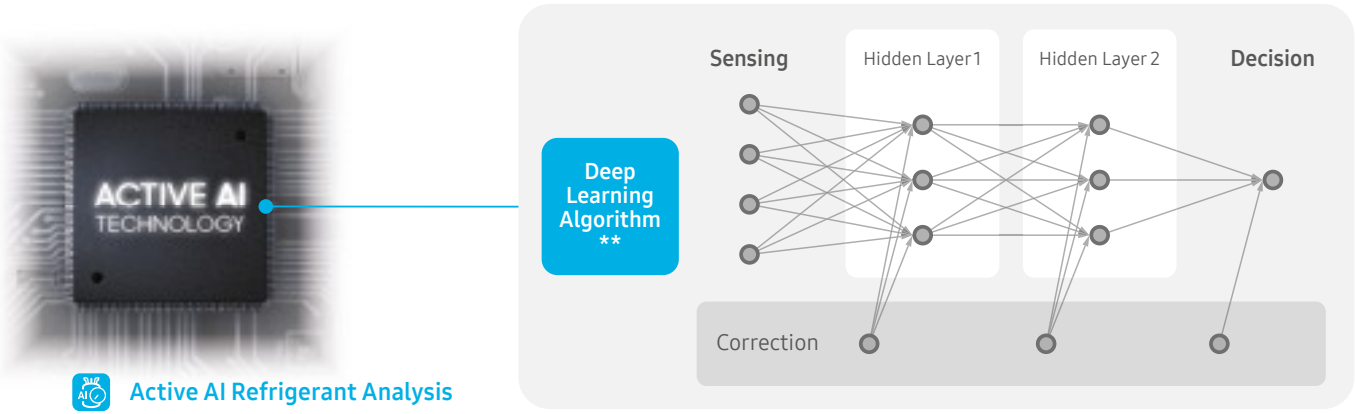
-  Fan speed of Indoor units
-  Number of Indoor units
-  Frequency of simultaneous use
-  Set temp.
-  Room temp.

## Optimal cooling by learning usage patterns

By learning usage patterns from recent cooling operations and the surrounding conditions, the DVM S2 proactively creates the optimal cooling environment to suit users' general requirements. For example: (1) If a user frequently lowers the room temperature when turning on the air conditioner, the Active AI Pressure Control recognizes this pattern. So, when the air conditioner is turned on again, it automatically lowers the pressure of the inflow refrigerant by up to 33% and cools up to 20% faster\*. (2) However, if there's no need for fast cooling, it saves energy by adjusting the refrigerant pressure to be higher than normal.



\* Based on internal testing of the cooling operation, with the temperature set at 22°C and using Auto mode for 4 hours, at a room temperature of 33°C and an external temperature of 35°C. The tested model was an AM080AXVGGH/EU connected to AM083NN4DBH1 and AM145NN4DBH1 indoor units with 25m of piping. The elapsed times were measured when the room temperature reached 25°C.

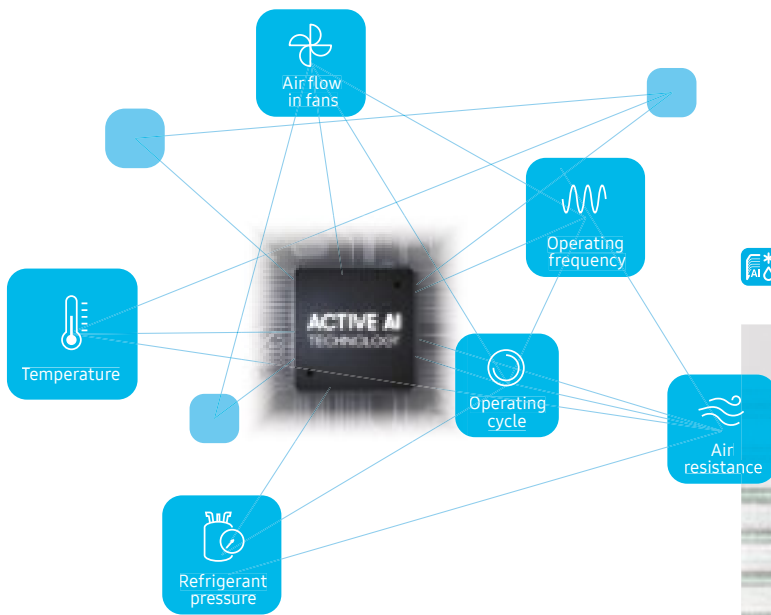


## Maintains the optimal amount of refrigerant to ensure the best performance

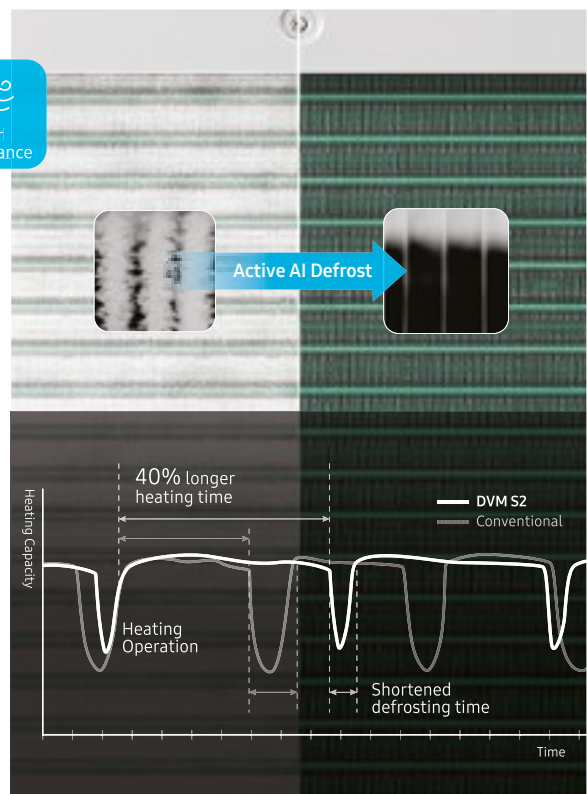
Shortage of refrigerant hinders the outdoor unit's cooling and heating performance as well as its energy efficiency. And, if refrigerant leaks out, due to any error in installation, operation or maintenance, it also impacts global warming and may even cause the system to stop working. Using Deep

Learning technology\*, the Active AI Refrigerant Analysis of the DVM S2 collects and analyzes various operational data in real time, and proactively alerts you with an error message if the amount of refrigerant is too low. So, an installer or a service engineer can maintain the optimal level of refrigerant.

\* A Machine Learning technology that uses an Artificial Neural Network (ANN) to learn like a human using various data.  
 \*\* Based on a research thesis, "A novel hybrid deep neural network model to predict the refrigerant charge amount of heat pumps".



### Active AI Defrost



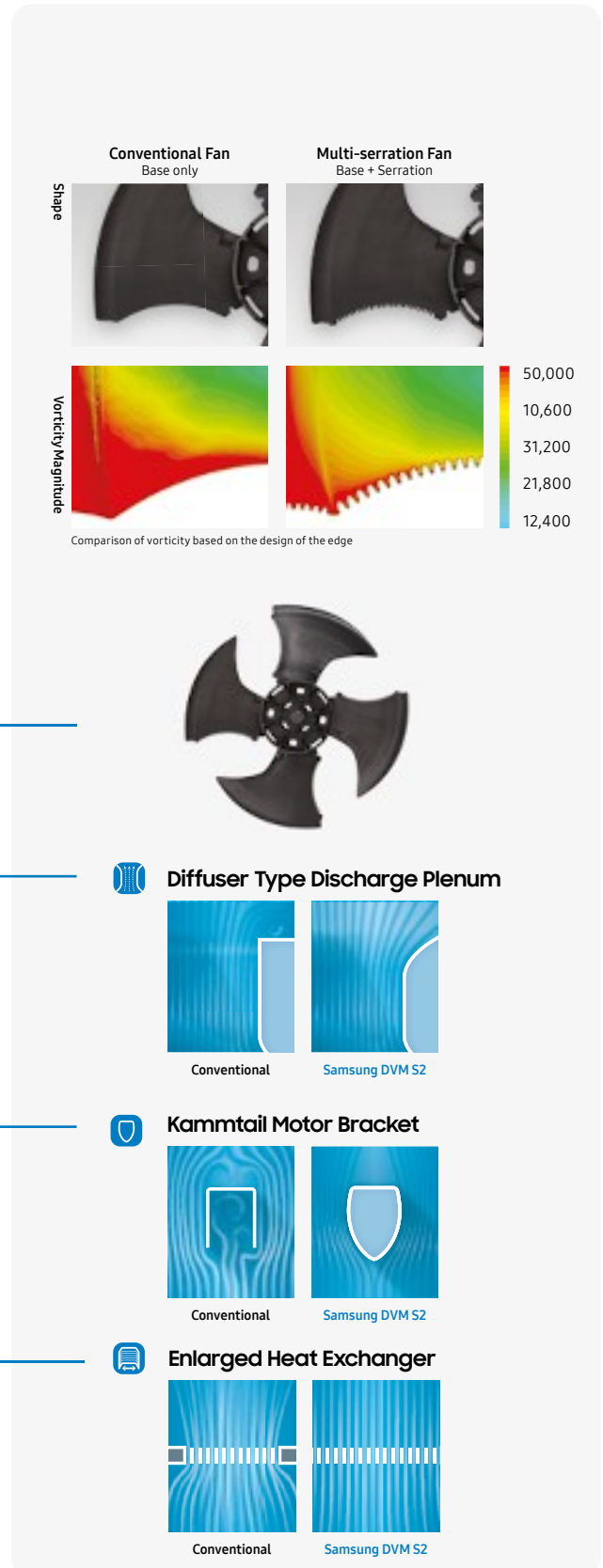
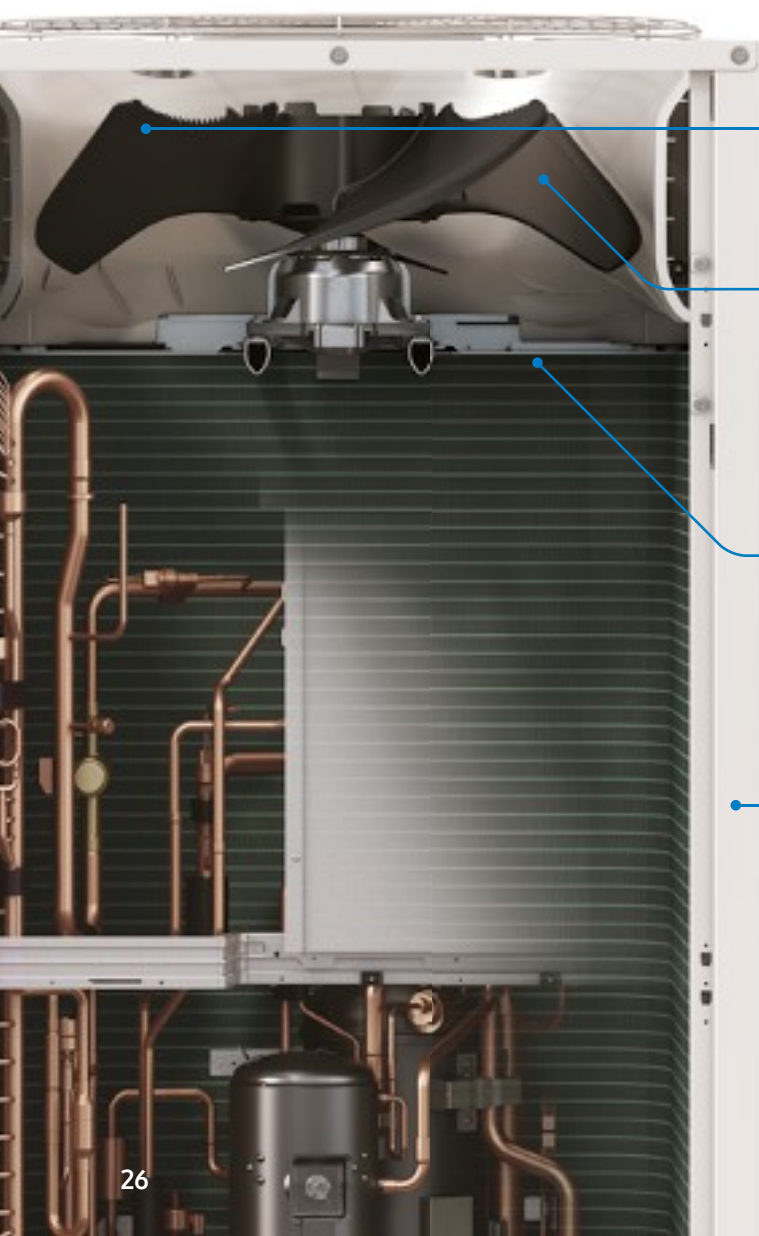
## Heats for longer with less defrosting

The heating operation generally causes ice to build up on outdoor units, which may interfere with the heat exchange process. To remove any ice, air conditioning systems normally pause the heating and run a defrost operation, so the indoor environment feels less comfortable. Samsung's Active AI Defrost technology analyzes various operating data, including the system's air resistance, operating frequency and cycle, so it defrosts more precisely. As a result, it reduces wasted energy and increases the continuous heating time by up to 40%\*.

## Quiet operation: improvements on core elements

The DVM S2 reduces fan noise by minimizing the air vortex due to the unique Multi-serration Fan<sup>1</sup>. In addition, it works quietly and efficiently at night due to its quiet operation feature.

Along with the Multi-serration Fan, the Samsung DVM S2 includes a new range of technologies that support the unit's air flow optimization, namely: the Diffuser Type Discharge Plenum, Kammtail Motor Bracket and the Enlarged Heat Exchanger. Thanks to these technologies the air flows smoothly and quickly, minimizing the turbulence of the air vortex, thus resulting in less noise<sup>2</sup>.



<sup>1</sup> Only available on model of 33.6W or less. The shape of the fan may vary by model and region.

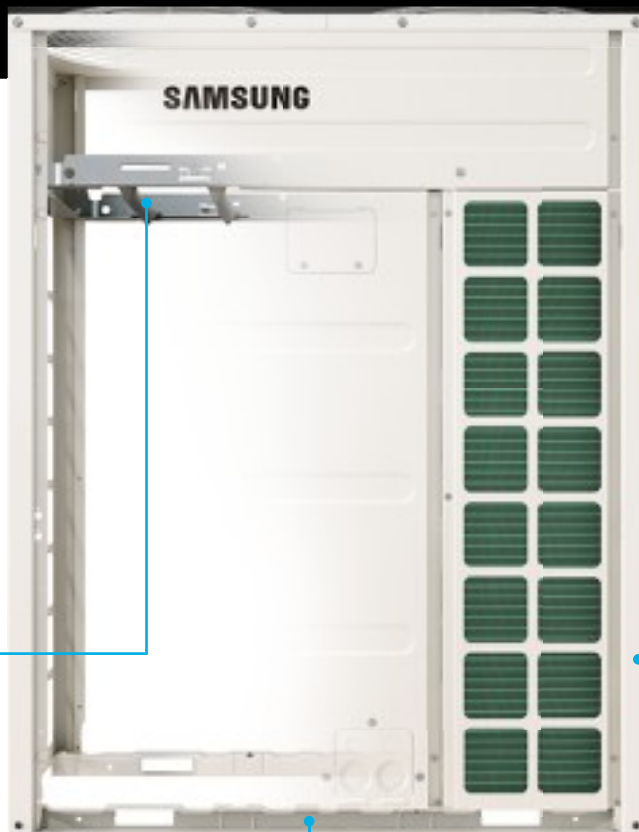

<sup>2</sup> Based on internal testing and stimulation using a fluid dynamics software, Ansys CFX. Results may vary depending on the actual usage conditions.




# Lasting Performance in Challenging Weather Conditions

The Samsung DVM S2 is equipped with the new and innovative design features that are proven to significantly enhance its durability<sup>1</sup>. These include the robust frame, the Kammtail motor bracket and an improved structure of the legs of the unit. In addition, it features anti-corrosion capabilities on the heat


exchanger and chassis, due to the new Durafin™ Ultra fin coating, and the Galvanized Iron Steel Plate casing with a PE powder coating of up to 100µm thickness. These features were proven to ensure a maximum durability in challenging weather conditions.<sup>2</sup>

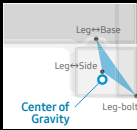
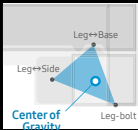



Conventional    DVM S2




**210%**  
More  
Stiffness




Conventional	DVM S2
	

**9%**  
More  
Stiffness



Conventional    DVM S2



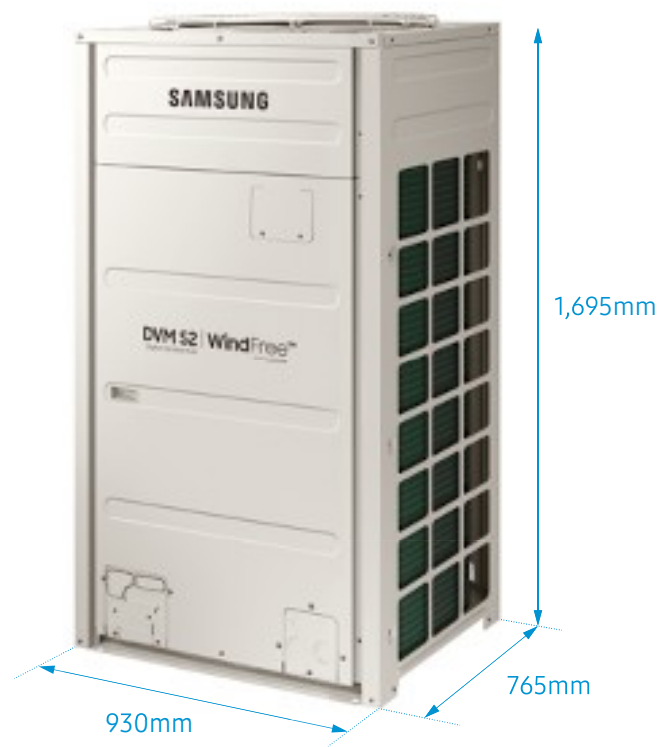
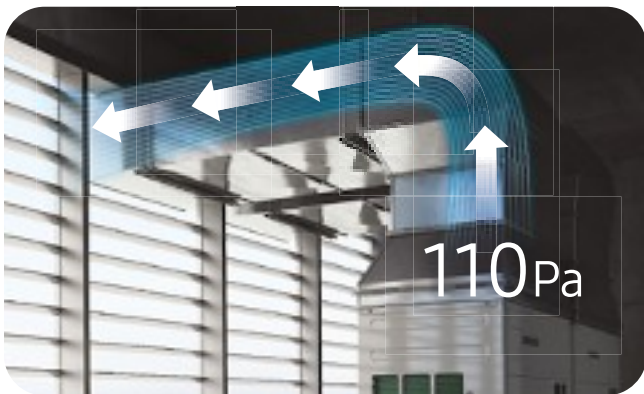
**130%**  
More  
Stiffness

<sup>1</sup> Based on a test in accordance with ICC ES AC156 : 2010 (SDS=2.5g, z/h=1), conducted by SGS Korea Co., Ltd. Result Report No.: SGS-R20-1599-KR00

<sup>2</sup> Based on internal testing using corrosion chambers, Q-FOG and CCT-1100. The Complex Cycle Test (ICCT) includes cycles of spray (for 2 hours at 35 °Celsius), dry (for 4 hours at 60 °C s with 30% Relative Humidity) and damp (for 2 hours at 50 °C with 95% Relative Humidity) conditions. As a result, the Galvanized Iron Steel Plate (GI) formed red rust after 240 hours, which is 43% slower than general Electro-Galvanized Steel Plate (EGI), which forms red rust after 168 hours.

## Extended Installation Flexibility

The Samsung DVM S2 maximizes space without compromising on the quality of its performance. It is 33%<sup>1</sup> smaller compared to the previous DVM S generation. The DVM S2 compact design enables outdoor units to be installed even inside the building. This can be especially important for high-rise buildings. It can result in freeing up valuable amounts of space. The DVM S2 is designed to enhance installation flexibility within the building, due to the 110Pa External Static Pressure<sup>2</sup>. This function effectively discharges air through a longer duct, making it a suitable choice for high-rise buildings.



<sup>1</sup> Based on the AM140AXVAGH/EU, compared to the same capacity models of companies.

<sup>2</sup> May vary by model and depending on the actual condition of the ductwork and installation location. For more detailed information, please contact Samsung's technical professionals.

## Convenient handling



The Samsung DVM S2 is designed to increase convenience with its updated features: the Center Point Indicator of Weight and the Simplified Cover with Handle, making it easier to transfer, install and service, while securing more safety with less effort.

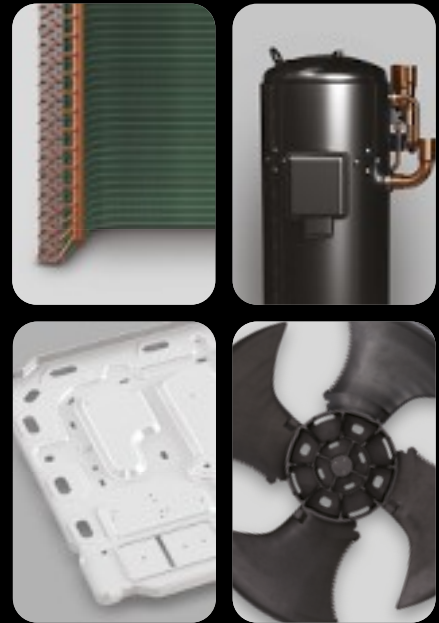
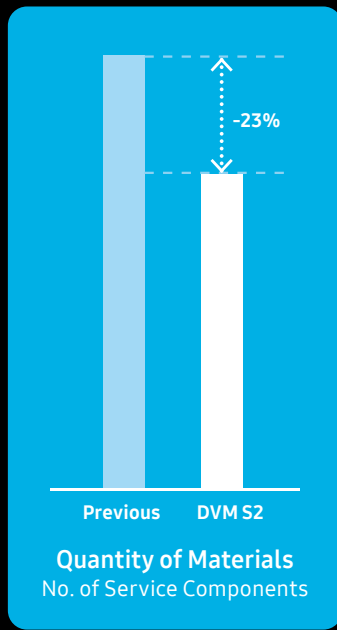
In addition, it includes a service window that can be accessed easily when servicing, without opening the whole cabinet.



# Fewer parts, less effort and cost for service

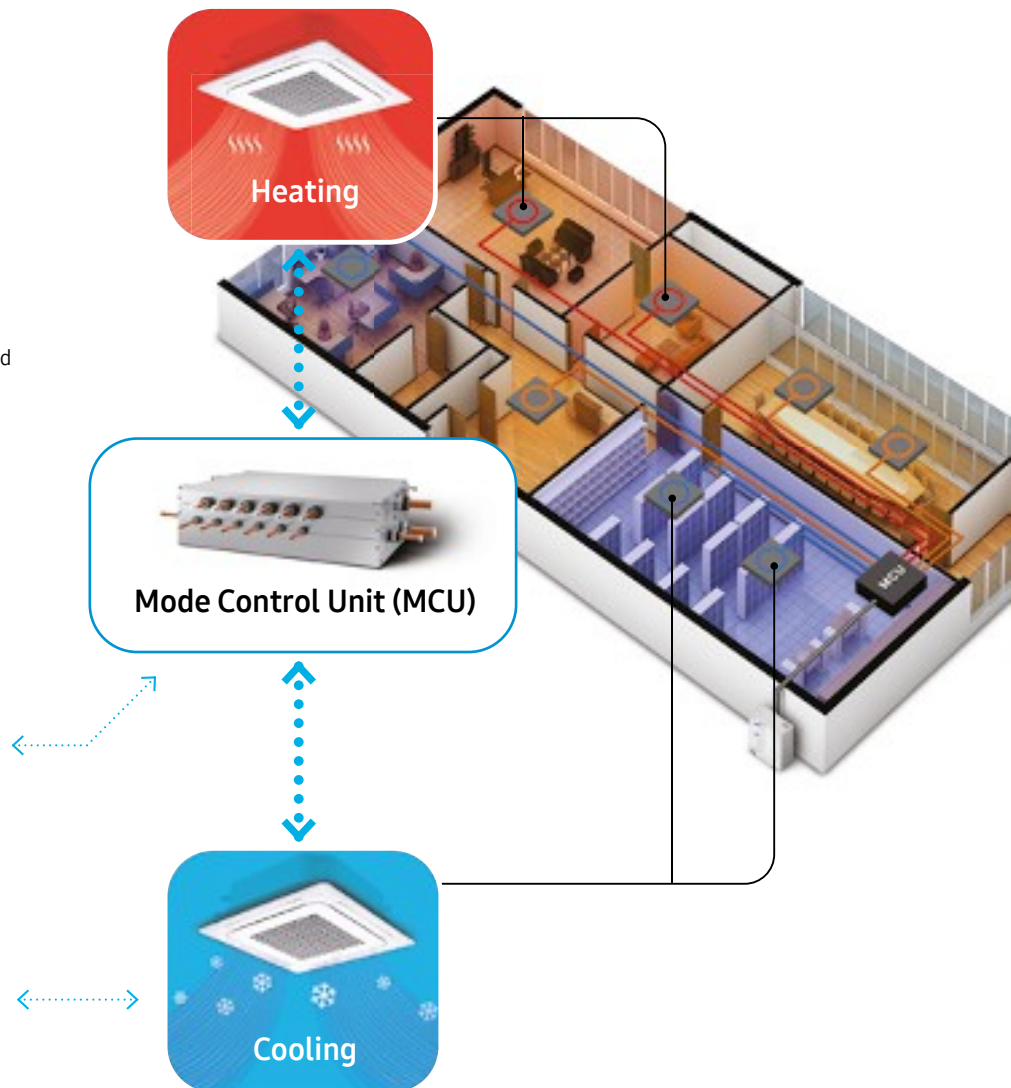
The Samsung DVM S2 consists of optimized modular components that come in fewer parts compared to the previous generation of Samsung's DVM S.

Based on its Quality-based Modular Design (QMD), the DVM S2 is built with high-quality modules that were preselected and preconfigured. It delivers both superior performance and reliability. Additionally, it saves up significant warehouse space, as it does not come in multiple parts.



# Independently Cools and Heats Multiple Spaces

An indoor unit connects to a 3-pipe Heat Recovery outdoor unit, which heats and cools independently using a Mode Control Unit (MCU). MCUs are available in configurations ranging from 1 to 12 ports and can be piped together. This allows for up to 64 indoor unit connections to a single DVM S2 system (where specifications allow).









# DVM S Water

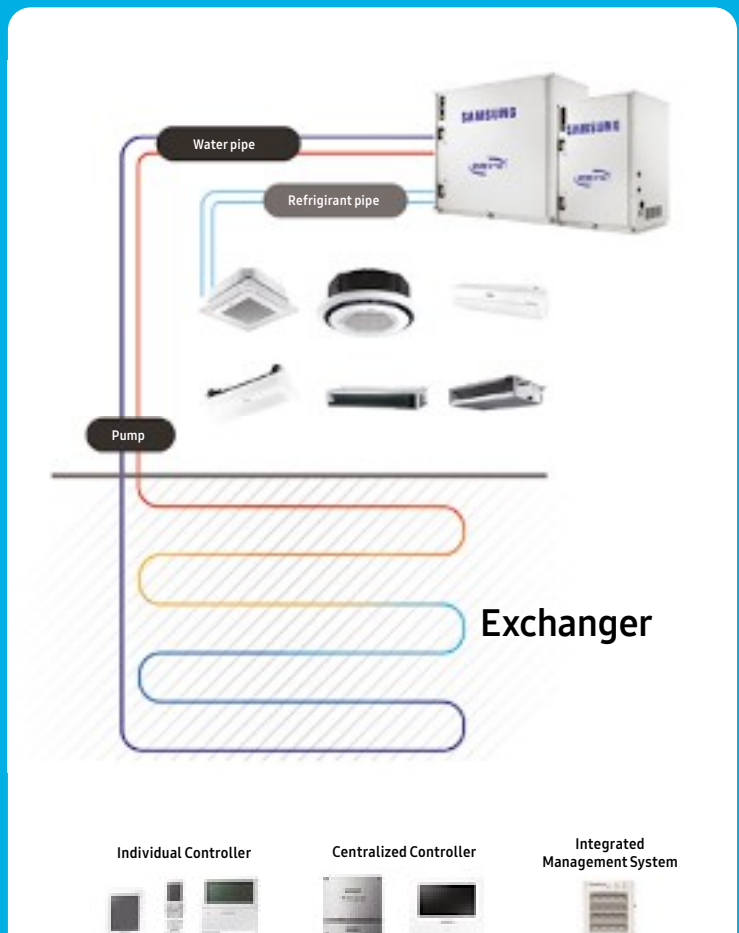
## Optimal Water Flow Controller

The DVM S Water comes with a built-in Water Flow Controller that helps control the amount of water used to cool and heat an outdoor unit. The optimum flow of water is automatically determined by the temperature of the indoor space, making for minimum energy consumption at optimum standards, at reduced costs. And because this feature is standard, there is no need for a separate water flow control kit.



## Geothermal applications

DVM S Water gives an effective and reliable performance using water as a means of heat exchange. It can be connected through a heat exchanger to multiple natural sources like geothermal loops, seawater or lakes.



# DVM S Eco



## High capacity in a compact design

DVM S Eco combines a high capacity up to 12 HP. It is one of the most compact air conditioner units in its class today, making the DVM S Eco very easy and economical to install and operate without compromising on performance. It makes good use of valuable space with a compact design. With a height of just 1210 mm and only 0.318m<sup>2</sup>, its overall volume is 5% less than competing models<sup>1</sup>. It makes it a convenient space-saving option in offices and can be installed easily in a wide range of locations.

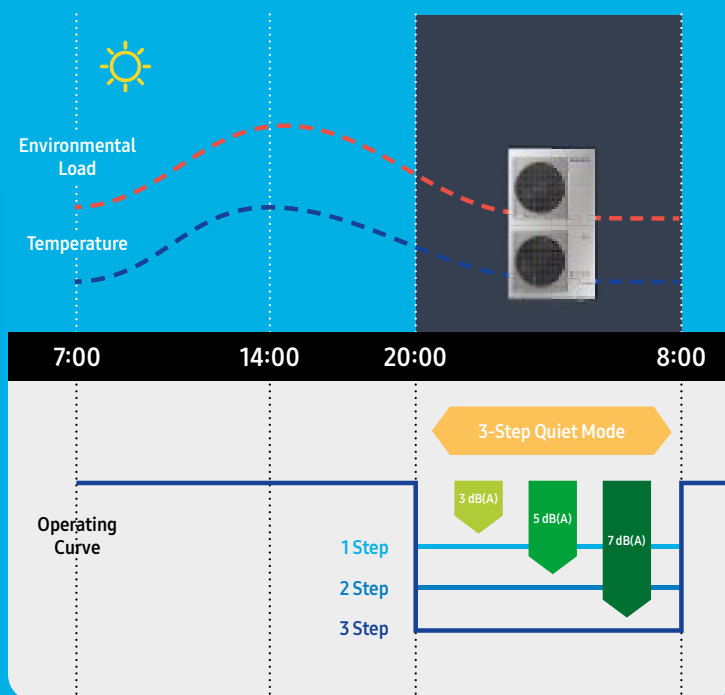
<sup>1</sup> Based on internal testing. Height comparison in 6HP models: Samsung DVM S ECO = 1210mm vs. Model of a competing brand = 1380mm.

## Silent mode

By producing less noise than conventional Samsung models, the DVM S Eco imposes fewer distractions on residential and working environments. Its compact, unimposing design and specially shaped fan blades help reduce sound levels in 3 steps, creating a more pleasant environment.

Additionally, its quiet operation during the night creates a restful environment with a reduced noise level of 3–7 dB(A)<sup>1</sup>.

<sup>1</sup> Based on internal testing comparing silent mode with regular operating mode. Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions. Silent mode is available by option setting.

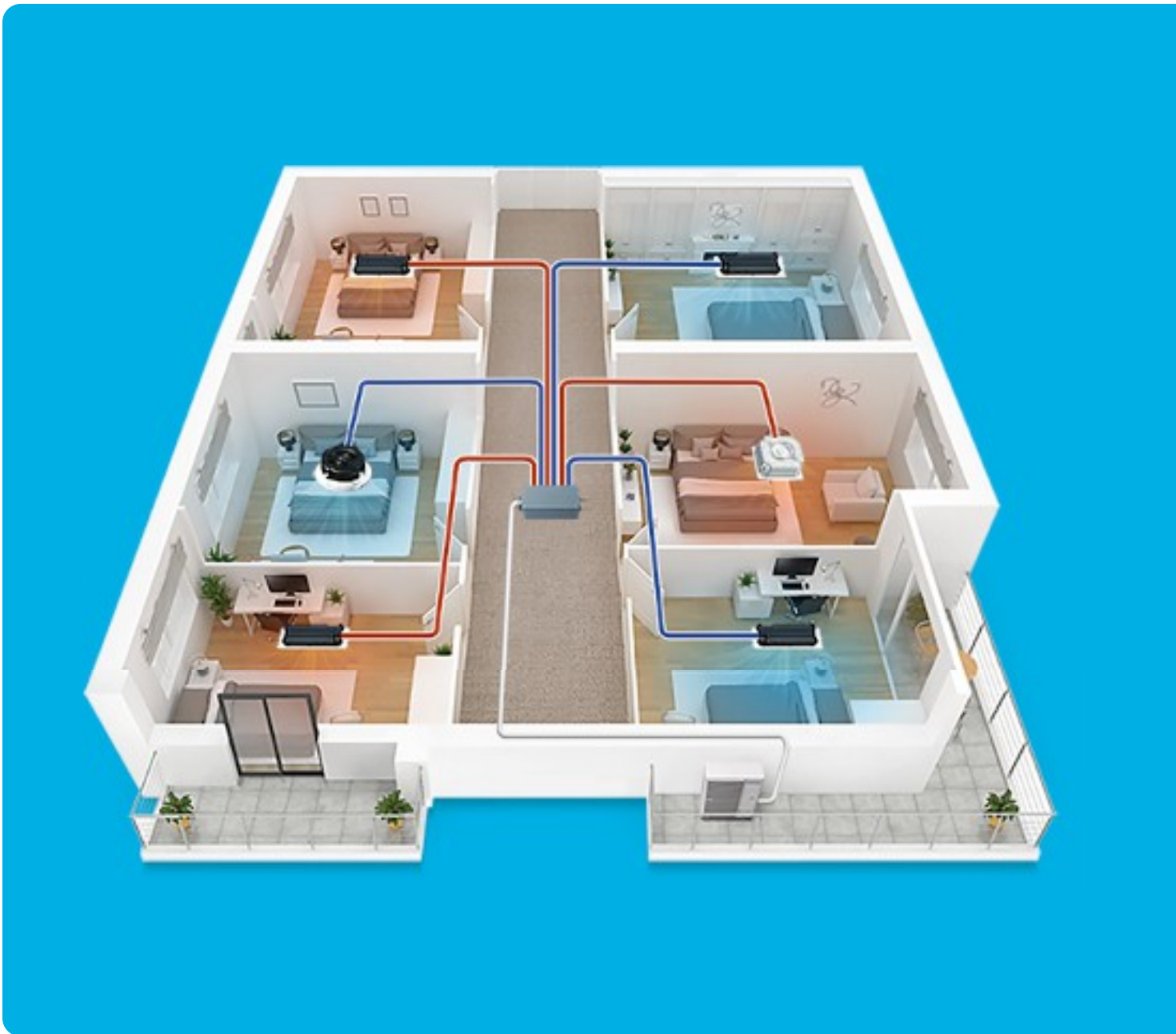


# Heat Recovery for DVM



## Compact Heat Recovery solution

The Heat Recovery (HR) feature for Samsung DVM S ECO and DVM S2 is designed to control temperatures in multiple spaces at once. Optimised for hotels, offices and residential buildings, it can provide cooling and heating for up to 12 indoor units simultaneously. An HR Changer is used to convert a DVM S Eco Heat Pump (4, 5 and 6 HP) to a Heat Recovery (HR) model, which can be connected to a multiport Mode Control Unit (MCU).





# HVM Chiller

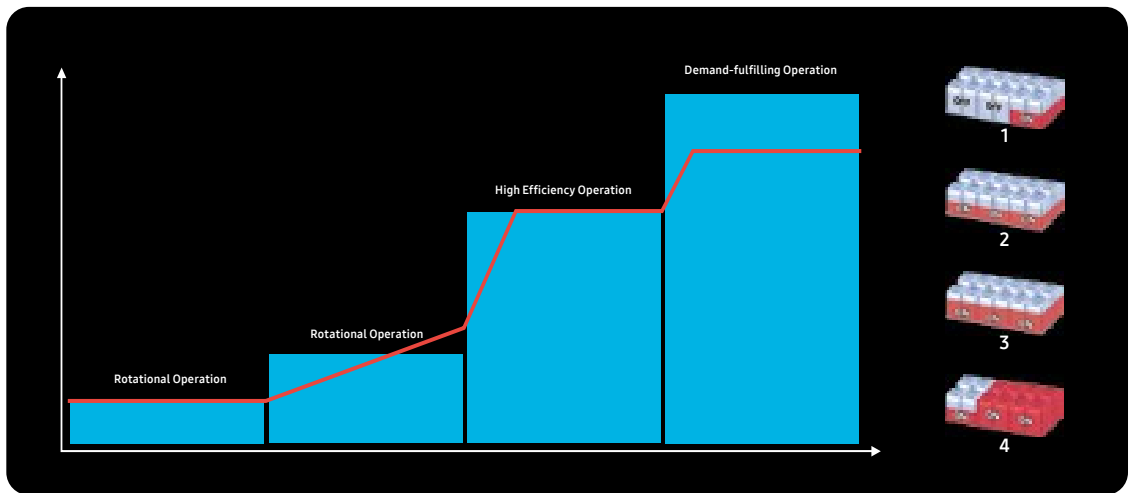


## Modular Function

HVM Chiller heat pump outdoor units are available in three different sizes: 42/56/65 kW. A maximum of 16 outdoor units can be connected to achieve a maximum capacity of 1,040 kW. By connecting multiple units within a single system, the workload is adjusted automatically

for maximum efficiency. The HVM system's water-based concept eliminates the need for refrigerant inside the building, making it safer than traditional VRF systems. Its refrigerant charge is up to 65 % lower<sup>1</sup> than in traditional VRF systems.

<sup>1</sup> Compared to a Samsung DVM S 60 HP, holding R410A refrigerant, connected to twelve 14 kW indoor units and 100 metres of pipes.

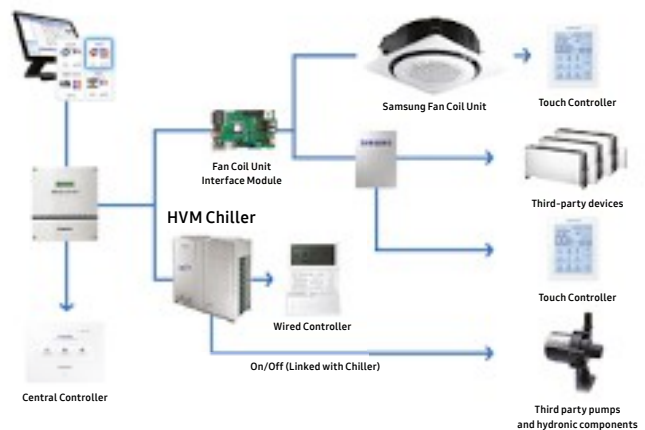


1. At low load, the varying outdoor units are switched on at alternate intervals 2/3. At average load, the outdoor units are operated at partial load to optimise efficiency
4. At maximum load, all compressors of all outdoor units are operated at maximum capacity

## Local and centralised controls

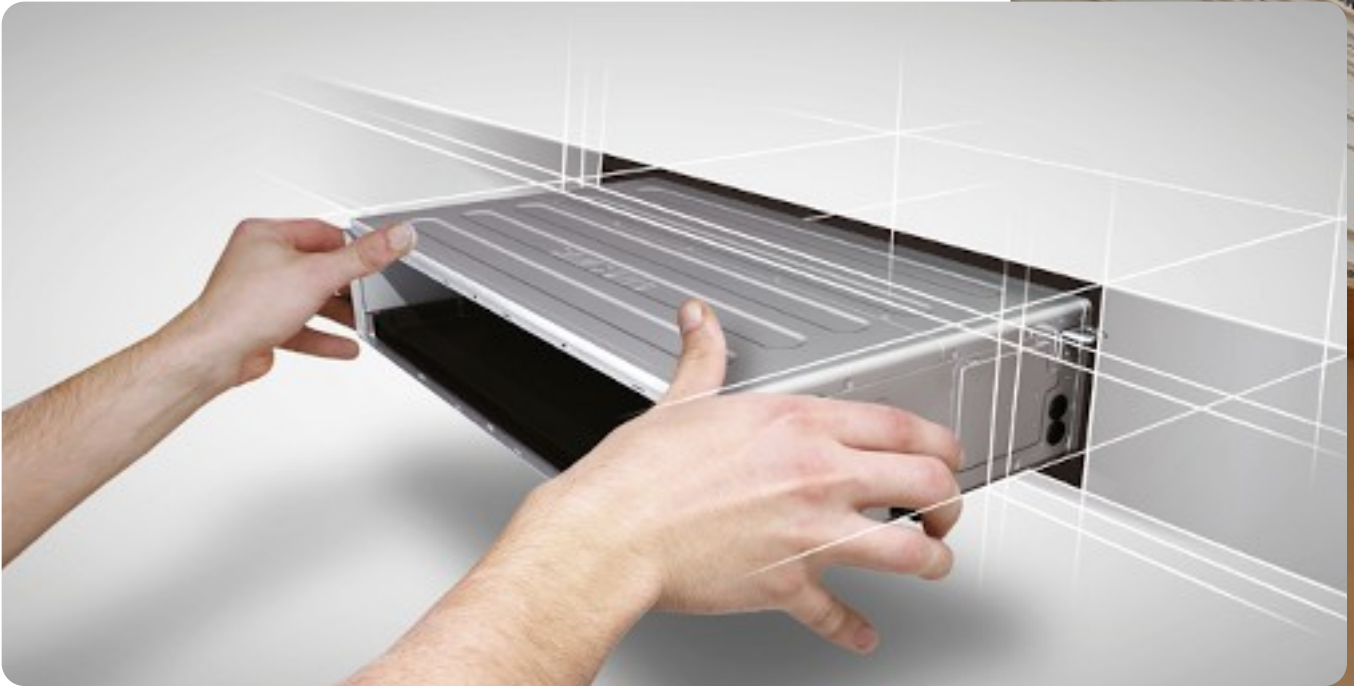
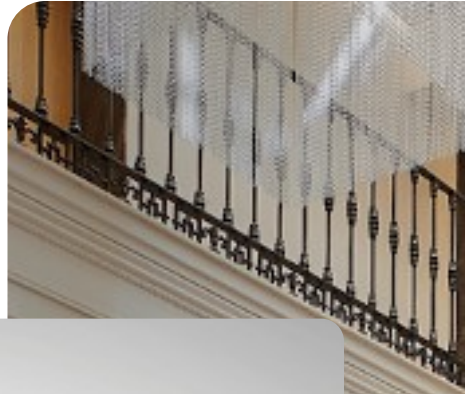
The DVM Chiller utilises the same integrated control systems as a VRF system, and can be connected to a third-party Building Management System (BMS). With the use of the Fan Coil Unit (FCU) kit, third-party indoor units and control systems can also be connected. The Samsung DMS 2.5 makes control and maintenance easy.

### System control



Innovations in detail

# LSP Slim Duct



## Slim design for small ceiling spaces

The Slim Duct S is 200 mm in height, making it much narrower than conventional products. This allows for easy installation and maintenance in all kinds of spaces.<sup>1</sup>

<sup>1</sup> Based on the AM017-071\*NLD\*H/EU

## Built-in check valve<sup>1</sup>

A check valve prevents drained water from flowing back into the drain pan, minimising the water level in the drain pan. This modern design feature means no water stagnation, and prevents drain water overflowing into your interiors.

<sup>1</sup> Based on models AM\*\*\*KNLDEH/EU, AM\*\*\*MNLD\*H/EU







# MSP/HSP Duct S<sup>1</sup>

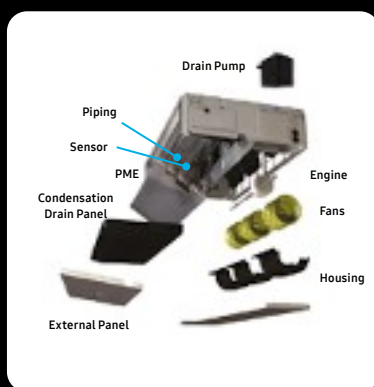
## Easy installation and maintenance

Thanks to their ultra-compact design, Samsung duct units can be placed anywhere. This makes for easy installation and maintenance.

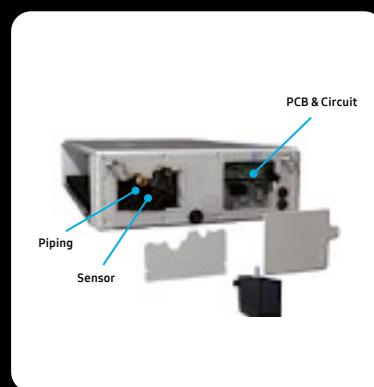
The indoor unit can be accessed from three directions: from the top, bottom and one side, making maintenance simpler than ever.



Accessible from top



Accessible from bottom



Accessible from side

## Installation flexibility and easy maintenance with a lightweight and compact Slim Fit design

The compact and lightweight Slim Fit Design allows you to fit your air conditioner unit into small spaces, thus facilitating its

handling as well as the set up. This means you can now install it in most places within a building with minimum difficulty.



<sup>1</sup>Based on model AM\*\*\*AN\*PKH/EU





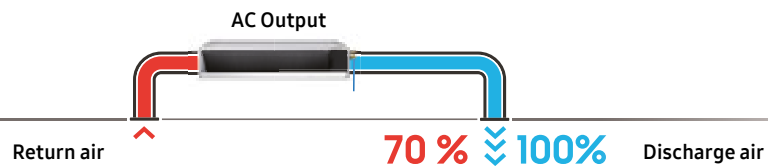
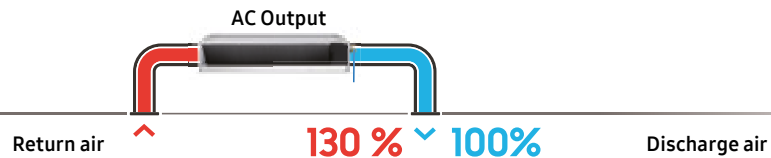
## Indoor discharge temperature

Each ducted indoor unit, or Air Handling Unit (AHU) kit, boosts discharge air temperature control function that offers greater comfort without the need to change the outdoor unit setting. Cooling and heating options can be selected using a remote control, and this applies to all ducted/AHU connected systems.

## Automatic External Static Pressure (ESP) setting

The automatic operation of the external static pressure feature is very simple to set up. This auto setting enables you to choose the optimal operating range for the fan. The result is the greatest possible comfort with an optimal balance

between sound level and capacity. Please contact your Samsung representative to find out which indoor units feature this function.



# Airzone



## Integrated Zoning Solution

Airzone provides centralised control and improvement in energy performance to Samsung ducted applications. This third party solution offers the possibility to control the temperature of up to 8 zones or rooms separately. The Airzone plenum with dampers determines the required airflow to each room to meet the desired temperature.

Airzone's multiple zoning control solution can be easily connected to Samsung's ducted systems and allows for a reduction in maintenance operations and refrigerant charge compared to installing separate AC units for each zone. Unlike other third party solutions, Airzone uses Samsung's communication protocol to control the needed airflow. If there is no demand, the indoor unit is stopped. This avoids unwanted operation; therefore increases the energy efficiency of the system.

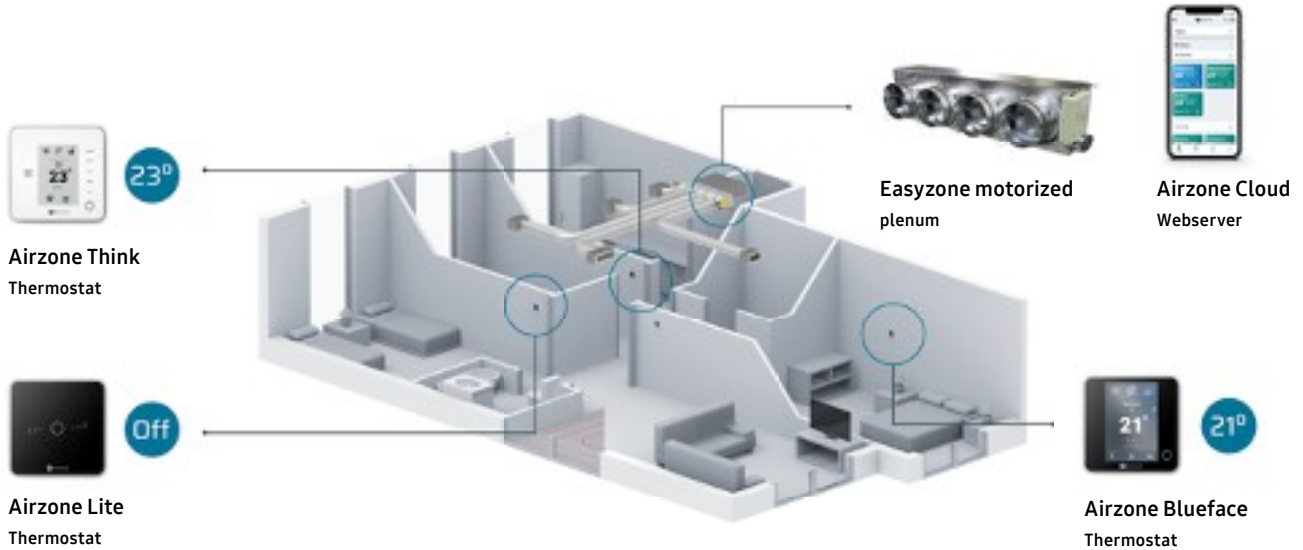
## Flexibility and Smart Operation

The integrated zoning system from Airzone with smart control allows for optimized energy efficiency, as temperatures in the different zones can be independently

controlled. This translates into energy efficiency since the AC unit will not unnecessarily cool or heat unoccupied zones.

Each damper is controlled by an Airzone room controller either wired or wireless. In addition, Airzone also allows controlling the room temperature remotely with the Airzone Cloud App<sup>1</sup>, Google Assistant<sup>2,3</sup> and Amazon Alexa<sup>2,4</sup>.





- <sup>1</sup> Available for iOS and Android
- <sup>2</sup> Voice control is supported by AI speakers; Google Assistant (Google Home) and Amazon Alexa
- <sup>3</sup> Google Assistant is not available in certain languages and countries. Google is a trademark of Google LLC
- <sup>4</sup> Airzone is not compatible with SmartThings and SmartThings App



## Airzone<sup>5</sup> compatible models

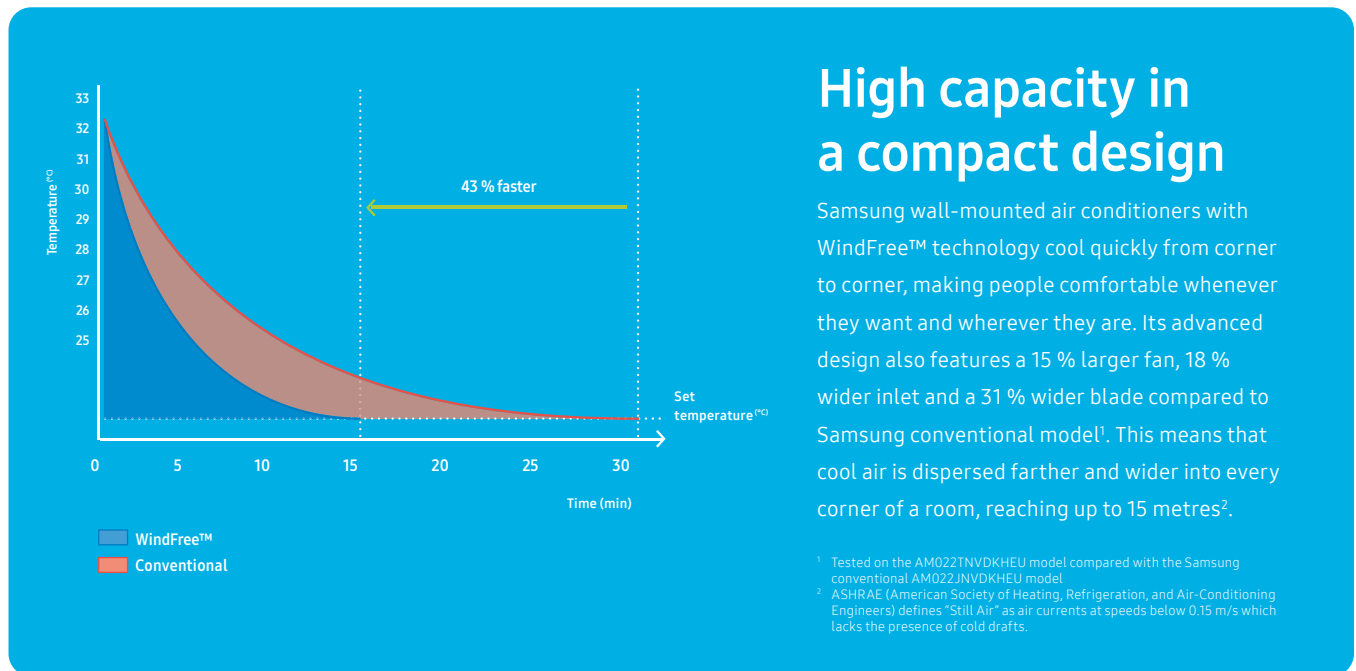
Product Group	Samsung Model Code	Detail	Dimensions (W×H×D)	3 Port	4 Port	5 Port	6 Port	8 Port
DVM	AM017ANLDKH/EU	DUCT LSP 1.7kW	700×199×440	AZEZ8SAMSL03S3				
DVM	AM022ANLDKH/EU	DUCT LSP 2.2kW	700×199×440	AZEZ8SAMSL03S3				
DVM	AM028ANLDKH/EU	DUCT LSP 2.8kW	700×199×440	AZEZ8SAMSL03S3				
DVM	AM036ANLDKH/EU	DUCT LSP 3.6kW	700×199×440	AZEZ8SAMSL03S3				
DVM	AM045ANLDKH/EU	DUCT LSP 4.5kW	700×199×440		AZEZ8SAMSL03M4			
DVM	AM056ANLDKH/EU	DUCT LSP 5.6kW	700×199×440		AZEZ8SAMSL03M4			
DVM	AM071ANLDKH/EU	DUCT LSP 7.1kW	1100×199×440			AZEZ8SAMSL03L5		
DVM	AM090ANLDKH/EU	DUCT LSP 9kW	1300×295×690			AZEZ8SAMST04L5	AZEZ8SAMST04L6	AZEZ8SAMST04L8
DVM	AM112ANLDKH/EU	DUCT LSP 11.2kW	1300×295×690			AZEZ8SAMST04L5	AZEZ8SAMST04L6	AZEZ8SAMST04L8
DVM	AM128ANLDKH/EU	DUCT LSP 12.8kW	1300×295×690					AZEZ8SAMST04XL8
DVM	AM140ANLDKH/EU	DUCT LSP 14kW	1300×295×690					AZEZ8SAMST04XL8
DVM	AM017KNLDEH/EU	DUCT LSP 1.7kW	700×199×440	AZEZ8SAMSL03S3				
DVM	AM022KNLDEH/EU	DUCT LSP 2.2kW	700×199×440	AZEZ8SAMSL03S3				
DVM	AM028KNLDEH/EU	DUCT LSP 2.8kW	700×199×440	AZEZ8SAMSL03S3				
DVM	AM036KNLDEH/EU	DUCT LSP 3.6kW	700×199×440	AZEZ8SAMSL03S3				
DVM	AM045MNLDEH/EU	DUCT LSP 4.5kW	700×199×440		AZEZ8SAMSL03M4			
DVM	AM056MNLDEH/EU	DUCT LSP 5.6kW	700×199×440		AZEZ8SAMSL03M4			
DVM	AM071MNLDEH/EU	DUCT LSP 7.1kW	1100×199×440			AZEZ8SAMSL03L5		
DVM	AM090MNLDEH/EU	DUCT LSP 9kW	1300×295×690			AZEZ8SAMST04L5	AZEZ8SAMST04L6	AZEZ8SAMST04L8
DVM	AM112MNLDEH/EU	DUCT LSP 11.2kW	1300×295×690			AZEZ8SAMST04L5	AZEZ8SAMST04L6	AZEZ8SAMST04L8
DVM	AM128MNLDEH/EU	DUCT LSP 12.8kW	1300×295×690					AZEZ8SAMST04XL8
DVM	AM140MNLDEH/EU	DUCT LSP 14kW	1300×295×690					AZEZ8SAMST04XL8
DVM	AM022ANMPKH/EU	DUCT MSP 2.2kW	850×250×700	AZEZ8SAMST06XS3				
DVM	AM028ANMPKH/EU	DUCT MSP 2.8kW	850×250×700	AZEZ8SAMST06XS3				
DVM	AM036ANMPKH/EU	DUCT MSP 3.6kW	850×250×700	AZEZ8SAMST06S3	AZEZ8SAMST06S4			
DVM	AM045ANMPKH/EU	DUCT MSP 4.5kW	850×250×700	AZEZ8SAMST06S3	AZEZ8SAMST06S4			
DVM	AM056ANMPKH/EU	DUCT MSP 5.6kW	850×250×700	AZEZ8SAMST06S3	AZEZ8SAMST06S4			
DVM	AM071ANMPKH/EU	DUCT MSP 7.1kW	850×250×700	AZEZ8SAMST06M3	AZEZ8SAMST06M4	AZEZ8SAMST06M5	AZEZ8SAMST06M6	
DVM	AM090ANMPKH/EU	DUCT MSP 9kW	1200×250×700			AZEZ8SAMST06L5	AZEZ8SAMST06L6	AZEZ8SAMST06L8
DVM	AM112ANMPKH/EU	DUCT MSP 11.2kW	1300×300×700					AZEZ8SAMST06XL8
DVM	AM128ANMPKH/EU	DUCT MSP 12.8kW	1300×300×700					AZEZ8SAMST06XL8
DVM	AM140ANMPKH/EU	DUCT MSP 14kW	1300×300×700					AZEZ8SAMST06XL8

### Communication gateway for all models: AZX6GTCSA2

<sup>5</sup> Airzone is a third party and not part of Samsung. Airzone Plenum with damper, wired & wireless thermostats and gateway, can be purchased directly from Airzone website: <https://www.airzonecontrol.com/> or contacting the Airzone sales team at [marketing@airzonecontrol.com](mailto:marketing@airzonecontrol.com)

# WindFree™ Deluxe

UNIQUE



## Easy Installation and Servicing

The WindFree™ wall-mounted air conditioner features a snap-fit bottom cover that can be easily opened and closed. There are two screw points which allows for convenient installation and servicing. Unlike conventional brackets that can be fitted on two fixed hooks, the unit uses a roller type bracket that simplifies the installation process. This makes it easy to mount by installing the bracket on the wall and sliding it effortlessly into the exact position you want.



Samsung's roller type bracket makes mounting the unit much easier. Simply hang it on the unit and find the best place to install it by sliding the bracket from side to side.

Assembled parts (6)/  
Screw points (5)

Installation time<sup>1</sup>:  
**9.3 min**

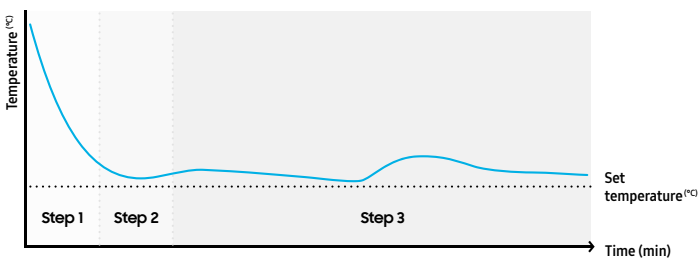
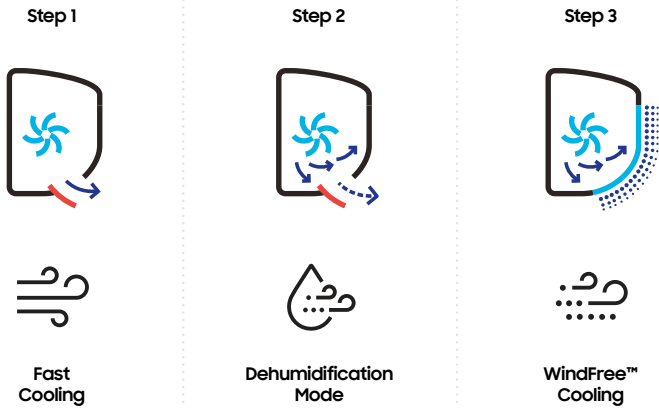
**45%** ↓

Assembled parts (3)/  
Screw points (2)

Installation time<sup>1</sup>:  
**5.1 min**

<sup>1</sup> Tested on the AM022TNVDKHEU model compared with the Samsung conventional AM022JNVKHEU model under specific conditions and may vary on specific factors





# WindFree™ Cooling mode

WindFree™ Cooling mode keeps the room comfortably cool. It cools gently and quietly, dispersing air through 23,000 micro-holes so that people do not have to deal with the unpleasant feeling of a cold draft on their skin. This results in a “Still Air” environment<sup>1</sup> with a very low air speed and limited noise<sup>2</sup>. The advanced airflow structure of this mode also means that it cools a wider and larger area more evenly. And it consumes 77 % less energy than Fast Cooling mode<sup>3</sup>, so people can stay comfortably cool while reducing energy costs.

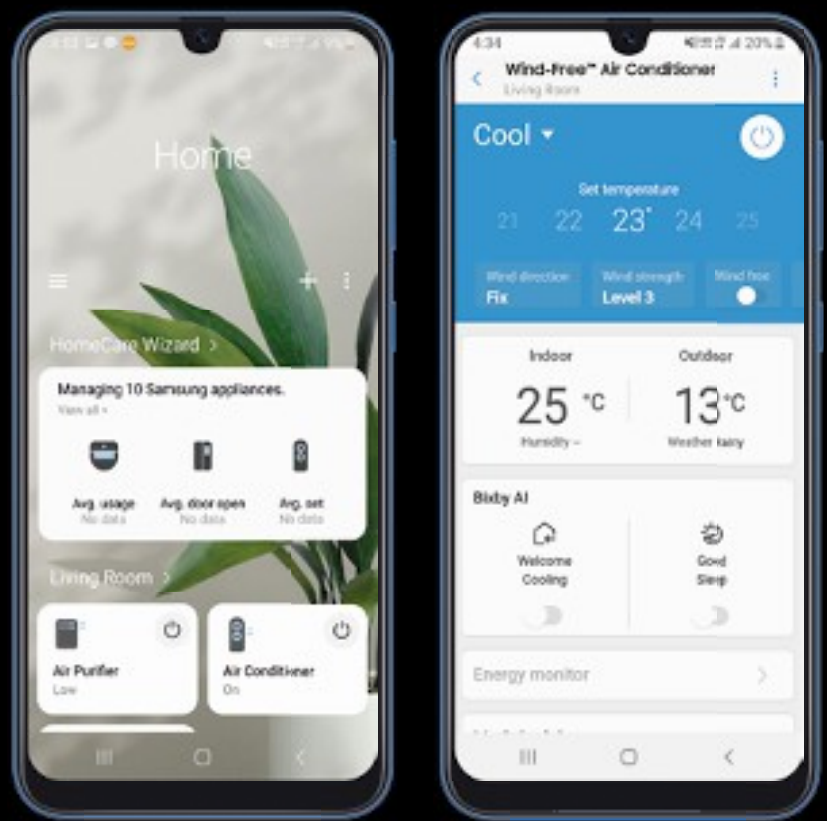
<sup>1</sup> ASHRAE (the American Society of Heating, Refrigerating, and Air-Conditioning Engineers) defines “Still Air” as air currents moving at speeds below 0.15 m/s, with no cold drafts.  
<sup>2</sup> Tested on the AR12TXCAAWKNEU model in an anechoic environment. WindFree™ mode generates 23 dB(A) of noise, compared to 26 dB(A) produced by the conventional Samsung model. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions.  
<sup>3</sup> Tested on the AR12TVEAAWKNP model under specific testing conditions, based on the power consumption of Fast Cooling mode vs. WindFree™ Cooling mode.



## Smart Control

Control the temperature in any room, anytime and anywhere. Temperatures can be managed remotely using the SmartThings App<sup>1</sup>. With just a simple touch you can turn it on and off, select the cooling mode, schedule its operation and group devices. With the optional Wi-Fi Kit, the different aspects of the system with up to 16 connectible indoor units can be controlled via smartphone.

<sup>1</sup> A Wi-Fi connection and Samsung SmartThings application account are required. Wi-Fi Kit to be ordered separately. Requires iOS 10.0 or later & Android 5.0 or later. Additional requirements may be needed to apply SmartThings for medium-sized to large commercial buildings. For details contact a Samsung representative.



Not all features are available for all models.

# WindFree™ 4-Way Cassette

UNIQUE

## WindFree™ Technology

The WindFree™ 4-Way Cassette directs air through 15,700 micro-holes in the panel, while the WindFree™ 4-Way 600 x 600 Cassette directs air through 9,000 micro-holes in the panel. These micro-holes are essential for creating a type of airflow called “Still Air”<sup>1</sup> which cools the room gradually and noticeably without drafts.

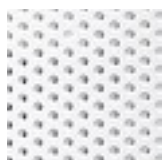
The WindFree™ 4-Way Cassette is now available in FCU.

<sup>1</sup> ASHRAE (American Society of Heating, Refrigeration, and Air-Conditioning Engineers) defines “Still Air” as air currents at speeds below 0.15 m/s which lacks the presence of cold drafts.



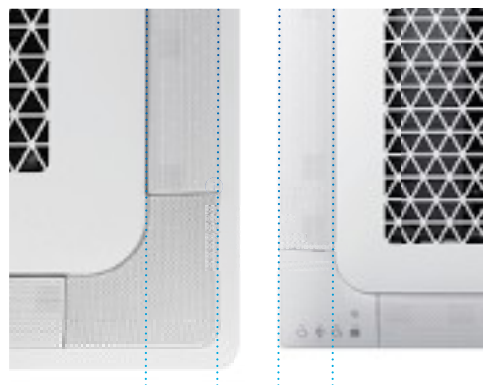
WindFree™  
4-Way 600 x 600 Cassette

9,000 micro-holes



WindFree™  
4-Way Cassette

15,700 micro-holes



|←→|  
84mm

|←→|  
66mm

## Optimised blades

The larger optimised blades<sup>1</sup> (84 mm WindFree™ 4-Way Cassette, 66 mm WindFree™ 4-Way 600 x 600 Cassette) facilitate a wider cooling range and improved air circulation within the room. This advanced technology also cools the space much faster leaving no zone untouched. These blades are detachable and can be washed easily with water to remove dust or debris that has collected on them, therefore allowing for optimal quality of airflow that in turn helps maintain a cleaner environment.

<sup>1</sup> Samsung testing compares the WindFree™ 4-Way and WindFree™ 4-Way 600 x 600 Cassette to a previous 4-Way Cassette type air conditioner.

# Smart Comfort Operation

The WindFree™ 4-Way Cassette and the WindFree™ 4-Way 600 x 600 Cassette boosts Smart Comfort Operation. The Fast Cooling process helps to achieve the desired temperature in a room quickly. By simultaneously detecting the humidity levels, the Smart Comfort Operation feature maintains the room's temperature automatically.



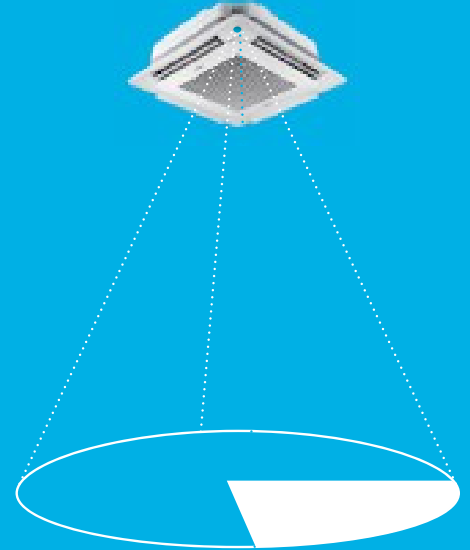
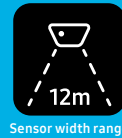
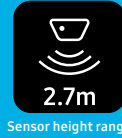
 **Fast Cooling**  
↓



 **WindFree™ Cooling**

# Motion Detect Sensor (optional)

The improved Motion Detect Sensor (MDS) detects the presence and location of people in the room, enabling automatic management of airflow direction and efficient air cooling.



# Auto Elevation Panel

The cleaning of filters is also an integral part of maintaining good indoor air quality, and elevation panels can make this process easier.

An Auto Elevation Panel is a panel that provides quick and comfortable access to dust filters for cleaning, facilitating extra convenience with the 4 metre<sup>1</sup> elevation advantage with a single remote click. Thus, a ladder is no longer required when cleaning panels. This makes it easier and safer for end users or service engineers to access filters for cleaning.

<sup>1</sup> May vary based on the actual usage conditions.



Not all features are available for all models.

## Air Purification Panel

The Air Purification Panels in the WindFree™ 4-Way Cassette contain two types of filters to enhance the mitigation of certain Particulate Matter (PM), aimed to keep the indoor air cleaner all day long. The WindFree™ 4-Way Cassette is made of a two filter purification system the Pre-Filter and the PM1.0 Filter. The Pre-Filter captures larger dust particles, stopping them from entering the air conditioning unit.

The PM1.0 Filter<sup>1</sup> not only effectively captures ultrafine dust upto 0.3 µm but also inactivates certain types of bacteria that are captured, using an electrostatic precipitator. It has two main parts that charge and collect certain types of dust and bacteria<sup>1</sup>. The brush discharger generates negative ions. And these give certain dust particles and bacteria<sup>1</sup> a negative charge, so they become strongly attached to the ground electrode due to the electrostatic force of the collector. An added advantage is that this filter is also semi washable, thus saving the purchase and maintenance cost of replacing the filter.

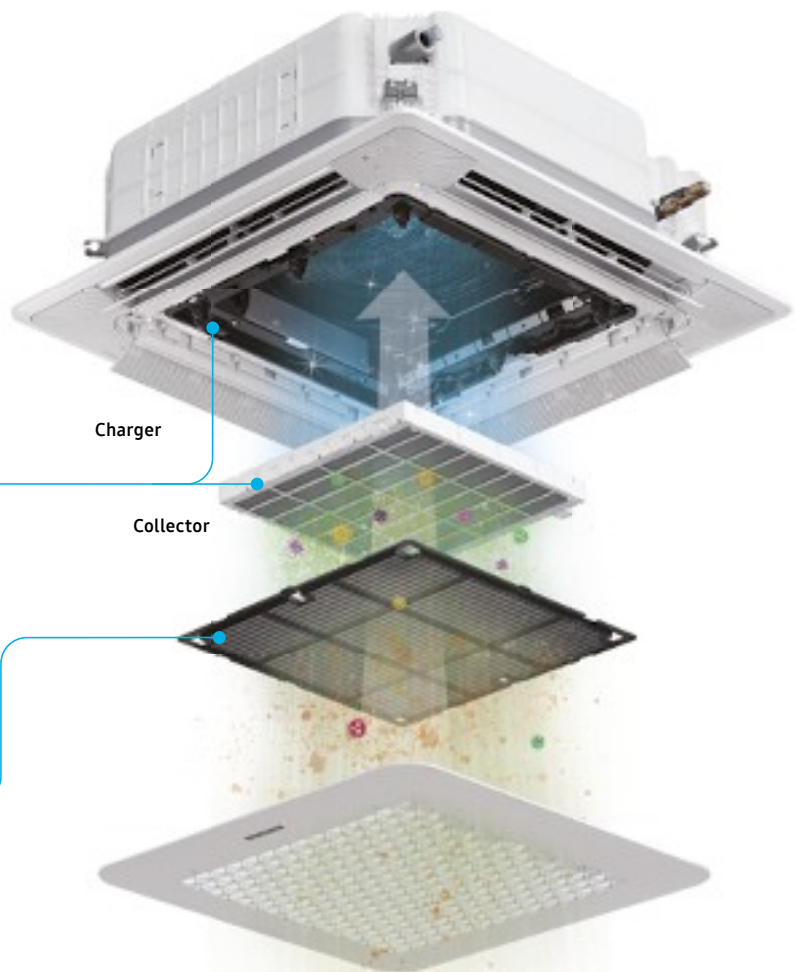
**intertek**  
Total Quality. Assured.



PM1.0 Filter



Pre-Filter



<sup>1</sup> Intertek Report No.: RT20E-S0010-R Date: APR. 17, 2020 (Revised) Based on the data collected the Hypothesis is accepted: The K-element (Electrostatic Precipitator) of Samsung Electronics can sterilize the certain types of bacteria that collected on the filter. (Escherichia coli : above 99 %, Staphylococcus aureus : above 99 %)

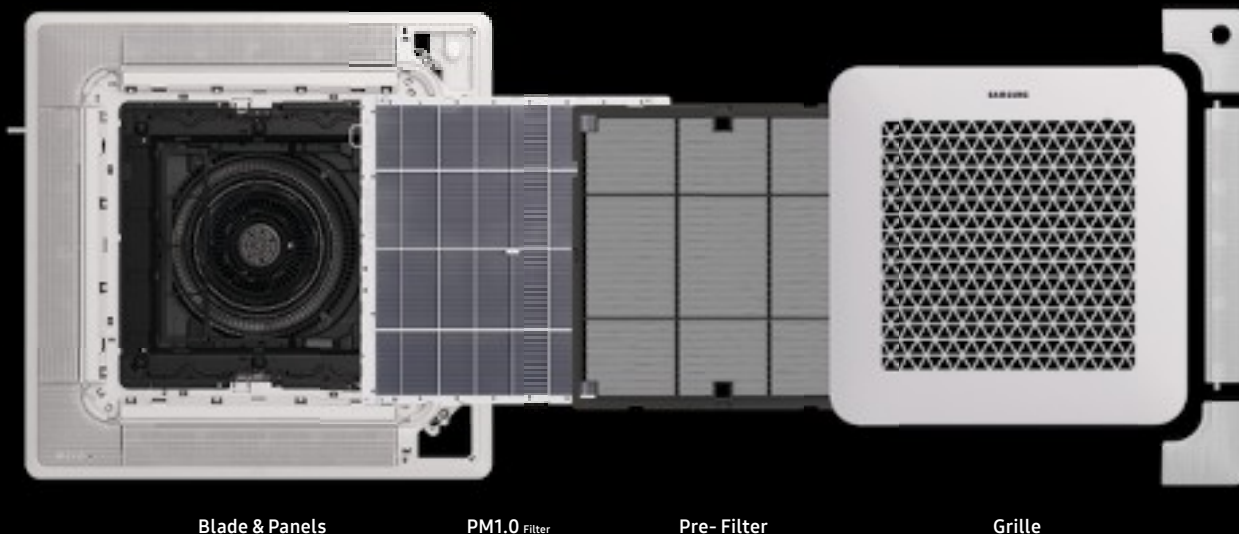


## Detachable Washable Parts

The cleanliness of the exterior, as well as the filters, is very important for 4-Way Cassettes that are widely used in commercial spaces. The panels and filters of the WindFree™ 4-Way Cassette are very

easy to remove and clean. One can pull the hook inside the panel grille (near the Samsung logo) to open and remove it. And the corner panels and blades can be easily separated when pulled downwards. All of

the exterior parts can be cleaned with a soft brush or cloth. You can also use a vacuum or water to clean the internal filter, so you don't need to keep purchasing new filters.



Blade & Panels

PM1.0 Filter

Pre-Filter

Grille

## Self-Diagnosis

The WindFree™ 4-Way Cassette's Self-Diagnosis function alerts you to malfunctions straight away. It means that you can quickly arrange a service repair visit. And an error code and LED light enable engineers to easily identify the cause of any failure, helping to reduce the time it takes to diagnose and fix the problem.

Examples of relevant errors	LED-lamp display			
	On/Off	Defrost	Timer	Filter
Error on indoor temperature sensor				●
Error on heat exchanger sensor of the indoor unit	●	●		
Error on outdoor unit sensors	●		●	
Error on MDS (Motion Detect Sensor)	●			●

● Blinking

Not all features are available for all models.

Innovations in detail

# WindFree™ 1-Way Cassette

UNIQUE

## Slim installation

At a height of only 135 mm<sup>1</sup>, the WindFree™ 1-Way Cassette is a compact and lightweight device (8–13.5 kg). This slim design makes it not only visually pleasing but also easier to install and maintain, and it can be fitted into small gaps or ceilings.



## Easy Maintenance

The Samsung WindFree™ 1-Way Cassette requires no duct work. You simply need to regularly clean the built-in filter with water, after removing it from your air conditioner.

### Ducted Airconditioner



**Duct work required**  
Dust particles accumulate in both filters and duct work

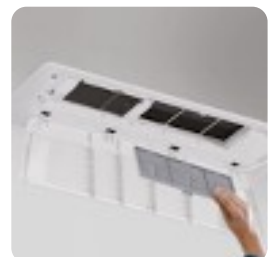


**Professional cleaning service or tool required**  
It is difficult to clean the inside duct work, so you need to hire a professional cleaner

### WindFree™ 1-Way Cassette



**No duct work required**  
Only the filter needs to be cleaned



**Anyone can clean it with water**  
Only the filter needs to be cleaned

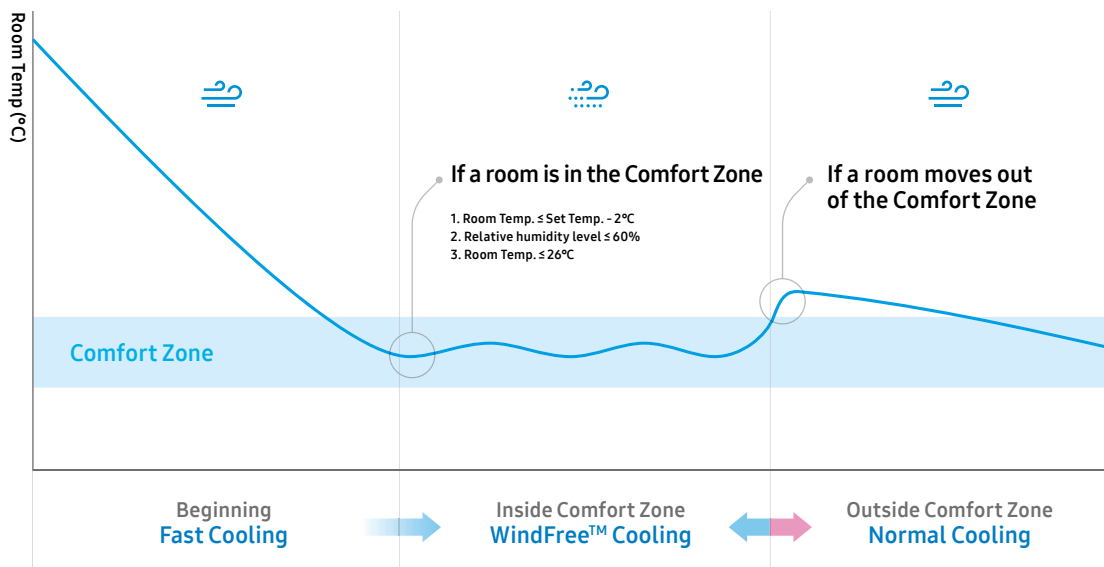
<sup>1</sup> 135 mm is the height of the unit until the ceiling tile. 145 mm is the height including the ceiling tile. Up to 3.6 kW (DVM) models measures 135 mm (180 mm including panel).



## Wider cooling range

The larger optimised blade is 100 mm<sup>1</sup> and works to cool a larger area much faster. Its sleek design can deliver cool air efficiently, rapidly and evenly over an area of up to 8 m<sup>2</sup> leaving no zone untouched.

<sup>1</sup> Samsung testing compares the WindFree™ 1-Way Cassette to a conventional 1-Way Cassette-type air conditioner.  
<sup>2</sup> Based on the 7.1 kW indoor unit.



## Smart Comfort Operation

The WindFree™ 1-Way Cassette has a humidity sensor as well as a temperature sensor. It continually monitors both the temperature and relative humidity<sup>1</sup> and analyzes the room

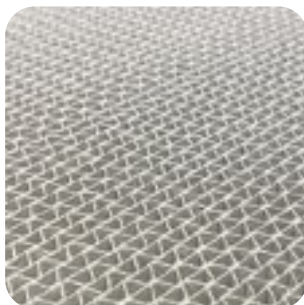
conditions. It then automatically switches between operating modes to keep everyone feeling really comfortable without the need for any manual control.

<sup>1</sup> The humidity level will only be shown during WindFree™ operation and Dry Mode via the SmartThings app display.

Not all features are available for all models.



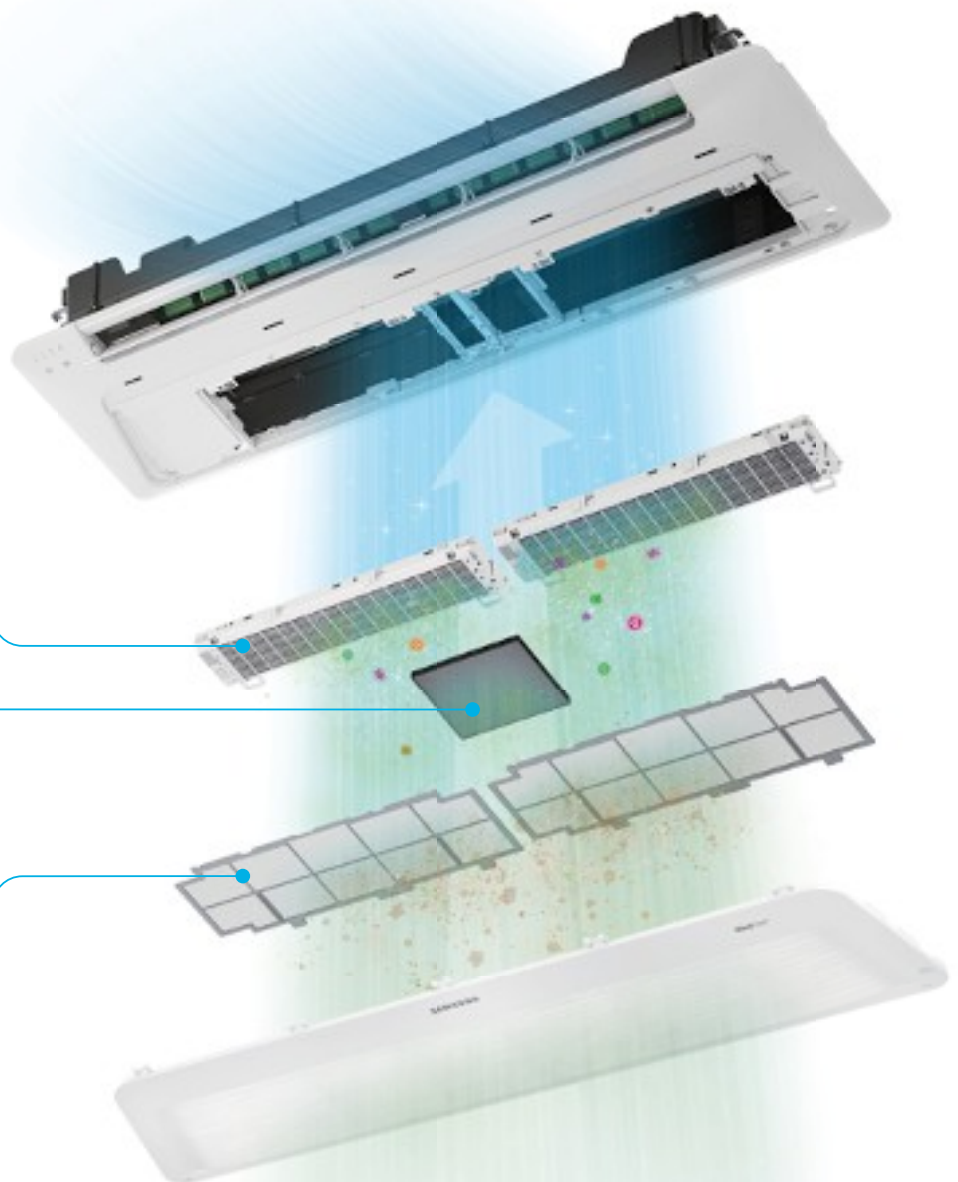
PM1.0 Filter



Deodorization Filter



Pre-Filter



## Air Purification Panel

The Air Purification Panels in the WindFree™ 1-Way Cassette contain three types of filters to enhance the mitigation of certain Particulate Matter, aimed to keep the indoor air cleaner all day long. The WindFree™ 1-Way Cassette is made of a three filter purification system the Pre-Filter, Deodorization Filter<sup>1</sup> and the PM1.0 Filter.

The Pre-Filter captures larger dust particles, stopping them from entering the air conditioning unit. The deodorization filter captures certain unpleasant odours. The PM1.0 Filter not only effectively

captures ultrafine dust upto 0.3 µm but also inactivates certain types of bacteria that are captured, using an electrostatic precipitator. It has two main parts that charge and collect certain types of dust and bacteria.<sup>2</sup> The brush discharger generates negative ions. These give the dust particles and certain types of bacteria a negative charge, so they become strongly attached to the ground electrode due to the electrostatic force of the collector. An added advantage is that this filter is also semi washable, thus saving the purchase and maintenance cost of replacing the filter.

<sup>1</sup> The Deodorization Filter can only be found in WindFree™ 1-Way Cassette.

<sup>2</sup> Intertek Report No.: RT20E-S0010-R Date: APR. 17, 2020 (Revised) Based on the data collected the Hypothesis is accepted: The K-element (Electrostatic Precipitator) of Samsung Electronics can sterilize the certain types of bacteria that collected on the filter. (Escherichia coli: above 99 %, Staphylococcus aureus: above 99 %)



# 13,000 micro-holes



SAMSUNG

## WindFree™ Technology

The WindFree™ 1-Way Cassette uses WindFree™ Cooling and directs air through tiny holes in the panel, dispersing a gentle flow of air. These 13,000 micro-holes are essential for creating a type of airflow called “Still Air”<sup>1</sup>, which cools the room gradually and noticeably without drafts.

<sup>1</sup> ASHRAE (the American Society of Heating, Refrigeration, and Air-Conditioning Engineers) defines “Still Air” as air currents moving at speeds below 0.15 m/s, with no cold drafts.

SAMSUNG

# Innovations in detail

360 Cassette

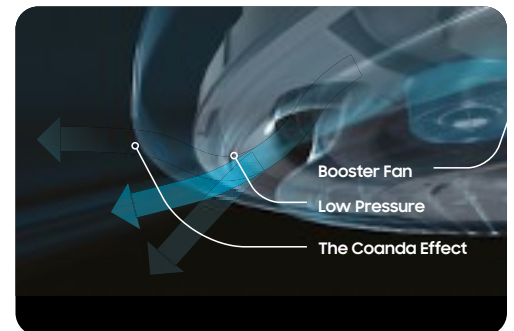




## Airflow Control

The air supply is easily adjusted without the use of flaps. Three booster fans work to alter the direction of airflow from within the cassette's hollow space. A rain-like distribution of the air (known as the 'coanda' effect) keeps the room cool and comfortable at all times. The innovative technology overcomes the usual limits of the conventional outlets that use blades, as they obstruct the air at low angles and cause a significant low airflow<sup>1</sup>. The Motion Detector Sensor (MDS) is available for the 360 Cassette.

<sup>1</sup> Based on internal testing compared to a general 4-Way Cassette air conditioner.



## Stylish design

The 360 Cassette has an innovative circular design that enables it to match a multitude of interior designs, that adds a touch of style to any room. Its minimalistic and elegant styling can help to create a sophisticated and distinctive look in many different sites. With a circular panel, it can fit into a very tiny ceiling space of just 225 mm<sup>1</sup>, so it gives you much greater flexibility as it can be installed in a wider choice of locations. The 360 Cassette is available in black or white, in a square or circular design, and can be fitted within the ceiling or exposed on any material.

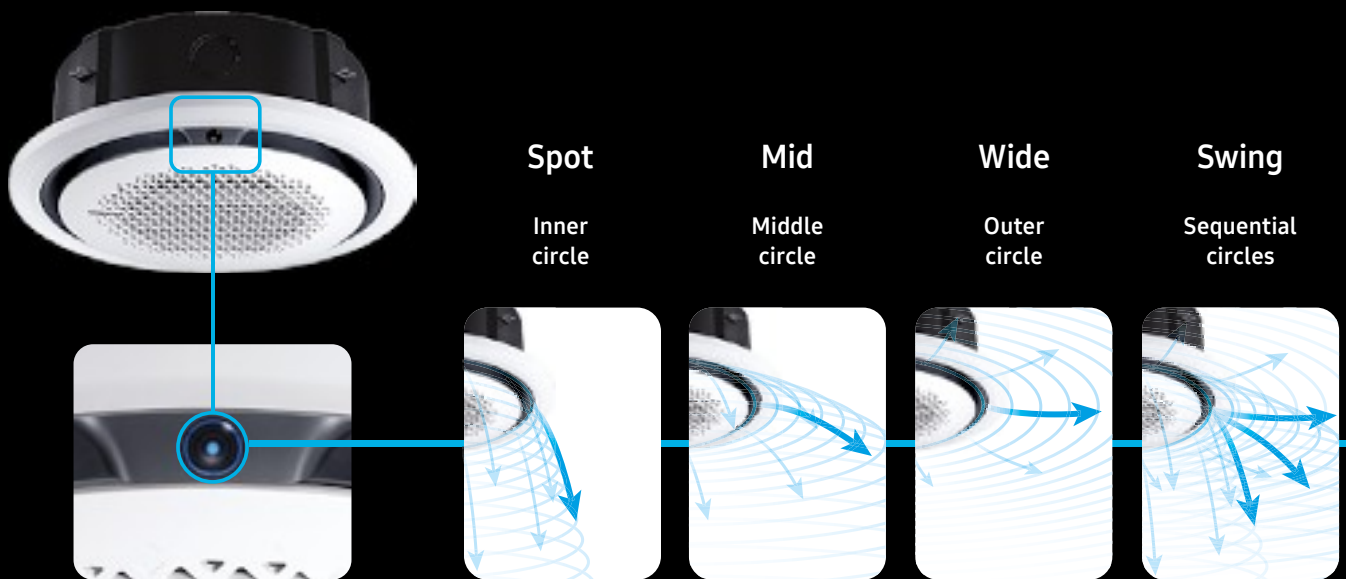
<sup>1</sup> The minimum installation height of ceiling space may vary depending on the panel design - circular or square type. Square type panels require 30 mm more height in a ceiling space than circular type panel.

Not all features are available for all models.



# Circular LED display

The unit features a stylish panel and an intuitive Circular LED display, which allows users to choose or adjust the direction of the airflow with an intuitive wireless (jog shuttle) wireless remote controller. Besides the LED Display also monitors other essential operating information, such as the filter the air flow direction, filter status and any errors. So, with just one glance, you can quickly tell where the air is going and how your 360 Cassette is performing.



Samsung 360 Cassette



# Circular airflow

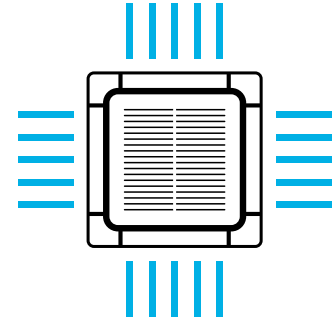
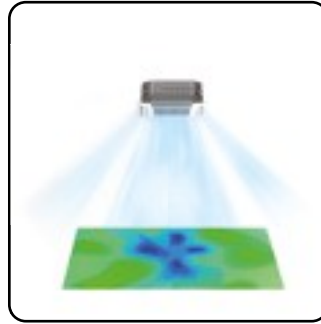
Unlike traditional 4-Way Cassette units<sup>1</sup>, which create areas of uneven airflow<sup>2</sup>, the 360 Cassette reaches every single corner of a room or space. Its circular outlet blows cool air in every direction. The bladeless design keeps things comfortably cool without creating a cold draft<sup>3</sup>, and without blades blocking the airflow it sends 25 % more air even further<sup>1</sup>.

<sup>1</sup> Samsung testing compares the 360 Cassette to a conventional 4-Way Cassette type air conditioner.

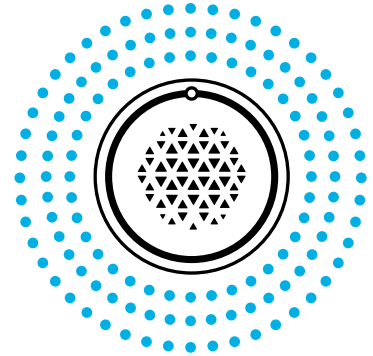
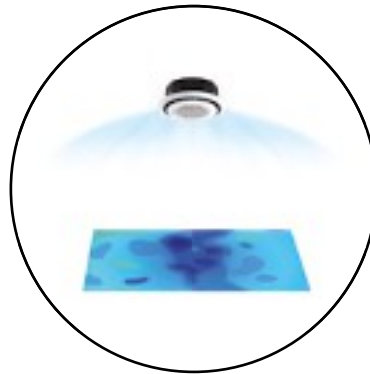
<sup>2</sup> The temperature difference is less than 0.6 °C within a 9.3 m radius.

<sup>3</sup> No cold draft between 0–1.5 m in height (with a 14.0 kW indoor unit) within a 5 m radius.

Conventional 4-Way Cassette

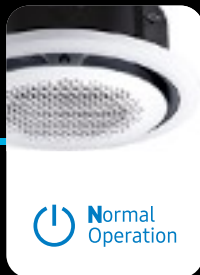


Samsung 360 Cassette



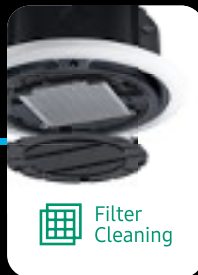
## Operating

Ice Blue dot



## Filter

Yellow Green dot



## Error

Blue dot (blinking)



## Error

Red dot (blinking)



## Air Purification Panel

The Samsung 360 Cassette offers an Purifying Panel that keeps the indoor air cleaner. It is made of a two filter purification system the pre-filter and the PM1.0 Filter and has a superior filter mesh with 0.5 mm holes, which is 20 % denser than a vinyl chloride type filter.

The Pre-Filter captures larger dust particles, stopping them from entering the air conditioning unit. The PM1.0 Filter is not only effective at capturing ultrafine dust of up to 0.3 µm in size, but it also sterilizes up to 99 % of certain types of bacteria<sup>1</sup> trapped by the filter using an electrostatic precipitator<sup>1</sup>.

<sup>1</sup> Verified by Intertek, Report Number RT20E-S0010-R, Issue Date: 17 April 2020. The K-element (Electrostatic Precipitator) of Samsung Electronics can sterilize certain types of bacteria that collected on the filter (Escherichia coli: above 99 %, Staphylococcus aureus: above 99 %).

<sup>2</sup> The Air Purification panel is an optional accessory.

### Air Purity Level Display



Very Poor

Poor

Moderate

Good



PM1.0 Filter



Pre-Filter

intertek  
Total Quality Assured.

## Auto Elevation Panel

The cleaning of filters is also an integral part of maintaining good indoor air quality, and elevation panels can make this process easier.

An Auto Elevation Panel is a panel that provides quick and comfortable access to dust filters for cleaning, facilitating extra convenience with the 4.5 metre<sup>1</sup> elevation advantage with a single remote click. Thus, a ladder is no longer required when cleaning panels. This makes it easier and safer for end users or service engineers to access filters for cleaning.

<sup>1</sup> May vary based on the actual usage conditions.

<sup>2</sup> The Auto Elevation panel is an optional accessory.



4.5m

Pre-Filter



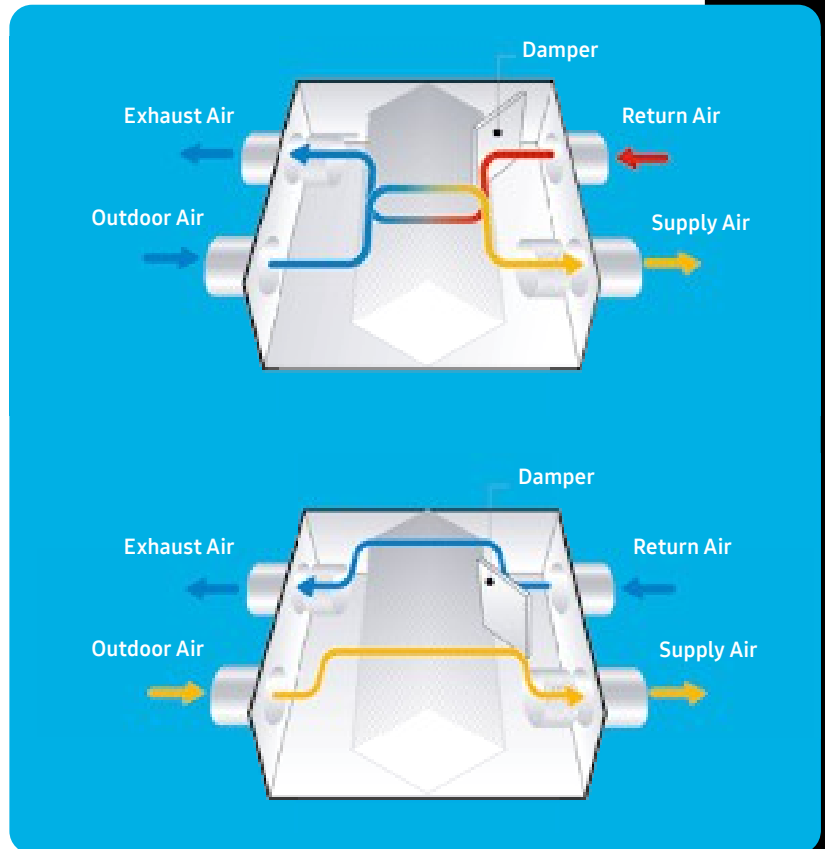


# ERV (Plus)



## Smart cooling auto mode

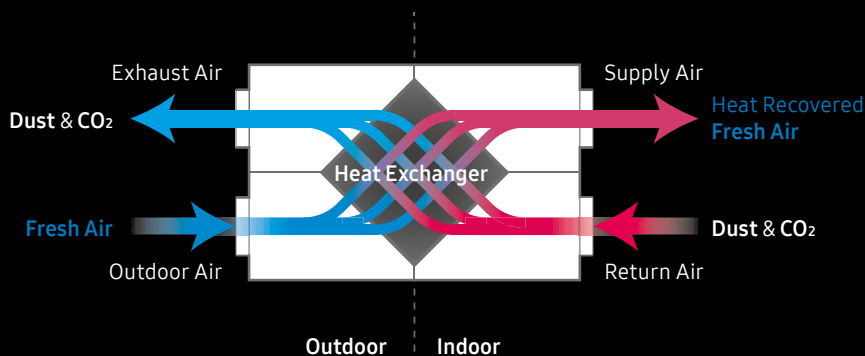
To conserve energy and remain cost-effective, the ERV and ERV Plus (for DVM) both automatically change operation modes depending on the indoor and outdoor temperatures. The ERV Plus (DVM only) is equipped with a direct expansion coil, which brings fresh outside air through the DX coil and into your space. It heats or cools, and can keep rooms at your desired temperature.



## Instantly reduces CO<sub>2</sub> in your room

The ERV indoor unit has a CO<sub>2</sub> Sensor<sup>1</sup> that detects the level of CO<sub>2</sub> in the air and instantly draws in more outdoor air to maintain a comfortable environment. When the CO<sub>2</sub> level is low the fan speed will be lower and energy will be saved due to the lower power consumption of the fans and loss due to the ventilation of the room air.

<sup>1</sup> Optional, to be bought separately





# Air Handling Unit (AHU) Kit

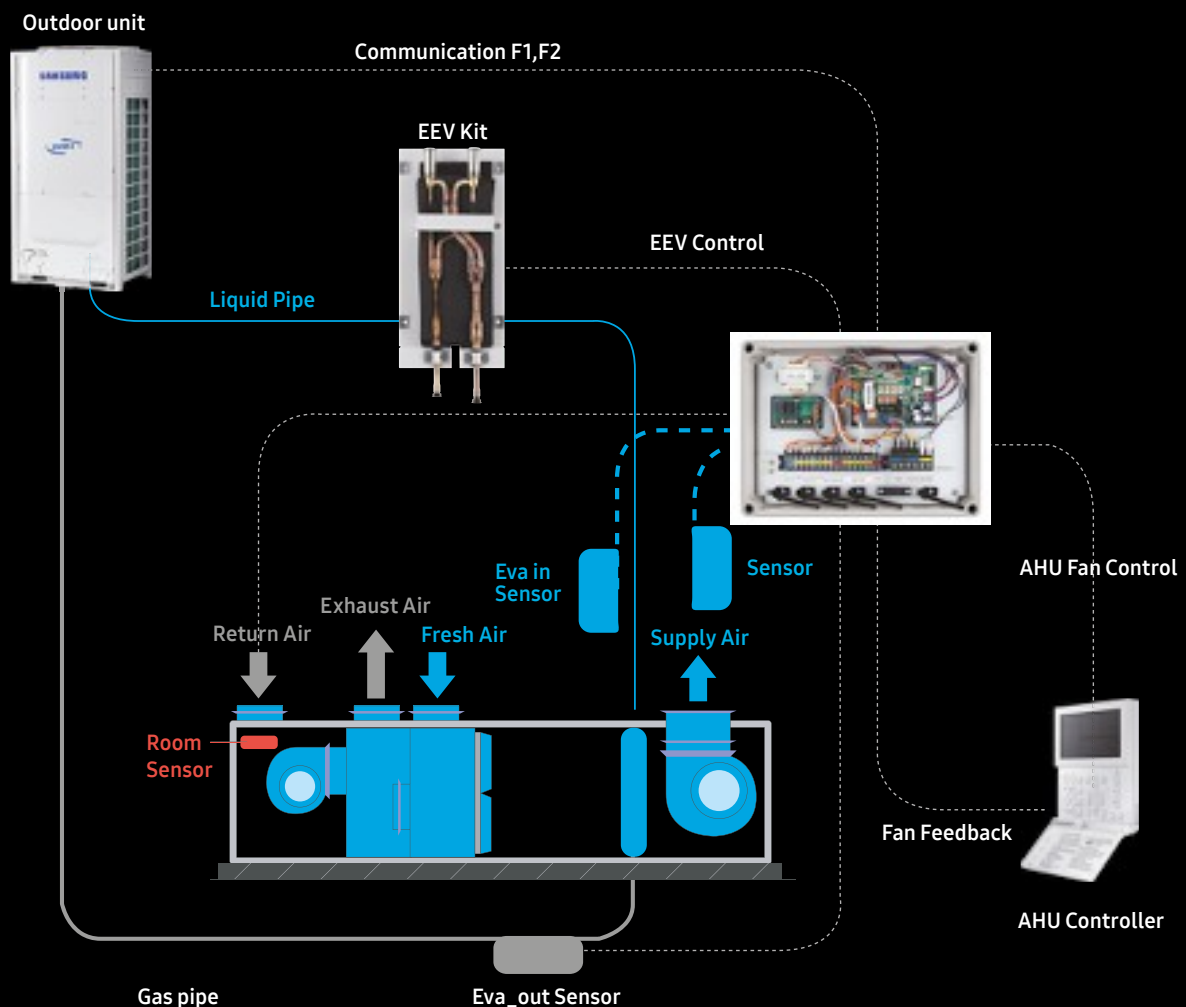
## Connect to third-party air handling units

The Samsung AHU kit allows the connection of DVM outdoor units to third-party air handling units (AHUs)<sup>1</sup>. With this kit you can supply heating or cooling to a DX coil in the AHU. This is a cost-efficient and effective way to provide fresh air to the building at the correct temperature. The unit improves performance and efficiency and is cost-effective.

### Features include:

- IP54 waterproof certification (for MXD type AHU kit only)
- Variable capacity
- 2.5 HP–40 HP
- Simple BMS application (0–10 V, MXD-K/X Series)
- Discharge air temperature control and outdoor capacity control

<sup>1</sup> Please contact your local Samsung representative for more information.

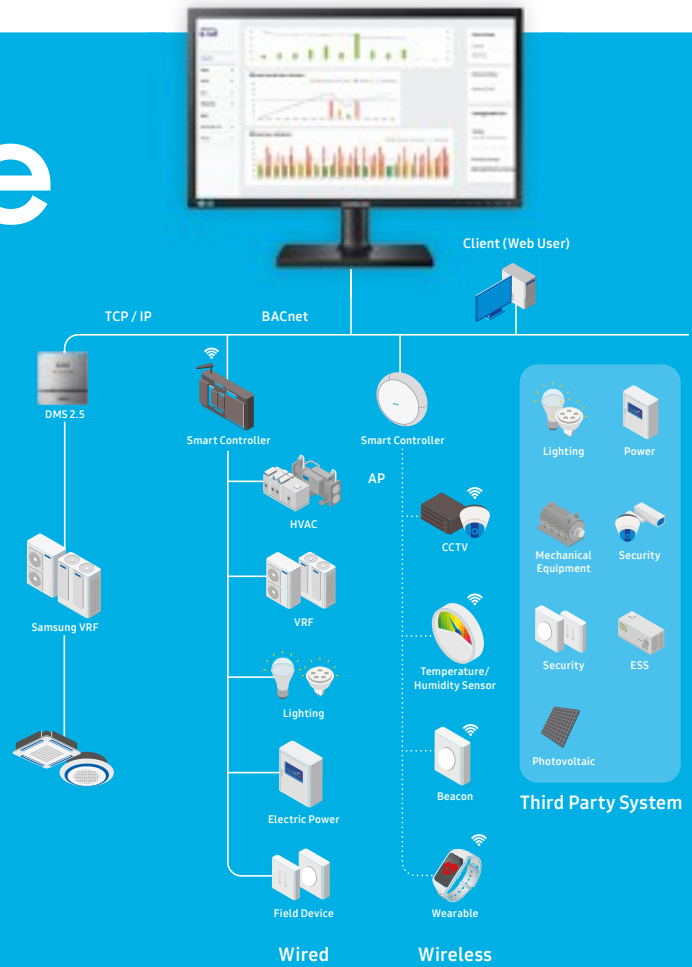


# b.IoT Lite

Samsung b.IoT (building Internet of Things) is a building management solution that can efficiently manage and save energy. It is an open platform with expandability and compatibility options that enable integrated control of the facility's major systems, such as VRF and third-party party devices via BACnet interface.

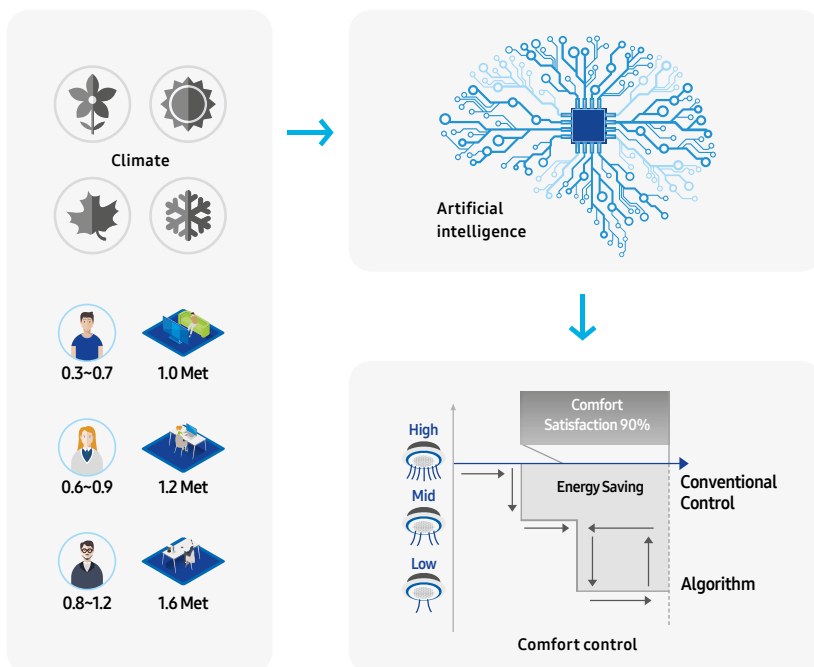
Samsung b.IoT Lite helps to ensure:

- Efficient installation periods
- Reductions in installation and operation costs
- Optimal energy efficiency
- Efficient management of integrated systems installed in the building



\* This picture refers to b.IoT Enterprise features. Smart Controller, IoT AP, Wireless Devices are available for Korean market only.

Samsung b.IoT Lite provides:



## Intelligent energy saving algorithms

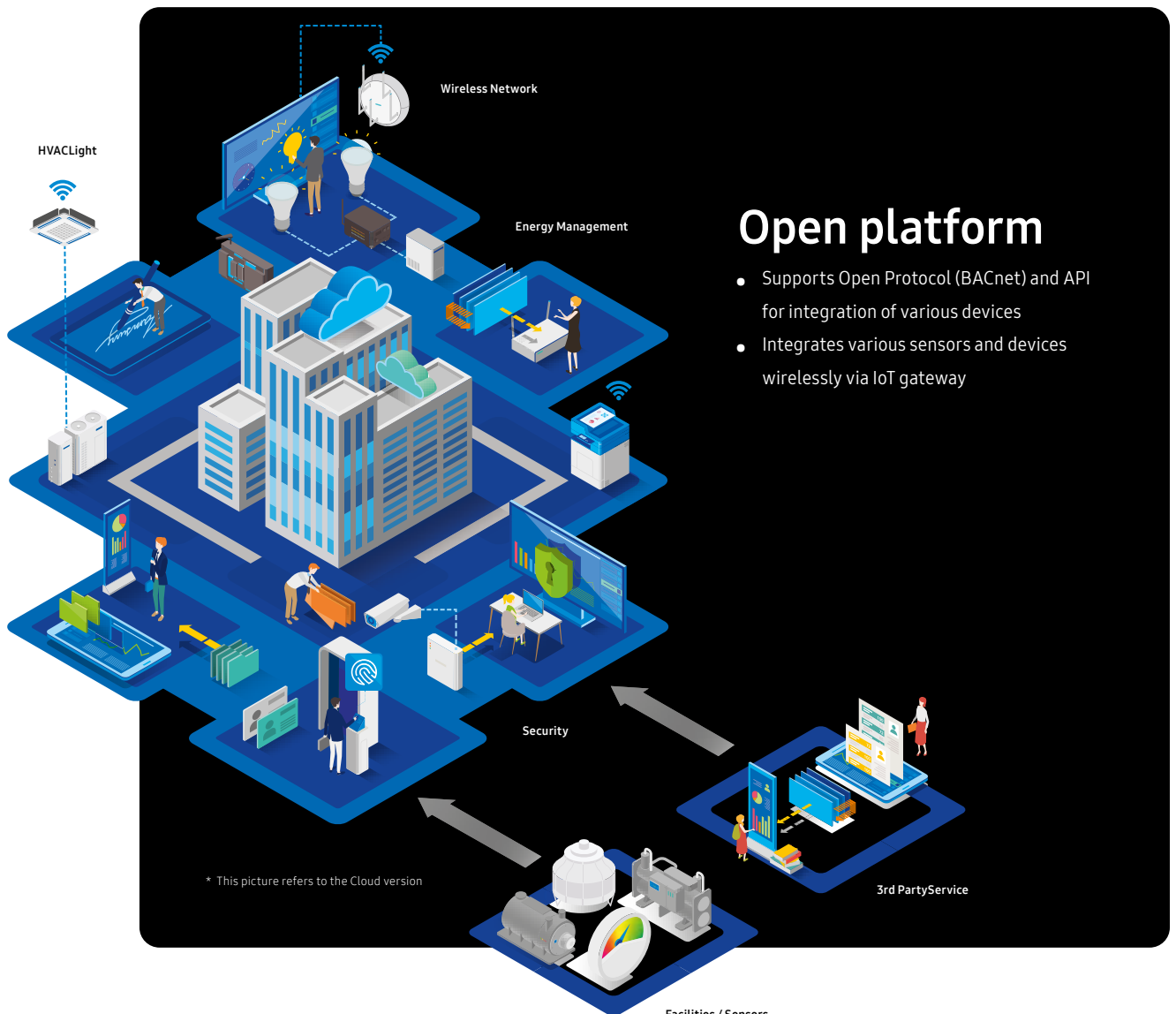
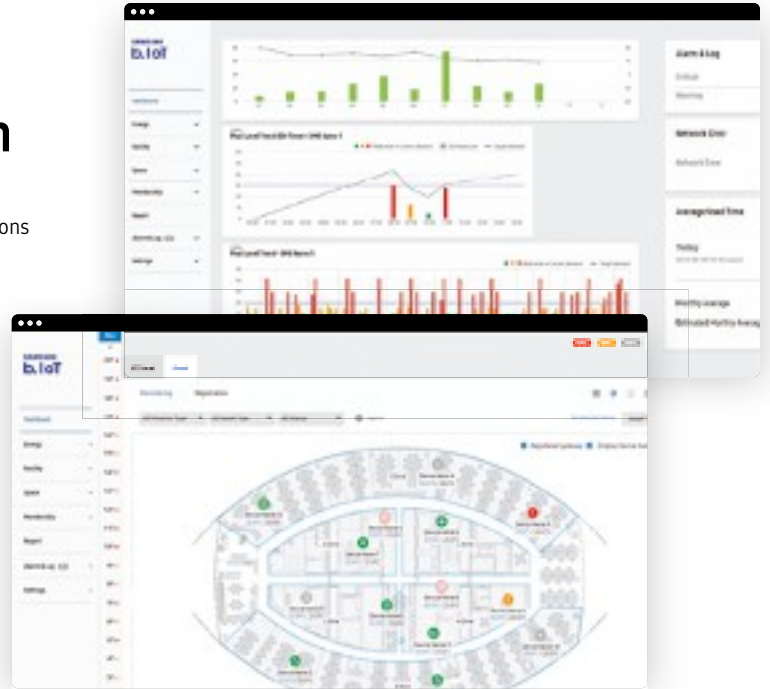
- **Data-Based Comfort Control**  
Comfort based on user-specific algorithms
- **Learning-Based Control**  
Optimised control by artificial intelligence (AI)
- **Occupancy-Based Control**  
Lighting, humidity & temperature
- **Inefficient Operation Detection**  
Time, space & temperature

## Easy and smart operation

- Optimal operation for Samsung VRF (DVM) products
- Intuitive Graphic UI & convenient rules editor for various solutions
- Trends & alarm lookup

## Effective energy usage management

- Energy usage analysis
- Energy consumption distribution



## Open platform

- Supports Open Protocol (BACnet) and API for integration of various devices
- Integrates various sensors and devices wirelessly via IoT gateway

# VRF














SAMSUNG

DVM S2 | WindFree™

SAMSUNG



















DVM S2 | WindFree™

# Line-up outdoor

	Model	Image	Capacity (HP)															
			4	5	6	8	10	12	14	16	18	20	22	24	26	30		
Heat Pump	DVM S Eco Heat Pump		•	•		•	•	•										
	DVM S2 Essential Heat Pump (2-Pipe)							•	•	•	•	•						
	DVM S2 Standard Heat Pump (2-Pipe)						•	•	•	•	•	•	•	•	•	•	•	•
	DVM S2 High Efficiency Heat Pump (2-Pipe)						•	•	•	•	•	•	•	•	•	•	•	•
Heat Recovery	DVM S Eco Heat Recovery (With Heat Recovery Changer Kit)		•	•	•													
	DVM S2 High Efficiency Heat Recovery (3-Pipe)						•	•	•	•	•	•	•	•	•	•	•	•
Water to Air/Water	DVM S Water						•	•	•					•				•



# Line-up indoor

Model	Image	Capacity (kW)									
		1.5	1.7	2.2	2.8	3.6	4.5	5.6	6.0	7.1	
WindFree™ 1-Way Cassette			•	•	•	•			•		•
WindFree™ 4-Way 600 x 600 Cassette		•		•	•	•	•	•	•	•	
WindFree™ 4-Way Cassette					•	•	•	•			•
360 Cassette								•	•		•
LSP Duct (drain pump excluded)			•	•	•	•	•	•			•
LSP Duct (drain pump included)			•	•	•	•	•	•			•
MSP Duct (drain pump included)				•	•	•	•	•			•
HSP Duct											
Console				•	•	•	•				
Floor/Ceiling									•		•
Big Ceiling											
Concealed Floor-Standing							•		•		•
Packaged Floor-Standing											
WindFree™ Deluxe (EEV included)		•		•	•	•	•	•	•		•
WindFree™ Deluxe (EEV excluded)		•		•	•	•	•	•	•		•
Max Wall-Mounted											
Hydro Unit HE											
Hydro Unit HT											

**NOTE**

- Make sure to use an indoor unit that is compatible with DVM S2.
- Indoor units can be connected within the range indicated in the following table.
- If the total capacity of the connected indoor units exceeds the indicated maximum capacity, the cooling and heating capacity of the indoor unit may decrease.
- The total allowable capacity of the connected indoor units can be from 50 % to 130 % of the total outdoor unit capacity.  $0.5 \times \Sigma$  (Outdoor unit capacity)  $\leq$  Total capacity of the connected indoor units  $\leq 1.3 \times \Sigma$  (Outdoor unit capacity).
- EEV kit is necessary for all Indoor Units which do not have EEV kit included, please order EEV Kit separately.



Capacity (kW)

8.2

9.0

11.2

12.8

14.0

16.0

18.0

22.0

25.0

28.0

32.0

50.0

• • • •

• • • •

•

• • • • •

• • • • • • • •

• •

• •

•

•

•

• • •

• •







# Selection guide

## Heat pump



Model		DVM S Eco		DVM S2 Essential	DVM S2 Standard	DVM S2 High Efficiency
		AM***BXMDEH/EU AM***BXMDBGH/EU	AM***BXMWGH/EU	AM***AXVDGH/EU	AM***AXVAGH/EU	AM***AXVGGH/EU
Type	Heat Pump	●	●	●	●	●
	Heat Recovery					
	Capacity range	4-8 HP	8-12 HP	10-40 HP	8-98 HP	8-98 HP
Connectability	WindFree™ Cassette	●	●	●	●	●
	360 Cassette	●	●	●	●	●
	LSP Duct	●	●	●	●	●
	MSP Duct	●	●	●	●	●
	HSP Duct	●	●	●	●	●
	ERV Plus/OAP Duct	●	●	●	●	●
	Wall-Mounted	●	●	●	●	●
	Ceiling/Concealed/Floor-Standing	●	●	●	●	●
	Hydro unit HE/HT	●	●	●	●	●
	MCU Kit					
	AHU Kit	●	●	●	●	●
Features	Refrigerant check mode	●	●	●	●	●
	Simultaneous cooling and heating					
	7-Segment display	●	●	●	●	●
	Four-way direction piping connection	●	●			
	Advanced Flash Injection™			●	●	●
	Cooling @ 50°C			●	●	●
	Heating @ -25 °C <sup>2</sup>		●	●	●	●
	Max. External Static Pressure 110Pa <sup>2</sup>			●	●	●
	Improved fan diffuser			●	●	●
	Reduced air flow noise			●	●	●
	Leak detection (pump down function)			●	●	●
	Night silent mode	●	●	●	●	●
	Variable Refrigerant Temperature	●	●	●	●	●
	Inverter scroll compressor		●	●	●	●
	Twin BLDC rotary compressor	●				
	DC fan motor	●	●	●	●	●
	Multi-serration Fan <sup>2</sup>			●	●	●
	Active AI Pressure Control			●	●	●
	Active AI Defrost			●	●	●
	Active AI Refrigerant Analysis			●	●	●
	On-device Inverter Checker™			●	●	●
	Durafin™ Ultra Heat Exchanger Fin			●	●	●
	Slimmer Liquid Line <sup>3</sup>			●	●	●
Refrigerant type	R410A	R410A	R410A	R410A	R410A	
Smart Protection Technology	Adaptive Sine Wave	●	●	●	●	●
	Refrigerant cooled PCB			●	●	●
	Resonance Avoidance Technology	●	●	●	●	●

<sup>1</sup> Can be connected as a 2-pipe system.

<sup>2</sup> Model specific.

<sup>3</sup> Optional.





# Selection guide

## Cassette



Model		WindFree™ 1-Way Cassette	WindFree™ 4-Way Cassette	360 Cassette	LSP Duct	MSP Duct
Airflow	WindFree™ Cooling	•	•			
	360 Degree Air Supply			•		
Air Purification	Air Filter	•	•	•	•	•
Functions	Compatible with Samsung SmartThings	•	•	•	•	•
	Compatible with Wi-Fi Kit	•	•	•	•	•
	Humidity Sensor	•	•	•		
	MDS (Motion Detect Sensor)		Optional	Optional		
	Automatic ESP Setting					•
	Quiet Mode	•	•			
Controls	Wireless remote controller included					
Others	EEV included	•	•	•	•	•
	Built-In Drain Pump	•	•	•	Model-specific	•

## Others



Model		Console	Floor/Ceiling	Big Ceiling	Concealed Floor-Standing	Packaged Floor-Standing
Airflow	WindFree™ Cooling					
	360 Degree Air Supply					
Air Purification	Air Filter	•	•	•	•	•
Functions	Compatible with Samsung SmartThings	•	•	•	•	•
	Compatible with Wi-Fi Kit	•	•	•	•	•
	Humidity Sensor					
	MDS (Motion Detect Sensor)					
	Automatic ESP Setting					
	Quiet Mode				•	
Controls	Wireless remote controller included	•				
Others	EEV included	•		•	•	•
	Built-In Drain Pump					



HSP Duct

- 
- 
- 

Model-specific

- 

Model-specific



Hydro Unit HE



Hydro Unit HT

- 

- 

## Wall-mounted



WindFree™ Deluxe



Max Wall-Mounted

- 

- 
- 
- 

- 

Model-specific<sup>1</sup>

- 
- 
- 

- 

<sup>1</sup>EEV kit is necessary for all Indoor Units which do not have EEV kit included, please order EEV Kit separately.







# Nomenclature

## Indoor units

<b>AM</b>	<b>045</b>	<b>A</b>	<b>N</b>	<b>4</b>	<b>P</b>	<b>K</b>	<b>H</b>
1	2	3	4	5	6	7	8

<b>1</b>	<b>Classification</b>	AM	VRF (DVM)
		AN	Ventilation (ERV)
<b>2</b>	<b>Capacity</b>	x 1/10 kW (3 digits)	
<b>3</b>	<b>Version</b>	F	2013
		H	2014
		J	2015
		K	2016
		M	2017
		N	2018
		R	2019
		T	2020
<b>4</b>	<b>Product Type</b>	A	2021
		N	Indoor Unit (NASA)
<b>5</b>	<b>Product Notation</b>	S	ERV
		1	WindFree™ 1-Way Cassette
		4	360 Cassette & WindFree™ 4-Way Cassette
		N	WindFree™ 4-Way 600 x 600 Cassette
		L	Low Static Pressure Duct (Slim Duct)
		M	Medium Static Pressure Duct
		H	High Static Pressure Duct
		E	Outdoor Air Processing Duct
		C	Ceiling
		J	Console
		F	Floor-Standing
		P	Packaged Floor-Standing
		T	Boracay Wall-Mounted (EEV excluded)
		Q	Boracay, Max Wall-Mounted (EEV included)
		A	AR5000 Wall-Mounted (EEV excluded)
		V	AR5000 Wall-Mounted (EEV included)
		B	Hydro Unit
		K	ERV (Plus)
		W	DVM S Water
		<b>6</b>	<b>Feature</b>
P	Premium		
D	Deluxe		
S	Standard		
<b>7</b>	<b>Voltage Rating</b>	E	1Ø, 220–240 V, 50 Hz
		K	1Ø, 220–240 V, 50/60 Hz
		G	3Ø, 220–240 V, 50 Hz
<b>8</b>	<b>Mode</b>	H	Heat Pump (R410A)
		B	Heat Pump (R134A)
		N	ERV

# Nomenclature

## Outdoor units

<b>AM</b>	<b>080</b>	<b>B</b>	<b>X</b>	<b>M</b>	<b>D</b>	<b>G</b>	<b>H</b>
1	2	3	4	5	6	7	8

<b>1</b>	<b>Classification</b>	AM	VRF (DVM)
<b>2</b>	<b>Capacity</b>	x 1/10 HP (3 digits)	
<b>3</b>	<b>Version</b>	K	2016
		M	2017
		N	2018
		R	2019
		T	2020
		A	2021
		B	2022
<b>4</b>	<b>Product Type</b>	X	Outdoor Unit
<b>5</b>	<b>Product Notation</b>	V	DVM S Essential/Standard/High Efficiency
		W	DVM S Water
		M	DVM S Eco
<b>6</b>	<b>Feature</b>	A	Standard + General Temperature + Module
		H	High EER + Low Temperature + Module
		G	High EER + General Temperature + Module
		D,W	Standard + General Temperature + Non-Module
<b>7</b>	<b>Voltage Rating</b>	E	1Φ, 220~240 V, 50 Hz
		G	3Φ, 380~415 V, 50 Hz
		N	3Φ, 380~415 V, 50/60 Hz
<b>8</b>	<b>Mode</b>	H	Heat Pump
		R	Heat Recovery

# Specifications

## DVM S Eco Heat Pump

- Horizontal discharge and rear suction by means of one (4~5 HP) or two (8~14 HP) propeller BLDC Inverter fan(s).
- Each module houses one compressor: Twin BLDC Rotatory (4~8 HP) or Inverter Scroll with Flash Injection technology (10~14 HP).
- Compressor micro frequency control with 0.01 Hz step.
- Night Silent Mode available.
- Eurovent certified and ErP (Ecodesign) compliant.
- Four-way direction piping connection.



Model				AM040BXMDHEH/EU	AM050BXMDHEH/EU	AM080BXMDGH/EU	
Power Supply		Ø, #, V, Hz		1Ø, 2, 220~240 V, 50 Hz	1Ø, 2, 220~240 V, 50 Hz	3Ø, 4, 380~415 V, 50 Hz	
Performance	HP	HP		4	5	8	
	Capacity	Cooling	kW	12.1	14	22.4	
		Heating	kW	12.1	14	22.4	
	Maximum number of connectable indoor units		ea	6	8	13	
	Total capacity of the connected indoor units	Min.	kW	5.6	7	11.2	
Max.		kW	15.7	18.2	29.1		
Power	Power Input	Cooling	kW	3.9	5.19	10.98	
		Heating	kW	3.23	4.12	6.4	
	Current Input	Cooling	A	17.8	23.8	17.2	
		Heating	A	14.8	18.9	10	
	Current	Minimum SSC value	MVA	-	-	3.4	
MCA		A	24	27	18.4		
MFA		A	32	40	25		
Energy Efficiency <sup>1</sup>	EER (Nominal Cooling)		W/W	3.1	2.7	2.04	
	COP (Nominal Heating)		W/W	3.75	3.4	3.5	
	SEER (Cassette)		W/W	7.6	7.35	6	
	SCOP (Cassette)		W/W	4.2	4.4	4.25	
Compressor	Type		-	Twin BLDC Rotary	Twin BLDC Rotary	Twin BLDC Rotary	
	Output		kW × n	4.04 x 1	4.04 x 1	4.78 x 1	
	Oil	Type		-	PVE	PVE	PVE
Initial Charge			cc	1,700	1,700	1,700	
Fan	Type & Discharge direction			-	Propeller	Propeller	Propeller
				-	Horizontal	Horizontal	Horizontal
	Number of Fans		ea	1	1	2	
	Airflow Rate		m <sup>3</sup> /min	64	70	135	
	External Static Pressure	Max.		mmAq	3	3	3
			Pa	29.4	29.4	29.4	
Fan Motor	Model		-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output x n		W	125 x 1	139 x 1	139 x 2	
Piping Connections	Liquid Pipe		ø, mm	9.52	9.52	9.52	
			ø, inch	3/8	3/8	3/8	
	Gas Pipe		ø, mm	15.88	15.88	19.05	
			ø, inch	5/8	5/8	3/4	
	Piping length (ODU-IDU) <sup>3</sup>	Max. (Equiv.)	m	50 (65)	50 (65)	100 (130)	
	Piping length (1st Branch - IDU) <sup>3</sup>	Max.	m	40	40	40	
	Total piping length (System)	Max.	m	150	150	300	
	Level Difference (Outdoor in highest position)	Max.	m	30	30	30	
	Level Difference (Indoor in highest position)	Max.	m	25	25	30	
	Level Difference (IDU-IDU) <sup>3</sup>	Max.	m	15	15	30	
Wiring Connections	Communication	Min.	mm <sup>2</sup>	0.75	0.75	0.75	
	Remark		-	F1, F2	F1, F2	F1, F2	
Refrigerant	Type			R410A(Fluorinated greenhouse gas, GWP=2,088)			
	Factory Charging		kg / tCO <sub>2</sub> e	2.00/4.18	2.50/5.22	3.70/7.73	
Sound <sup>2</sup>	Sound Pressure	Cooling	dB(A)	53	56	58	
		Heating	dB(A)	56	58	59	
	Sound Power		dB(A)	70	73	73	
External Dimensions	Net Weight		kg	79	84	115	
	Net Dimensions (W x H x D)		mm	940 x 998 x 330	940 x 998 x 330	940 x 1,420 x 330	
Operating Temperature Range	Cooling		°C	-5.0~48.0	-5.0~48.0	-5.0~48.0	
	Heating		°C	-20.0~24.0	-20.0~24.0	-20.0~24.0	





AM080BXMWGH/EU	AM100BXMWGH/EU	AM120BXMWGH/EU
3Ø, 4, 380-415 V, 50 Hz	3Ø, 4, 380-415 V, 50 Hz	3Ø, 4, 380-415 V, 50 Hz
8	10	12
22.4	28	33.6
22.4	28	33.6
13	18	21
11.2	14	16.8
29.1	36.4	43.6
9.96	12.73	14.3
5.89	7.78	9.21
15.6	20	22.4
9.2	12.2	14.4
3.4	4.6	5.1
18	21.5	23.5
25	30	30
2.25	2.2	2.35
3.8	3.6	3.65
6.3	6.4	6.5
4.25	4.15	4.5
Scroll Inverter	Scroll Inverter	Scroll Inverter
5.18 x 1	6.39 x 1	6.39 x 1
PVE	PVE	PVE
1,100	1,100	1,100
Propeller	Propeller	Propeller
Horizontal	Horizontal	Horizontal
2	2	2
135	165	166
3	3	3
29.4	29.4	29.4
BLDC Motor	BLDC Motor	BLDC Motor
139 x 2	244 x 2	244 x 2
9.52	9.52	12.70
3/8	3/8	1/2
19.05	22.22	28.58
3/4	7/8	11/8
100 (130)	160 (185)	160 (185)
40	40	40
300	300	300
50	50	50
40	40	40
50	50	50
0.75	0.75	0.75
F1, F2	F1, F2	F1, F2
R410A(Fluorinated greenhouse gas, GWP=2,088)		
3.70/7.73	4.30/8.98	4.80/10.02
58	58	60
59	64	64
73	74	76
135	155	162
940 x 1,420 x 330	940 x 1,630 x 460	940 x 1,630 x 460
-5.0-48.0	-5.0-52.0	-5.0-52.0
-20.0-24.0	-25.0-24.0	-25.0-24.0

<sup>1</sup> Performances are based on the following test conditions:  
 - Cooling: Indoor temperature: 27 °C DB, 19 °C WB,  
 Outdoor temperature: 35 °C DB, 24 °C WB  
 - Heating: Indoor temperature: 20 °C DB, 15 °C WB,  
 Outdoor temperature: 7 °C DB, 6 °C WB  
 - Equivalent refrigerant piping: 7.5 m, Level differences: 0 m

<sup>2</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions. Sound power level is an absolute value that a sound source generates. Sound Power: ODU and IDU operation mode is "Cooling" and hydro unit is "Heating".

<sup>3</sup> ODU: Outdoor Unit, IDU: Indoor Unit

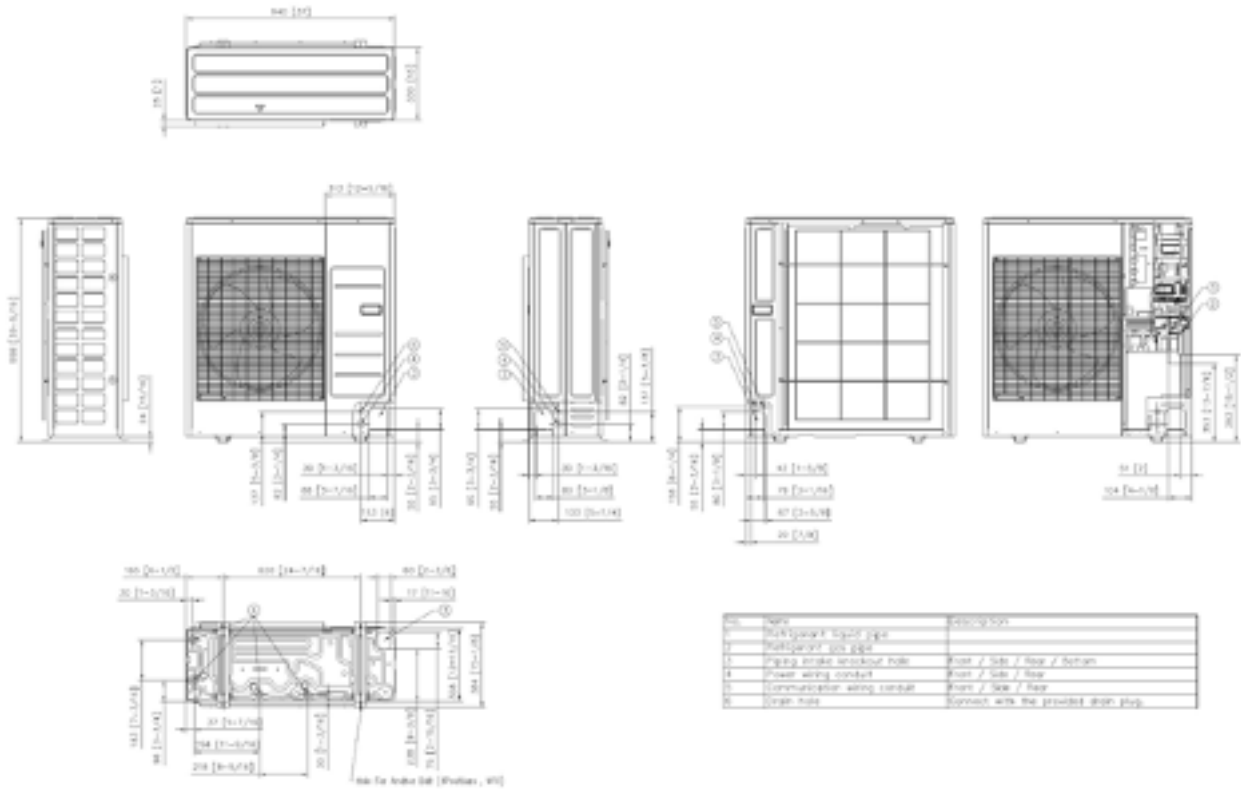


# Dimensional drawings

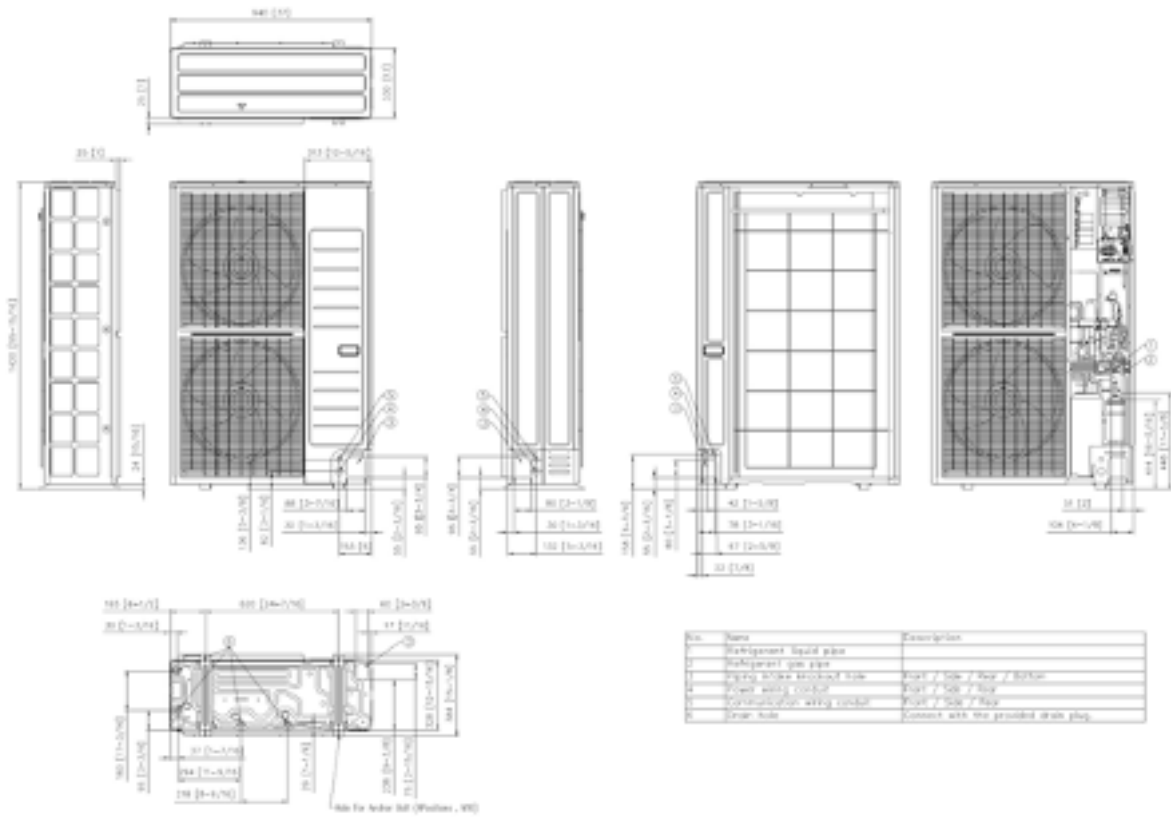
## DVM S Eco Heat Pump

AM040BXMDEH/EU, AM050BXMDEH/EU

Units: mm [inches]



NO	Name	Description
<b>4/5 hp</b>		
1	Refrigerant liquid pipe	Ø9.52 (ø3/8)
2	Refrigerant gas pipe	Ø15.88 (ø5/8)
3	Knock-out hole for pipe intake	Front/Side/Rear/Bottom
4	Power wiring conduits	Front/Side/Rear, Ø34.00 (ø1 3/8)
5	Communication wiring conduits	Front/Side/Rear, Ø22.00 (ø7/8)
6	Drain holes	Connect with the provided drain plug.

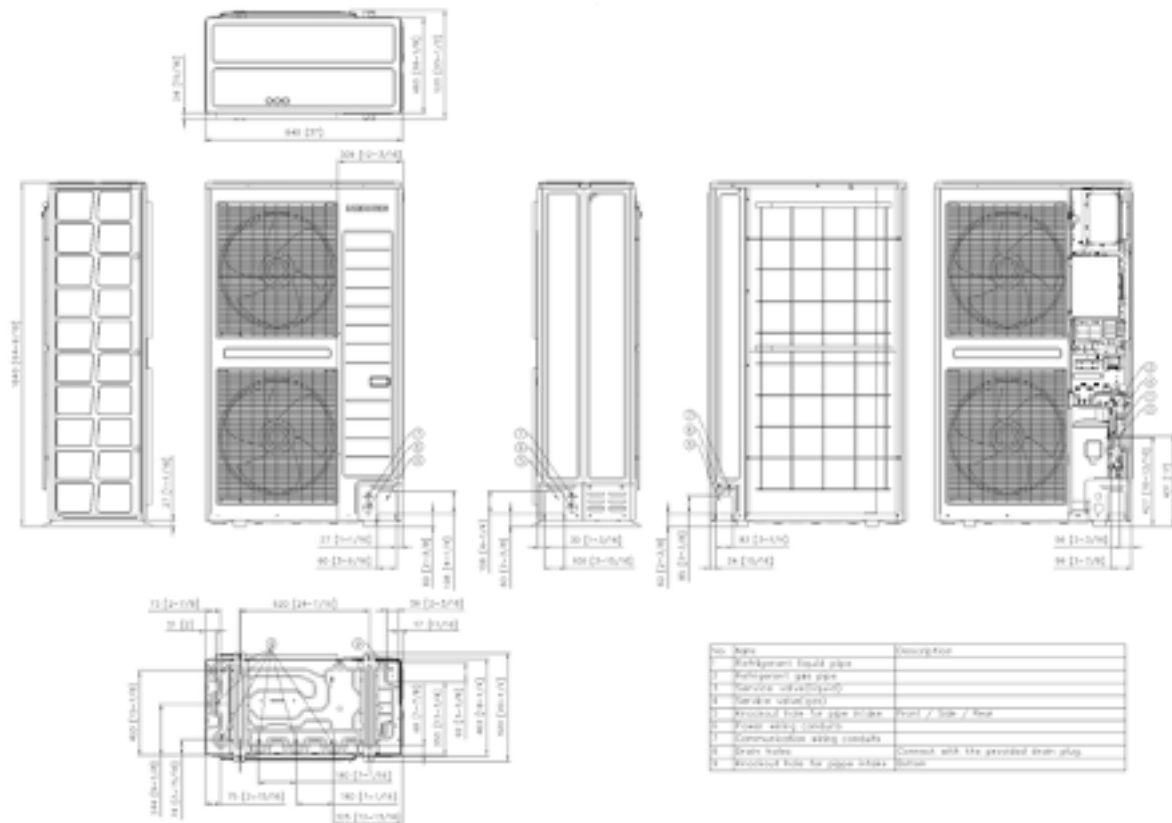


NO	Name	Description
<b>8 hp</b>		
1	Refrigerant gas pipe	ø19.05 (ø3/4)
2	Refrigerant liquid pipe	ø9.52 (ø3/8)
3	Knock-out hole for pipe intake	Front/Side/Rear/Bottom
4	Power wiring conduits	Front/Side/Rear, ø34.00 (ø1 3/8)
5	Communication wiring conduits	Front/Side/Rear, ø22.00 (ø7/8)
6	Drain holes	Connect with the provided drain plug.

# Dimensional drawings

## DVM S Eco Heat Pump

AM100BXMWGH/EU, AM120BXMWGH/EU



NO	Name	Description	
		10 hp	12 hp
1	Refrigerant liquid pipe	ø9.52 (ø3/8)	ø12.70 (ø1/2)
2	Refrigerant gas pipe	ø22.28 (ø5/8)	ø28.58 (ø3/4)
3	Service valve (gas)		
4	Service valve (liquid)		
5	Knock-out hole for pipe intake		Front/Side/Rear
6	Power wiring conduits		Front/Side/Rear, ø44 (ø1 3/4)
7	Communication wiring conduits		Front/Side/Rear, ø28 (ø1 1/8)
8	Drain holes		Connect with the provided drain plug.
9	Knock-out hole for pipe intake		Bottom





# Specifications

## DVM S2 Essential Heat Pump (2-Pipe)

- Erp (Ecodesign) compliant and Eurovent certified.
- Advanced Flash Injection™ technology.
- Active AI Pressure Control.
- Active AI Defrost.
- Active AI Refrigerant analysis.
- Durafin™ Ultra Heat Exchanger Fin.
- Optional Slimmer Liquid Pipe.
- On-device Inverter Checker™.



Model				AM100AXVDGH/EU	AM120AXVDGH/EU	AM140AXVDGH/EU
Power Supply		Φ, #, V, Hz		3Φ, 4, 380–415 V, 50 Hz	3Φ, 4, 380–415 V, 50 Hz	3Φ, 4, 380–415 V, 50 Hz
Performance	HP	HP		10	12	14
	Capacity	Cooling (Rated)	kW	28.0	33.6	40.0
		Heating (Rated)	kW	28.0	33.6	40.0
		Heating (Max)	kW	31.5	37.8	45.0
	Maximum number of connectable indoor units		ea	18	21	26
	Total capacity of the connected indoor units	Min.	kW	14.0	16.8	20.0
Max.		kW	36.4	43.7	52.0	
Power	Current Input	Cooling (Rated)	A	20.50	22.01	28.60
		Heating (Rated)	A	14.34	16.45	20.91
	Current	Minimum SSC value	MVA	3.7	4.0	4.6
		MCA	A	23.0	25.0	29.0
		MFA	A	32	32	32
Energy efficiency <sup>1</sup>	SEER	W/W	6.00	6.40	6.20	
	SCOP	W/W	4.10	4.30	4.10	
	ηs.c	%	237	253	245	
	ηs.h	%	161	169	161	
Compressor	Type	-	Inverter Scroll x1	Inverter Scroll x1	Inverter Scroll x1	
	Output	kW x n	6.67 x 1	6.67 x 1	6.67 x 1	
	Oil	Type	-	PVE	PVE	PVE
Initial Charge		cc x n	1,100 x 1	1,100 x 1	1,100 x 1	
Fan	Type	-	Propeller	Propeller	Propeller	
	Discharge direction	-	Vertical	Vertical	Vertical	
	Number of Fans	ea	1	1	1	
	Airflow Rate		m <sup>3</sup> /min	167	196	210
			l/s	2,779	3,260	3,500
	External Static Pressure	Max.	mmAq	11	11	8
Fan Motor	Type	-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output	W x n	630 x 1	630 x 1	630 x 1	
Piping Connections	Liquid Pipe	ø, mm	9.52	12.70	12.70	
		ø, inch	3/8	1/2	1/2	
	Gas Pipe	ø, mm	22.22	28.58	28.58	
		ø, inch	7/8	1 1/8	1 1/8	
	Piping length (ODU-IDU) <sup>1</sup>	Max. (Equiv.)	m	200 [220]	200 [220]	200 [220]
	Piping length (1st Branch - IDU) <sup>3</sup>	Max.	m	90	90	90
	Total piping length (System)	Max.	m	1,000	1,000	1,000
	Level difference (ODU in highest position) <sup>1</sup>	Max.	m	110	110	110
Level difference (IDU in highest position) <sup>1</sup>	Max.	m	110	110	110	
Wiring Connections	Transmission Cable	Min.	mm <sup>2</sup>	0.75	0.75	0.75
	Remark	-		F1, F2	F1, F2	F1, F2
Refrigerant	Type	-		R410A (Fluorinated greenhouse gas, GWP=2,088)		
	Factory Charging		kg	5.5	7.0	7.0
			tCO <sub>2</sub> e	11.48	14.62	14.62
Sound	Sound Pressure <sup>2</sup>	Cooling	dB(A)	56	61	63
		Heating	dB(A)	60	63	65
	Sound Power	Cooling	dB(A)	78	81	85
External Dimensions	Net Weight		kg	185	205	207
	Net Dimensions (W x H x D)		mm	930 x 1,695 x 765	930 x 1,695 x 765	930 x 1,695 x 765
Operating Temperature Range	Cooling		°C	-5-50	-5-50	-5-50
	Heating		°C	-25-24	-25-24	-25-24



AM160AXVDGH/EU	AM180AXVDGH/EU
3Ø, 4, 380-415 V, 50 Hz	3Ø, 4, 380-415 V, 50 Hz
16	18
45.0	50.4
45.0	50.4
50.4	56.7
29	32
22.5	25.2
58.5	65.5
31.04	37.61
22.38	24.75
5.2	6.3
32.0	39.2
40	50
6.30	5.90
4.20	4.10
249	233
165	161
Inverter Scroll x1	Inverter Scroll x1
8.93 x1	8.93 x1
PVE	PVE
1,400 x1	1,400 x1
Propeller	Propeller
Vertical	Vertical
2	2
303	324
5,052	5,401
11	11
110	110
BLDC Motor	BLDC Motor
620 x 2	620 x 2
12.70	15.88
1/2	5/8
28.58	28.58
11/8	11/8
200 [220]	200 [220]
90	90
1,000	1,000
110	110
110	110
50	50
0.75	0.75
F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP=2,088)	
8.0	8.0
16.70	16.70
60	61
62	64
81	83
242	242
1,295 x 1,695 x 765	1,295 x 1,695 x 765
-5-50	-5-50
-25-24	-25-24

<sup>1</sup> Performances are based on the following test conditions:  
 - Cooling: Indoor temperature: 27 °C DB, 19 °C WB,  
 Outdoor temperature: 35 °C DB, 24 °C WB  
 - Heating: Indoor temperature: 20 °C DB, 15 °C WB,  
 Outdoor temperature: 7 °C DB, 6 °C WB  
 - Equivalent refrigerant piping: 7.5 m, Level differences: 0 m

<sup>2</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions. Sound power level is an absolute value that a sound source generates. Sound Power: ODU and IDU operation mode is "Cooling" and hydro unit is "Heating".

<sup>3</sup> ODU: Outdoor Unit, IDU: Indoor Unit

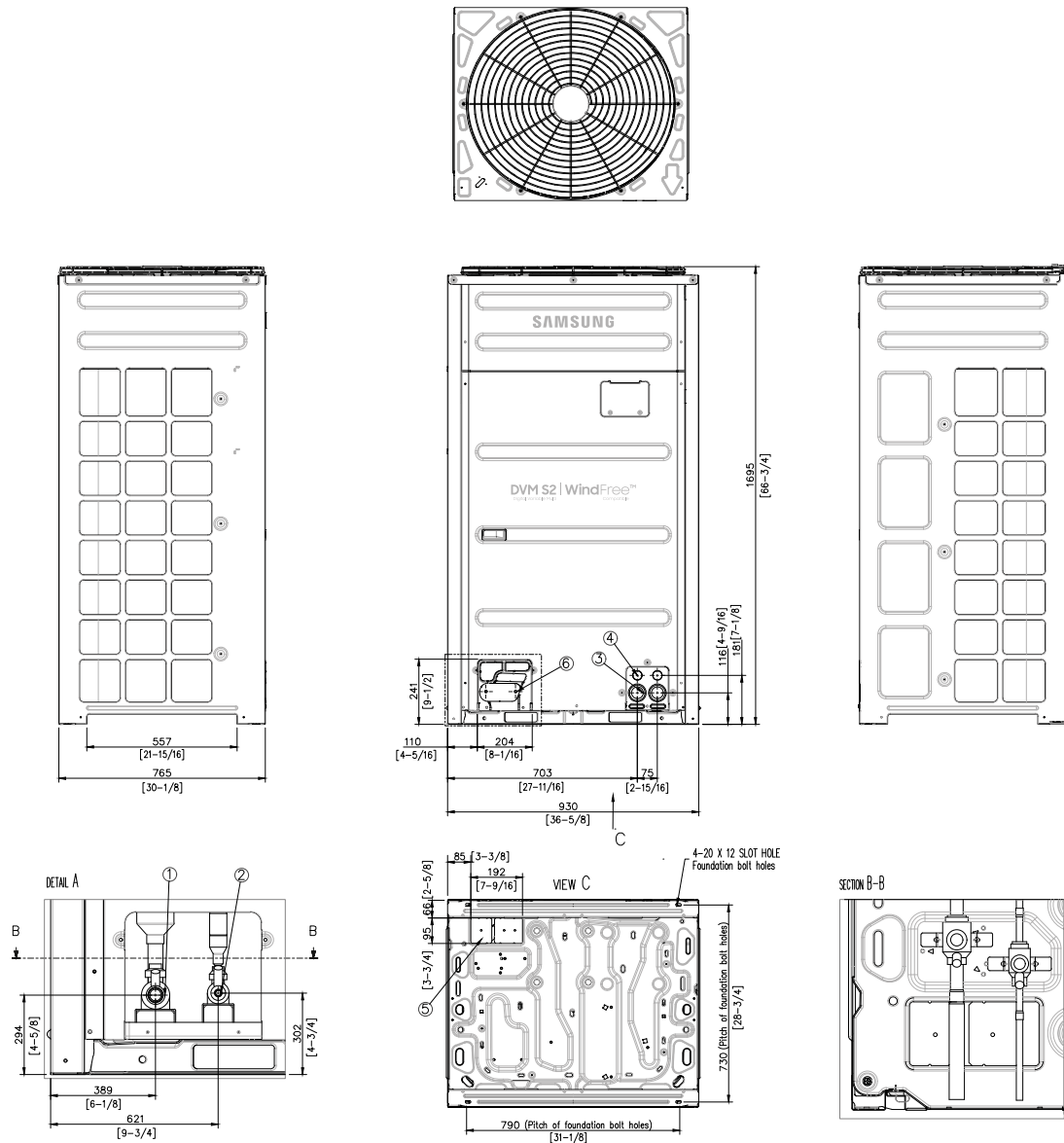


# Dimensional drawings

## DVM S2 Essential Heat Pump (2-Pipe)

AM100/120/140AXVDGH/EU

Units: mm [inches]

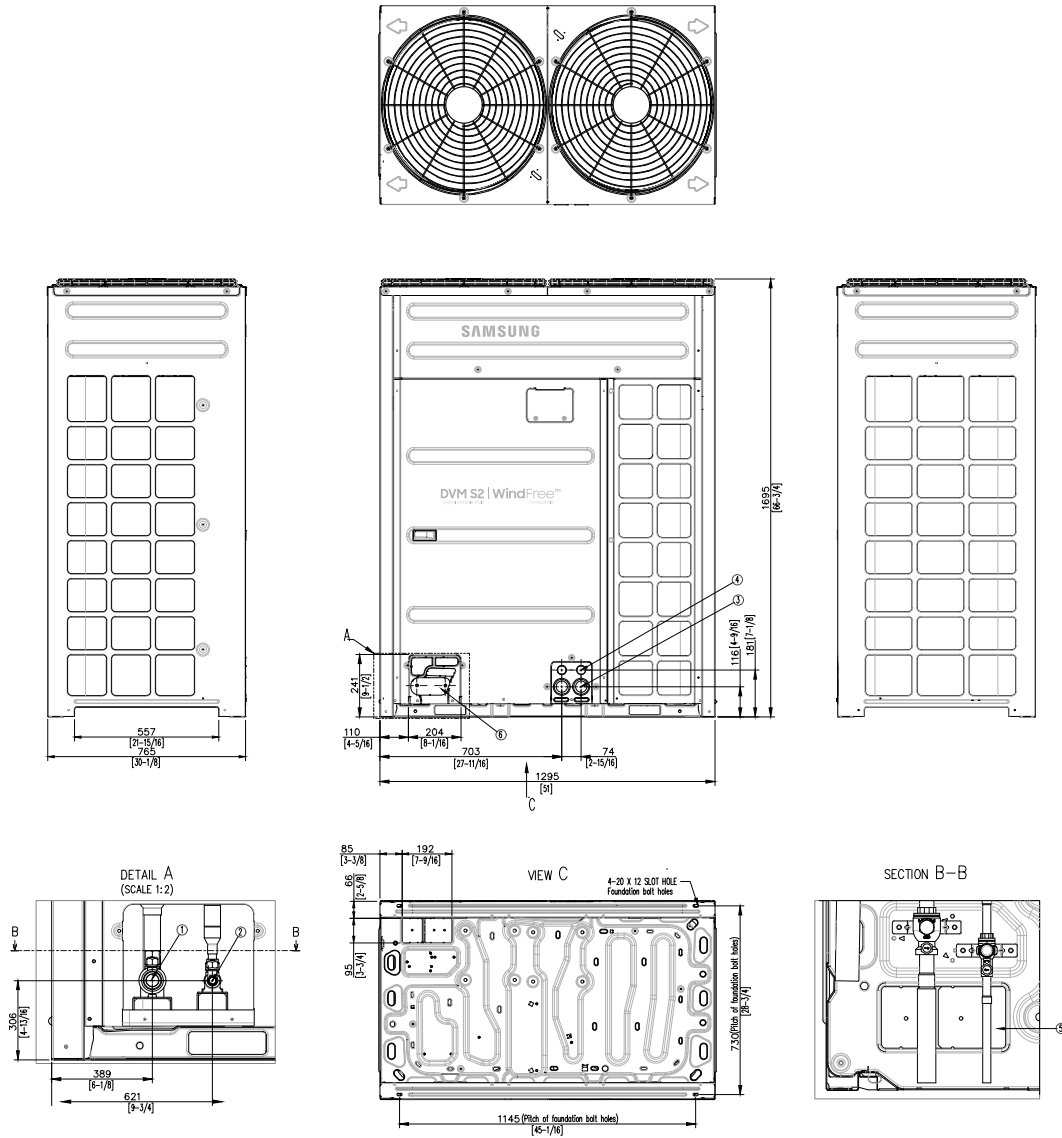


NO	Name	Description
1	Gas Ref.pipe	See NOTE 4.
2	Liquid Ref.pipe	See NOTE 4.
3	Power wiring conduit	Ø44
4	Communication wiring conduit	Ø34
5	Knock-out Hole for Ref.Piping (bottom)	
6	Knock-out Hole for Ref.Piping (front)	

Note:  
 1. Detail A and SECTION B-B indicate the dimension after fixing the attached piping.  
 2. Item 3-6: Knock-out hole  
 3. View C indicate the dimension of knock-out hole (bottom)  
 4. Pipe [Ø, mm(inch)]: Brazing connection

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





NO	Name	Description
1	Gas Ref.pipe	See NOTE 4.
2	Liquid Ref.pipe	See NOTE 4.
3	Power wiring conduit	Ø44
4	Communication wiring conduit	Ø34
5	Knock-out Hole for Ref.Piping (bottom)	
6	Knock-out Hole for Ref.Piping (front)	

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

Note:  
 1. Detail A and SECTION B-B indicate the dimension after fixing the attached piping.  
 2. Item 3-6: Knock-out hole  
 3. View C indicate the dimension of knock-out hole (bottom)  
 4. Pipe [Ø, mm(inch)]: Brazing connection

# Specifications

## DVM S2 Standard Heat Pump (2-Pipe)

- Erp (Ecodesign) compliant and Eurovent certified.
- Advanced Flash Injection™ technology.
- Active AI Pressure Control.
- Active AI Defrost.
- Active AI Refrigerant analysis.
- Durafin™ Ultra Heat Exchanger Fin.
- Optional Slimmer Liquid Pipe.
- On-device Inverter Checker™.



Model				AM080AXVAGH/EU	AM100AXVAGH/EU	AM120AXVAGH/EU	
Power Supply		Φ, #, V, Hz		3Φ, 4, 380–415 V, 50 Hz	3Φ, 4, 380–415 V, 50 Hz	3Φ, 4, 380–415 V, 50 Hz	
Performance	HP	HP		8	10	12	
	Capacity	Cooling	kW	22.4	28.0	33.6	
		Heating	kW	22.4	28.0	33.6	
	Maximum number of connectable indoor units		ea	14	18	21	
	Total capacity of the connected indoor units	Min.	kW	11.2	14.0	16.8	
Max.		kW	29.1	36.4	43.7		
Power	Current Input	Cooling	A	12.60	18.41	19.83	
		Heating	A	9.50	12.90	14.82	
	Current	MCA	A	18.0	23.0	25.0	
		MFA	A	25	32	32	
Energy Efficiency <sup>1</sup>	SEER	W/W		6.5	6.2	6.6	
	SCOP	W/W		4.2	4.2	4.4	
	ηs.c	%		257	245	261	
	ηs.h	%		165	165	173	
Compressor	Output		kW x n	4.39 x 1	6.67 x 1	6.67 x 1	
	Oil	Type	-	PVE	PVE	PVE	
		Initial Charge		cc x n	900 x 1	1,100 x 1	1,100 x 1
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction		-	Vertical	Vertical	Vertical	
	Number of Fans		ea	1	1	1	
	Airflow Rate		m <sup>3</sup> /min		151	167	196
			L/s		2,515.00	2,779.00	3,260.00
External Static Pressure	Max.		mmAq	11	11	11	
			Pa	110	110	110	
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output		W x n	630 x 1	630 x 1	630 x 1	
Piping Connections	Liquid Pipe		ø, mm	9.52	9.52	12.70	
			ø, inch	3/8	3/8	1/2	
	Gas Pipe		ø, mm	19.05	22.22	28.58	
			ø, inch	3/4	7/8	1 1/8	
	Piping length (ODU-IDU) <sup>3</sup>	Max. (Equiv.)	m	200 [220]	200 [220]	200 [220]	
	Piping length (1st Branch - IDU) <sup>3</sup>	Max.	m	90	90	90	
	Total piping length (System)	Max.	m	1,000	1,000	1,000	
	Level difference (ODU in highest position) <sup>3</sup>	Max.	m	110	110	110	
	Level difference (IDU in highest position) <sup>3</sup>	Max.	m	110	110	110	
	Level Difference (IDU-IDU) <sup>3</sup>	Max.	m	50	50	50	
Wiring Connections	Transmission Cable		mm <sup>2</sup>	0.75	0.75	0.75	
	Remark		-	F1, F2	F1, F2	F1, F2	
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Factory Charging		kg	5.5	5.5	7.0	
		tCO <sub>2</sub> e		11.48	11.48	14.62	
Sound	Sound Pressure <sup>2</sup>	Cooling	dB(A)	53	56	61	
		Heating	dB(A)	58	60	63	
	Sound Power	Cooling	dB(A)	75	78	81	
External Dimensions	Net Weight		kg	175	185	205	
	Net Dimensions (W x H x D)		mm	930 x 1,695 x 765	930 x 1,695 x 765	930 x 1,695 x 765	
Operating Temperature Range	Cooling		°C	-5~50	-5~50	-5~50	
	Heating		°C	-25~24	-25~24	-25~24	

- <sup>1</sup> Performances are based on the following test conditions:  
 - Cooling: Indoor temperature: 27 °C DB, 19 °C WB, Outdoor temperature: 35 °C DB, 24 °C WB  
 - Heating: Indoor temperature: 20 °C DB, 15 °C WB, Outdoor temperature: 7 °C DB, 6 °C WB  
 - Equivalent refrigerant piping: 7.5 m, Level differences: 0 m

<sup>2</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions. Sound power level is an absolute value that a sound source generates. Sound Power: ODU and IDU operation mode is "Cooling" and hydro unit is "Heating".

<sup>3</sup> ODU: Outdoor Unit, IDU: Indoor Unit



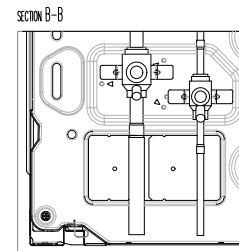
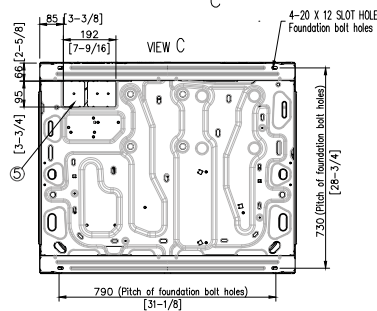
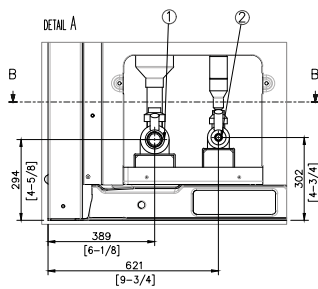
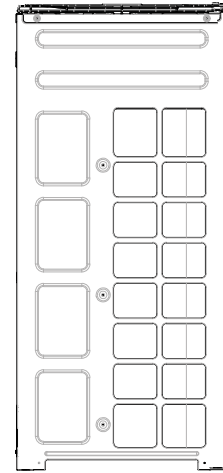
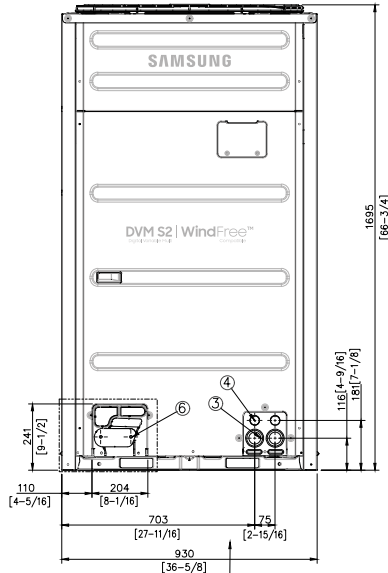
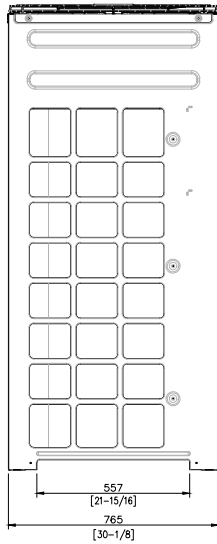
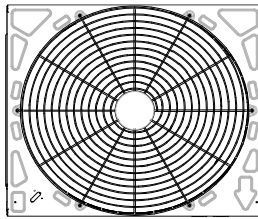
AM140AXVAGH/EU	AM160AXVAGH/EU	AM180AXVAGH/EU	AM200AXVAGH/EU	AM220AXVAGH/EU	AM240AXVAGH/EU	AM260AXVAGH/EU
3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz
14	16	18	20	22	24	26
40.0	45.0	50.4	56.0	61.6	67.2	72.8
40.0	45.0	50.4	56.0	61.6	67.2	68.0
26	29	32	36	40	43	47
20.0	22.5	25.2	28.0	30.8	33.6	36.4
52.0	58.5	65.5	72.8	80.1	87.4	94.6
27.72	29.47	33.87	39.87	45.43	50.05	58.83
18.81	20.13	22.29	26.49	28.11	45.58	46.54
29.0	32.0	39.2	43.0	46.0	55.0	60.0
32	40	50	63	63	63	75
6.4	6.5	6.1	6.2	5.9	5.6	5.1
4.2	4.3	4.2	4.1	4.1	3.7	3.7
253	257	241	245	233	221	201
165	169	165	161	161	145	145
6.67 x 1	8.93 x 1	8.93 x 1	8.93 x 1	6.67 x 2	6.67 x 2	6.67 x 2
PVE	PVE	PVE	PVE	PVE	PVE	PVE
1,100 x 1	1,400 x 1	1,400 x 1	1,400 x 1	1,100 x 2	1,100 x 2	1,100 x 2
Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Vertical	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical
1	2	2	2	2	2	2
210	303	324	313	342	365	365
3,500.00	5,052.00	5,401.00	5,209.00	5,698.00	6,089.00	6,089.00
8	11	11	11	11	8	8
80	110	110	110	110	80	80
BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
630 x 1	620 x 2	620 x 2	620 x 2	620 x 2	620 x 2	620 x 2
12.70	12.70	15.88	15.88	15.88	15.88	19.05
1/2	1/2	5/8	5/8	5/8	5/8	3/4
28.58	28.58	28.58	28.58	28.58	34.92	34.92
11/8	11/8	11/8	11/8	11/8	13/8	13/8
200 [220]	200 [220]	200 [220]	200 [220]	200 [220]	200 [220]	200 [220]
90	90	90	90	90	90	90
1,000	1,000	1,000	1,000	1,000	1,000	1,000
110	110	110	110	110	110	110
110	110	110	110	110	110	110
50	50	50	50	50	50	50
0.75	0.75	0.75	0.75	0.75	0.75	0.75
F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP=2,088)						
7.0	8.0	8.0	10.5	10.5	14.0	14.0
14.62	16.70	16.70	21.92	21.92	29.23	29.23
63	60	61	61	64	65	65
65	62	64	63	65	67	67
85	81	83	84	86	87	87
207	242	242	268	301	325	325
930 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
-5-50	-5-50	-5-50	-5-50	-5-50	-5-50	-5-50
-25-24	-25-24	-25-24	-25-24	-25-24	-25-24	-25-24

# Dimensional drawings

## DVM S2 Standard Heat Pump (2-Pipe)

AM080/100/120/140AXVAGH/EU

Units: mm [inches]

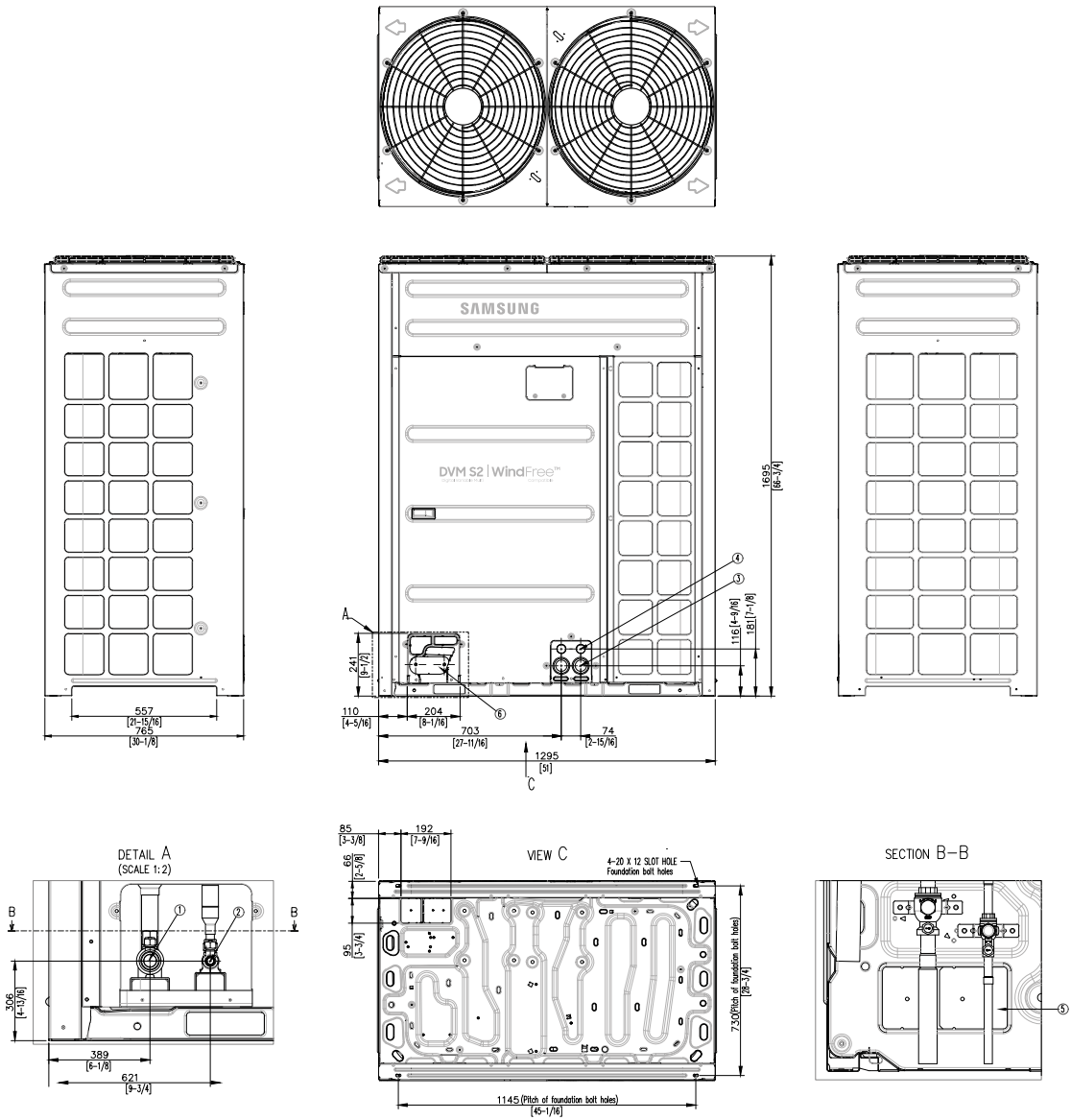


NO	Name	Description
1	Gas Ref.pipe	See NOTE 4.
2	Liquid Ref.pipe	See NOTE 4.
3	Power wiring conduit	Ø44
4	Communication wiring conduit	Ø34
5	Knock-out Hole for Ref.Piping (bottom)	
6	Knock-out Hole for Ref.Piping (front)	

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

Note:  
 1. Detail A and SECTION B-B indicate the dimension after fixing the attached piping.  
 2. Item 3-6: Knock-out hole  
 3. View C indicate the dimension of knock-out hole (bottom)  
 4. Pipe [Ø, mm(inch)]: Brazing connection





NO	Name	Description
1	Gas Ref.pipe	See NOTE 4.
2	Liquid Ref.pipe	See NOTE 4.
3	Power wiring conduit	Ø44
4	Communication wiring conduit	Ø34
5	Knock-out Hole for Ref.Piping (bottom)	
6	Knock-out Hole for Ref.Piping (front)	

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

Note:  
 1. Detail A and SECTION B-B indicate the dimension after fixing the attached piping.  
 2. Item 3-6: Knock-out hole  
 3. View C indicate the dimension of knock-out hole (bottom)  
 4. Pipe [Ø, mm (inch)]: Brazing connection

# Specifications

## DVM S2 High Efficiency Heat Pump (2-Pipe)

- Erp (Ecodesign) compliant and Eurovent certified.
- Advanced Flash Injection™ technology.
- Active AI Pressure Control.
- Active AI Defrost.
- Active AI Refrigerant analysis.
- Durafin™ Ultra Heat Exchanger Fin.
- Optional Slimmer Liquid Pipe.
- On-device Inverter Checker™.



Model				AM080AXVGGH/EU	AM100AXVGGH/EU	AM120AXVGGH/EU	
Power Supply			Φ, #, V, Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	
Performance	HP		HP	8	10	12	
	Capacity	Cooling	kW	22.4	28.0	33.6	
		Heating	kW	22.4	28.0	33.6	
	Maximum number of connectable indoor units			ea	14	18	21
	Total capacity of the connected indoor units		Min.	kW	11.2	14.0	16.8
		Max.	kW	29.1	36.4	43.7	
Power	Current Input	Cooling	A	11.44	15.97	19.25	
		Heating	A	9.09	11.41	14.37	
	Current	Minimum SSC value	MVA	3.0	3.4	4.0	
		MCA	A	18.0	21.2	25.0	
		MFA	A	25	32	32	
Energy Efficiency <sup>1</sup>	SEER		W/W	7.2	6.9	6.9	
	SCOP		W/W	4.50	4.40	4.56	
	ηs.c		%	285	273	273	
	ηs.h		%	177	173	179.4	
Compressor	Output		kW x n	4.39 x 1	6.67 x 1	6.67 x 1	
	Oil	Type	-	PVE	PVE	PVE	
		Initial Charge		cc x n	900 x 1	1,100 x 1	1,100 x 1
Fan	Type		-	Propeller	Propeller	Propeller	
	Discharge direction		-	Top	Top	Top	
	Number of Fans		ea	1	1	1	
	Airflow Rate			m <sup>3</sup> /min	164	181	196
				L/s	2,738.00	3,019.00	3,260.00
	External Static Pressure	Max.		mmAq	11	11	11
			Pa	110.00	110.00	110.00	
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output		W x n	TBD	TBD	TBD	
Piping Connections	Liquid Pipe		ø, mm	9.52	9.52	12.70	
			ø, inch	3/8	3/8	1/2	
	Gas Pipe		ø, mm	19.05	22.22	28.58	
			ø, inch	3/4	7/8	1 1/8	
	Piping length (ODU-IDU) <sup>3</sup>	Max. (Equiv.)	m	200 [220]	200 [220]	200 [220]	
	Piping length (1st Branch - IDU) <sup>3</sup>	Max.		90	90	90	
	Total piping length (System)	Max.		1,000	1,000	1,000	
	Level difference (ODU in highest position) <sup>3</sup>	Max.		110	110	110	
	Level difference (IDU in highest position) <sup>3</sup>	Max.		110	110	110	
Level Difference (IDU-IDU) <sup>3</sup>	Max.		50	50	50		
Wiring Connections	Transmission Cable		mm <sup>2</sup>	0.75	0.75	0.75	
	Remark		-	F1, F2	F1, F2	F1, F2	
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Factory Charging		kg	7.0	7.0	7.0	
			tCO <sub>2</sub> e	14.62	14.62	14.62	
Sound	Sound Pressure <sup>2</sup>	Cooling	dB(A)	53	56	61	
		Heating	dB(A)	58	60	63	
	Sound Power	Cooling	dB(A)	75	78	81	
External Dimensions	Net Weight		kg	194	205	205	
	Net Dimensions (W x H x D)		mm	930 x 1,695 x 765	930 x 1,695 x 765	930 x 1,695 x 765	
Operating Temperature Range	Cooling		°C	-5~50	-5~50	-5~50	
	Heating			-25~24	-25~24	-25~24	

- <sup>1</sup> Performances are based on the following test conditions:  
 - Cooling: Indoor temperature: 27 °C DB, 19 °C WB, Outdoor temperature: 35 °C DB, 24 °C WB  
 - Heating: Indoor temperature: 20 °C DB, 15 °C WB, Outdoor temperature: 7 °C DB, 6 °C WB  
 - Equivalent refrigerant piping: 7.5 m, Level differences: 0 m

- <sup>2</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions. Sound power level is an absolute value that a sound source generates. Sound Power: ODU and IDU operation mode is "Cooling" and hydro unit is "Heating".

- <sup>3</sup> ODU: Outdoor Unit, IDU: Indoor Unit



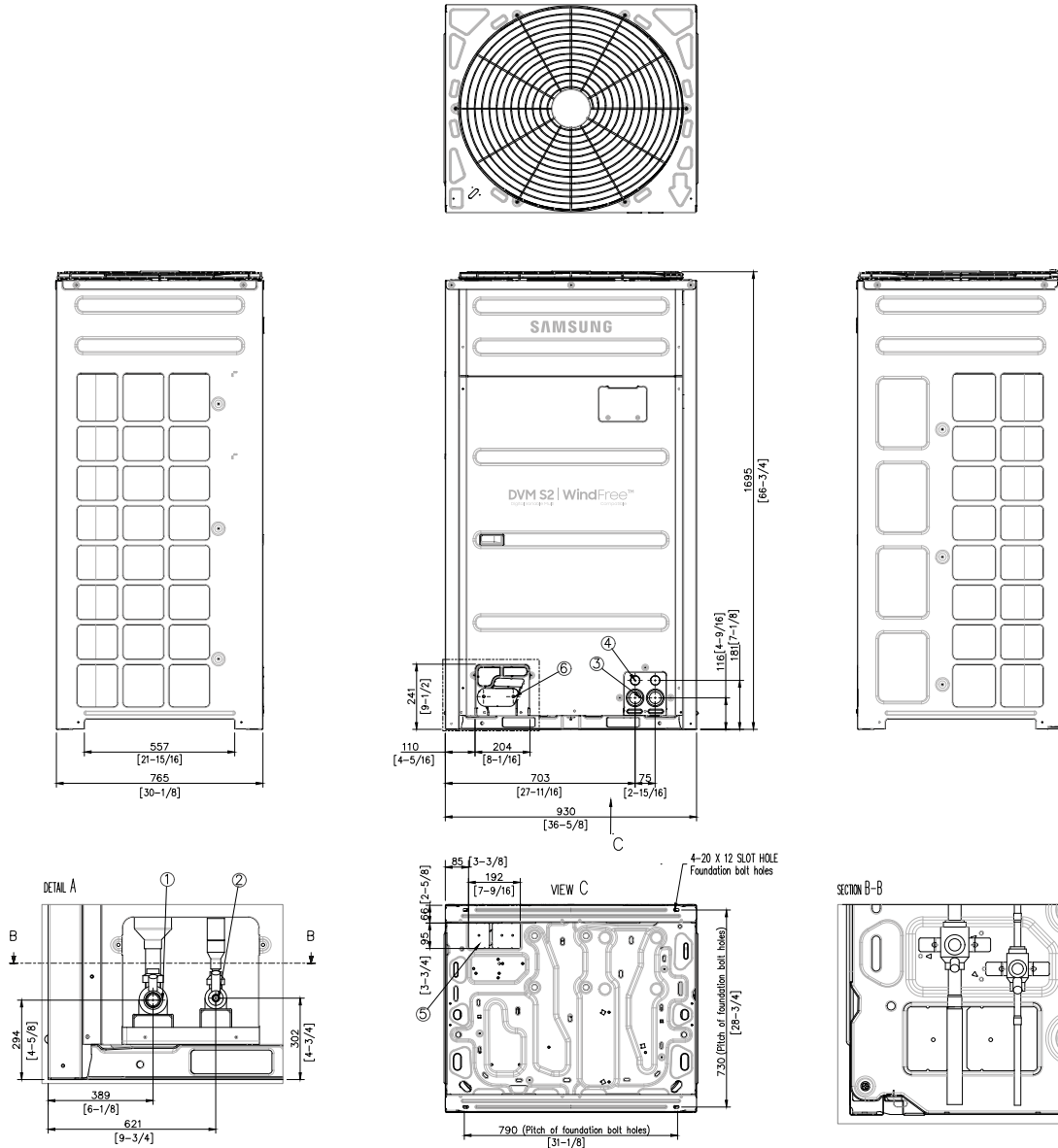
	AM140AXVGGH/EU	AM160AXVGGH/EU	AM180AXVGGH/EU	AM200AXVGGH/EU	AM220AXVGGH/EU	AM240AXVGGH/EU	AM260AXVGGH/EU
	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz
	14	16	18	20	22	24	26
	40.0	45.0	50.4	56.0	61.6	67.2	72.8
	40.0	45.0	50.4	56.0	61.6	67.2	68.0
	26	29	32	36	40	43	47
	20.0	22.5	25.2	28.0	30.8	33.6	36.4
	52.0	58.5	65.5	72.8	80.1	87.4	94.6
	25.44	26.96	26.79	38.63	44.15	48.62	57.61
	17.06	19.35	21.14	25.72	27.29	44.20	45.11
	4.4	5.2	6.4	7.0	7.4	9.3	10.2
	27.0	32.0	39.2	43.0	46.0	55.0	60.0
	32	40	50	63	63	63	75
	6.7	6.9	7.5	6.5	6.2	5.9	5.4
	4.25	4.30	4.80	4.50	4.30	3.90	3.90
	265	273	297	257	245	233	213
	167	169	189	177	169	153	153
	6.67 x 1	8.93 x 1	8.93 x 1	8.93 x 1	6.67 x 2	6.67 x 2	6.67 x 2
	PVE	PVE	PVE	PVE	PVE	PVE	PVE
	1,100 x 1	1,400 x 1	1,400 x 1	1,400 x 1	1,100 x 2	1,100 x 2	1,100 x 2
	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
	Top	Top	Top	Top	Top	Top	Top
	2	2	2	2	2	2	2
	291	292	313	313	342	365	365
	4,852.00	4,866.00	5,209.00	5,209.00	5,698.00	6,089.00	6,089.00
	11	11	11	11	11	8	8
	110.00	110.00	110.00	110.00	110.00	80.00	80.00
	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	12.70	12.70	15.88	15.88	15.88	15.88	19.05
	1/2	1/2	5/8	5/8	5/8	5/8	3/4
	28.58	28.58	28.58	28.58	28.58	34.92	34.92
	11/8	11/8	11/8	11/8	11/8	13/8	13/8
	200 [220]	200 [220]	200 [220]	200 [220]	200 [220]	200 [220]	200 [220]
	90	90	90	90	90	90	90
	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	110	110	110	110	110	110	110
	110	110	110	110	110	110	110
	50	50	50	50	50	50	50
	0.75	0.75	0.75	0.75	0.75	0.75	0.75
	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2
	R410A (Fluorinated greenhouse gas, GWP=2,088)						
	8.0	10.5	10.5	10.5	10.5	14.0	14.0
	16.70	21.92	21.92	21.92	21.92	29.23	29.23
	58	58	59	61	64	65	65
	61	61	63	63	65	67	67
	81	81	81	84	86	87	87
	233	262	268	268	301	325	325
	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
	-5-50	-5-50	-5-50	-5-50	-5-50	-5-50	-5-50
	-25-24	-25-24	-25-24	-25-24	-25-24	-25-24	-25-24

# Dimensional drawings

## DVM S2 High Efficiency Heat Pump (2-Pipe)

AM080/100/120AXVGGH/EU

Units: mm [inches]

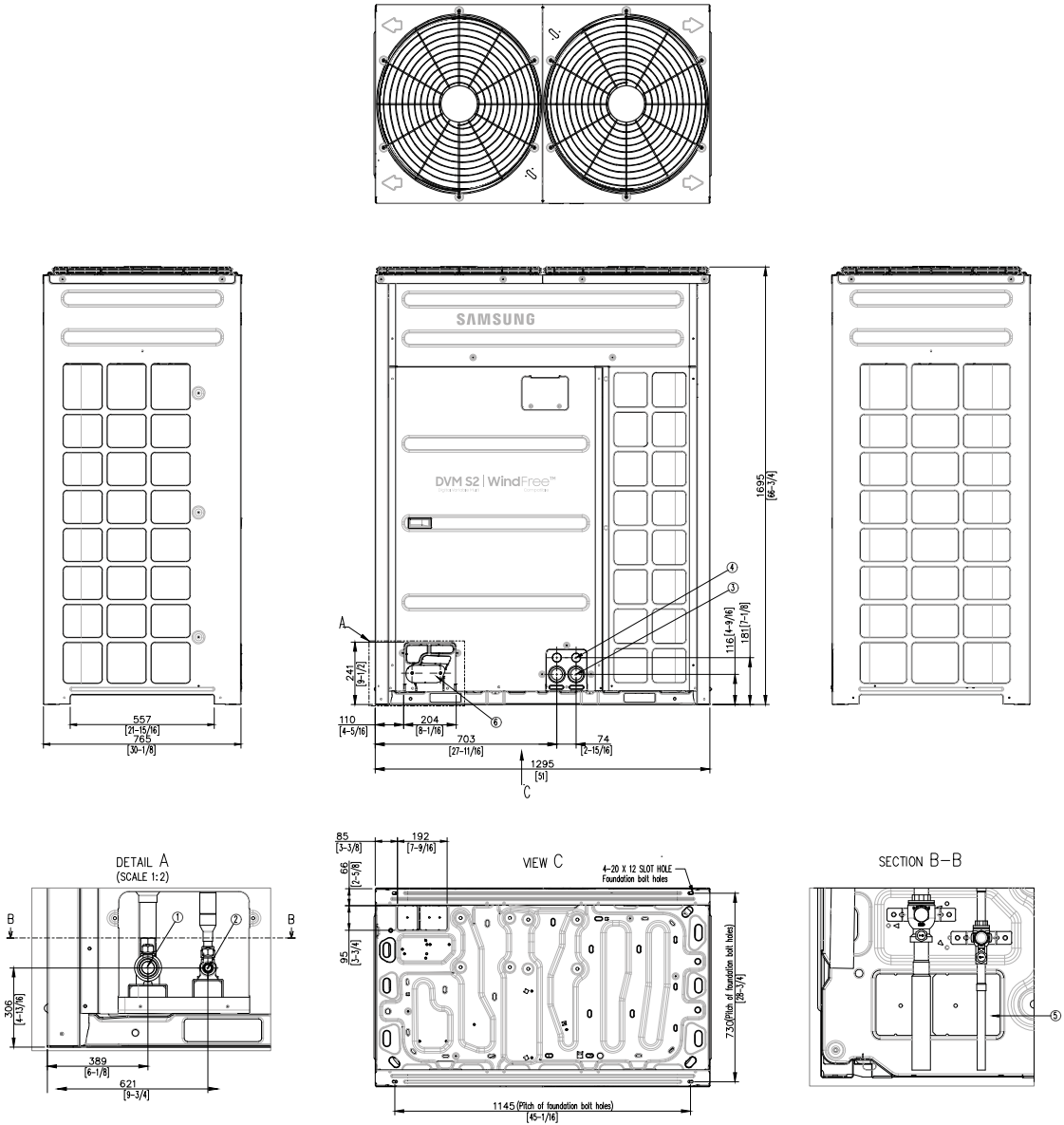


NO	Name	Description
1	Gas Ref.pipe	See NOTE 4.
2	Liquid Ref.pipe	See NOTE 4.
3	Power wiring conduit	Ø44
4	Communication wiring conduit	Ø34
5	Knock-out Hole for Ref.Piping (bottom)	
6	Knock-out Hole for Ref.Piping (front)	

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

Note:  
 1. Detail A and SECTION B-B indicate the dimension after fixing the attached piping.  
 2. Item 3-6: Knock-out hole  
 3. View C indicate the dimension of knock-out hole (bottom)  
 4. Pipe [Ø, mm(inch)]: Brazing connection





NO	Name	Description
1	Gas Ref.pipe	See NOTE 4.
2	Liquid Ref.pipe	See NOTE 4.
3	Power wiring conduit	Ø44
4	Communication wiring conduit	Ø34
5	Knock-out Hole for Ref.Piping (bottom)	
6	Knock-out Hole for Ref.Piping (front)	

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

Note:  
 1. Detail A and SECTION B-B indicate the dimension after fixing the attached piping.  
 2. Item 3-6: Knock-out hole  
 3. View C indicate the dimension of knock-out hole (bottom)  
 4. Pipe [Ø, mm(inch)]: Brazing connection

# Specifications

## DVM S Eco Heat Recovery (With Heat Recovery Changer Kit)

- Horizontal discharge and rear suction by means of two propeller BLDC Inverter fans.
- Each module houses one Twin BLDC Rotatory compressor.
- Night Silent Mode available.
- Eurovent certified and ErP (Ecodesign) compliant.
- Four-way direction piping connection.



Model				AM040BXMDER/EU	AM050BXMDER/EU	AM060BXMDER/EU
Power Supply		Φ, V, Hz		1Φ, 220–240 V, 50 Hz	1Φ, 220–240 V, 50 Hz	1Φ, 220–240 V, 50 Hz
Performance	HP	HP		4	5	6
	Capacity	Cooling	kW	12.1	14.0	15.5
Heating		kW	12.1	14.0	15.5	
Power	Power Input (Nominal)	Cooling	kW	3.87	5	5.74
		Heating	kW	3.04	3.83	4.43
	Current Input (Nominal)	Cooling	A	17.7	22.9	26.3
		Heating	A	13.9	17.5	20.3
	Current	MCA	A	22	24	30
		MFA	A	25	32	40
Energy Efficiency <sup>1</sup>	EER (Nominal Cooling)	W/W	3.13	2.8	2.7	
	COP (Nominal Heating)	W/W	3.98	3.66	3.5	
	SEER (Cassette)	W/W	7.9	7.4	7.75	
	SCOP (Cassette)	W/W	4.65	4.65	4.9	
Compressor	Type	-	Twin BLDC Rotary	Twin BLDC Rotary	Twin BLDC Rotary	
	Output	kW x n	4.04 x 1	4.04 x 1	4.04 x 1	
	Oil	Type	-	PVE	PVE	PVE
Initial Charge		cc	1,700	1,700	1,700	
Fan	Type & Discharge direction	-	Propeller	Propeller	Propeller	
		-	Horizontal	Horizontal	Horizontal	
	Number of Fans	ea	2	2	2	
	Airflow Rate	(H/M/L)	m <sup>3</sup> /min	100	100	100
			L/s	1,667	1,667	1,667
	External Static Pressure	Max.	mmAq	3	3	3
Pa			29.4	29.4	29.4	
Fan Motor	Model	-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output x n	W x n	125.0 x 2	125.0 x 2	125.0 x 2	
Piping Connections	Liquid Pipe	ø, mm	9.52	9.52	9.52	
		ø, inch	3/8	3/8	3/8	
	Gas Pipe	ø, mm	15.88	15.88	15.88	
		ø, inch	5/8	5/8	5/8	
	Discharge Gas Pipe	ø, mm	15.88	15.88	15.88	
		ø, inch	5/8	5/8	5/8	
	Piping length (ODU-IDU)	Max. [Equiv.]	m	150 (75)	150 (75)	150 (75)
	Piping length (1st Branch-IDU)	Max	m	40	40	40
	Total Piping length (System)	Max	m	300	300	300
	Level difference (ODU in highest position)	Max	m	50	50	50
	Level difference (IDU in highest position)	Max	m	40	40	40
	Level difference (IDU-ODU)	Max	m	50	50	50
	Wiring Connections	Communication	Min.	m	0.75	0.75
Remark		-	F1, F2	F1, F2	F1, F2	
Refrigerant	Type	-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Factory Charging	kg	3.2	3.2	3.3	
		kg / tCO <sub>2</sub> e	6.68	6.68	6.89	
Sound	Sound Pressure <sup>2</sup> (Cooling)	dB(A)	51	52	53	
	Sound Pressure <sup>2</sup> (Heating)	dB(A)	55	55	55	
	Sound Power	dB(A)	68	69	70	
External Dimensions	Net Weight	kg	97	97	100	
	Net Dimensions (W x H x D)	mm	940 x 1,210 x 330	940 x 1,210 x 330	940 x 1,210 x 330	
Operating Temperature Range	Cooling	°C	-5.0–48.0	-5.0–48.0	-5.0–48.0	
	Heating	°C	-25.0–26.0	-25.0–26.0	-25.0–26.0	



AM040BXMDGR/EU	AM050BXMDGR/EU	AM060BXMDGR/EU
3Ø, 380-415 V, 50 Hz	3Ø, 380-415 V, 50 Hz	3Ø, 380-415 V, 50 Hz
4	5	6
12.1	14.0	15.5
12.1	14.0	15.5
3.87	5	5.74
3.04	3.83	4.43
5.9	7.6	8.7
4.6	5.8	6.7
16.1	16.1	16.1
20	20	20
3.13	2.8	2.7
3.98	3.66	3.5
7.9	7.4	7.75
4.65	4.65	4.9
Twin BLDC Rotary	Twin BLDC Rotary	Twin BLDC Rotary
4.04 x 1	4.04 x 1	4.04 x 1
PVE	PVE	PVE
1,700	1,700	1,700
Propeller	Propeller	Propeller
Horizontal	Horizontal	Horizontal
2	2	2
100	100	100
1,667	1,667	1,667
3	3	3
29.4	29.4	29.4
BLDC Motor	BLDC Motor	BLDC Motor
125.0 x 2	125.0 x 2	125.0 x 2
9.52	9.52	9.52
3/8	3/8	3/8
15.88	15.88	15.88
5/8	5/8	5/8
15.88	15.88	15.88
5/8	5/8	5/8
150 (75)	150 (75)	150 (75)
40	40	40
300	300	300
50	50	50
40	40	40
50	50	50
0.75	0.75	0.75
F1, F2	F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP=2,088)		
3.2	3.2	3.3
6.68	6.68	6.89
51	52	53
55	55	55
68	69	70
95	95	98
940 x 1,210 x 330	940 x 1,210 x 330	940 x 1,210 x 330
-5.0-48.0	-5.0-48.0	-5.0-48.0
-25.0-26.0	-25.0-26.0	-25.0-26.0

<sup>1</sup> Performances are based on the following test conditions:  
 - Cooling: Indoor temperature: 27 °C DB, 19 °C WB,  
 Outdoor temperature: 35 °C DB, 24 °C WB  
 - Heating: Indoor temperature: 20 °C DB, 15 °C WB,  
 Outdoor temperature: 7 °C DB, 6 °C WB  
 - Equivalent refrigerant piping: 7.5 m, Level differences: 0 m

<sup>2</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions. Sound power level is an absolute value that a sound source generates. Sound Power: ODU and IDU operation mode is "Cooling" and hydro unit is "Heating".

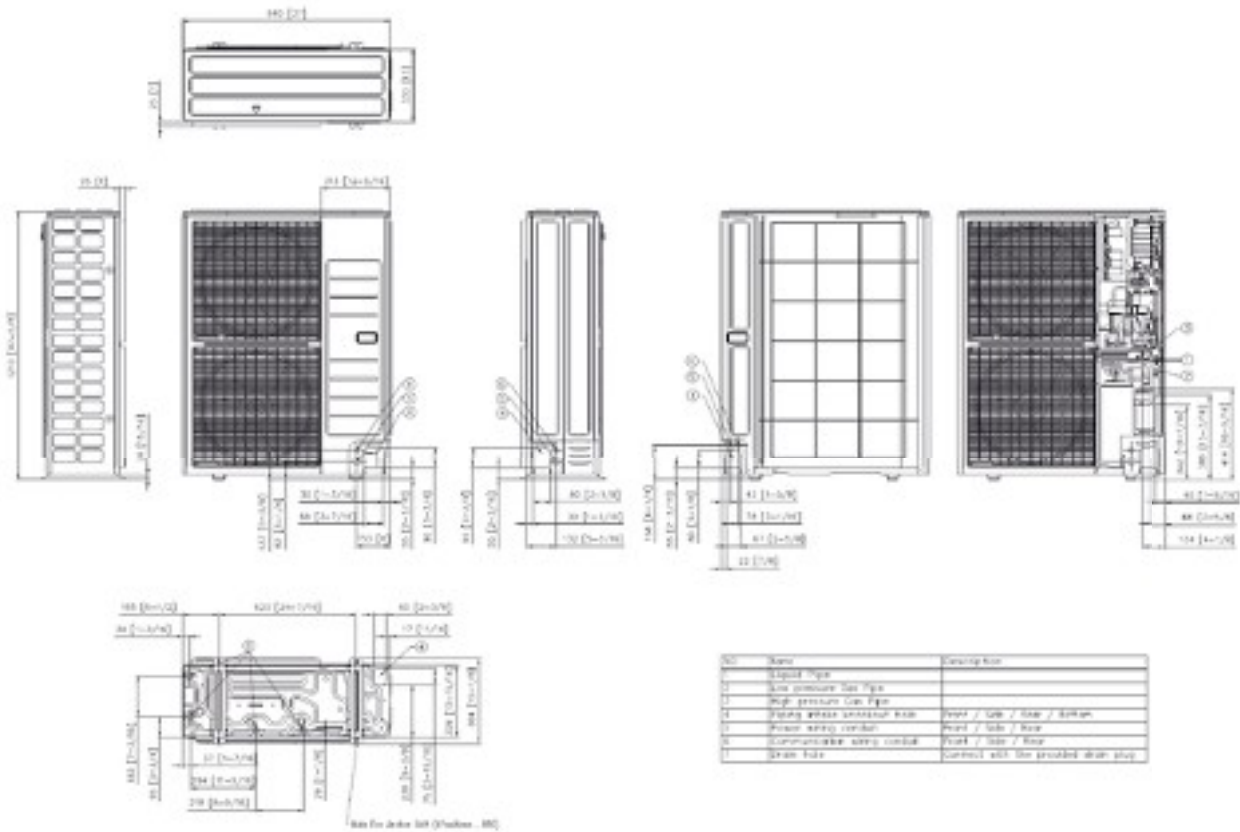


# Dimensional drawings

## DVM S Eco Heat Recovery (With Heat Recovery Changer Kit)

AM040BXMDER/EU, AM050BXMDER/EU, AM060BXMDER/EU

Units: mm [inches]



NO	Name	Description	
		4/5 hp	6 hp
1	Refrigerant liquid pipe	ø9.52 (ø3/8)	
2	Refrigerant gas pipe	ø15.88 (ø5/8)	ø19.05 (ø3/4)
3	Knock-out hole for pipe intake	Front/Side/Rear/Bottom	
4	Power wiring conduits	Front/Side/Rear, ø34.00 (ø1 3/8)	
5	Communication wiring conduits	Front/Side/Rear, ø22.00 (ø7/8)	
6	Drain holes	Connect with the provided drain plug.	





# Specifications

## DVM S2 High EER Heat Recovery (3-Pipe)

- Erp (Ecodesign) compliant and Eurovent certified.
- Advanced Flash Injection™ technology.
- Active AI Pressure Control.
- Active AI Defrost.
- Active AI Refrigerant analysis.
- Durafin™ Ultra Heat Exchanger Fin.
- Optional Slimmer Liquid Pipe.
- On-device Inverter Checker™.



Model				AM080AXVGGR/EU	AM100AXVGGR/EU	AM120AXVGGR/EU	
Power Supply		Φ, #, V, Hz		3Φ, 4, 380–415 V, 50 Hz	3Φ, 4, 380–415 V, 50 Hz	3Φ, 4, 380–415 V, 50 Hz	
Mode		-		HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	
Performance	HP	-		8	10	12	
	Capacity	Cooling	kW	22.4	28.0	33.6	
		Heating	kW	22.4	28.0	33.6	
	Maximum number of connectable indoor units		ea		14	18	21
	Total capacity of the connected indoor units		Min.	kW	11.2	14.0	16.8
		Max.	kW	29.1	36.4	43.7	
Power	Current Input	Cooling	A	11.44	15.97	19.25	
		Heating	A	9.09	11.41	14.37	
	Current	Minimum SSC value	MVA	3.0	3.4	4.0	
		MCA	A	18.0	21.1	25.0	
		MFA	A	25	32	32	
Energy Efficiency <sup>1</sup>	SEER	W/W		7.2	6.9	6.9	
	SCOP	W/W		4.5	4.4	4.56	
	ηs.c	%		285	273	273	
	ηs.h	%		177	173	179.4	
Compressor	Output	-		4.39 x 1	6.67 x 1	6.67 x 1	
	Oil	Type	-	PVE	PVE	PVE	
		Initial Charge	cc x n		900 x 1	1,100 x 1	1,100 x 1
Fan	Type	-		Propeller	Propeller	Propeller	
	Discharge direction	-		Top	Top	Top	
	Number of Fans	ea		1	1	1	
	Airflow Rate	m <sup>3</sup> /min			164	181	196
		l/s			2,738	3,019	3,260
	External Static Pressure	Max.	mmAq		11	11	11
Pa			110	110	110		
Fan Motor	Type	-		BLDC Motor	BLDC Motor	BLDC Motor	
	Output	W x n		630 x 1	630 x 1	630 x 1	
Piping Connections	Liquid Pipe	ø, mm		9.52	9.52	12.70	
		ø, inch		3/8	3/8	1/2	
	Gas Pipe	ø, mm		19.05	22.22	28.58	
		ø, inch		3/4	7/8	1 1/8	
	High Pressure Gas Pipe (HR Only)		ø, mm		15.88	19.05	19.05
			ø, inch		5/8	3/4	3/4
	Piping length (ODU-IDU) <sup>3</sup>	Max. (Equiv.)	m	200 [220]	200 [220]	200 [220]	
	Piping length (1st Branch - IDU) <sup>3</sup>	Max.	m	90	90	90	
	Total piping length (System)	Max.	m	1,000	1,000	1,000	
	Level Difference (ODU in highest position) <sup>3</sup>	Max.	m	110	110	110	
Level Difference (IDU in highest position) <sup>3</sup>	Max.	m	110	110	110		
Level Difference (IDU-IDU) <sup>3</sup>	Max.	m	50	50	50		
Wiring Connections	Transmission Cable	mm <sup>2</sup>		0.75	0.75	0.75	
	Remark	-		F1, F2	F1, F2	F1, F2	
Refrigerant	Type	-		R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Factory Charging	kg		7.0	7.0	7.0	
		tCO <sub>2</sub> e		14.62	14.62	14.62	
Sound	Sound Pressure <sup>2</sup>	Cooling	dB(A)	53	56	61	
		Heating	dB(A)	58	60	63	
	Sound Power	dB(A)		75	78	81	
External Dimensions	Net Weight	kg		199	211	211	
	Net Dimensions (W x H x D)	mm		930 x 1,695 x 765	930 x 1,695 x 765	930 x 1,695 x 765	
Operating Temperature Range	Cooling	°C		-5~50	-5~50	-5~50	
	Heating	°C		-25~24	-25~24	-25~24	

- <sup>1</sup> Performances are based on the following test conditions:  
 - Cooling: indoor temperature: 27 °C DB, 19 °C WB, Outdoor temperature: 35 °C DB, 24 °C WB  
 - Heating: indoor temperature: 20 °C DB, 15 °C WB, Outdoor temperature: 7 °C DB, 6 °C WB  
 - Equivalent refrigerant piping: 7.5 m, Level differences: 0 m

- <sup>2</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions. Sound power level is an absolute value that a sound source generates. Sound Power: ODU and IDU operation mode is "Cooling" and hydro unit is "Heating".

- <sup>3</sup> ODU: Outdoor Unit, IDU: Indoor Unit



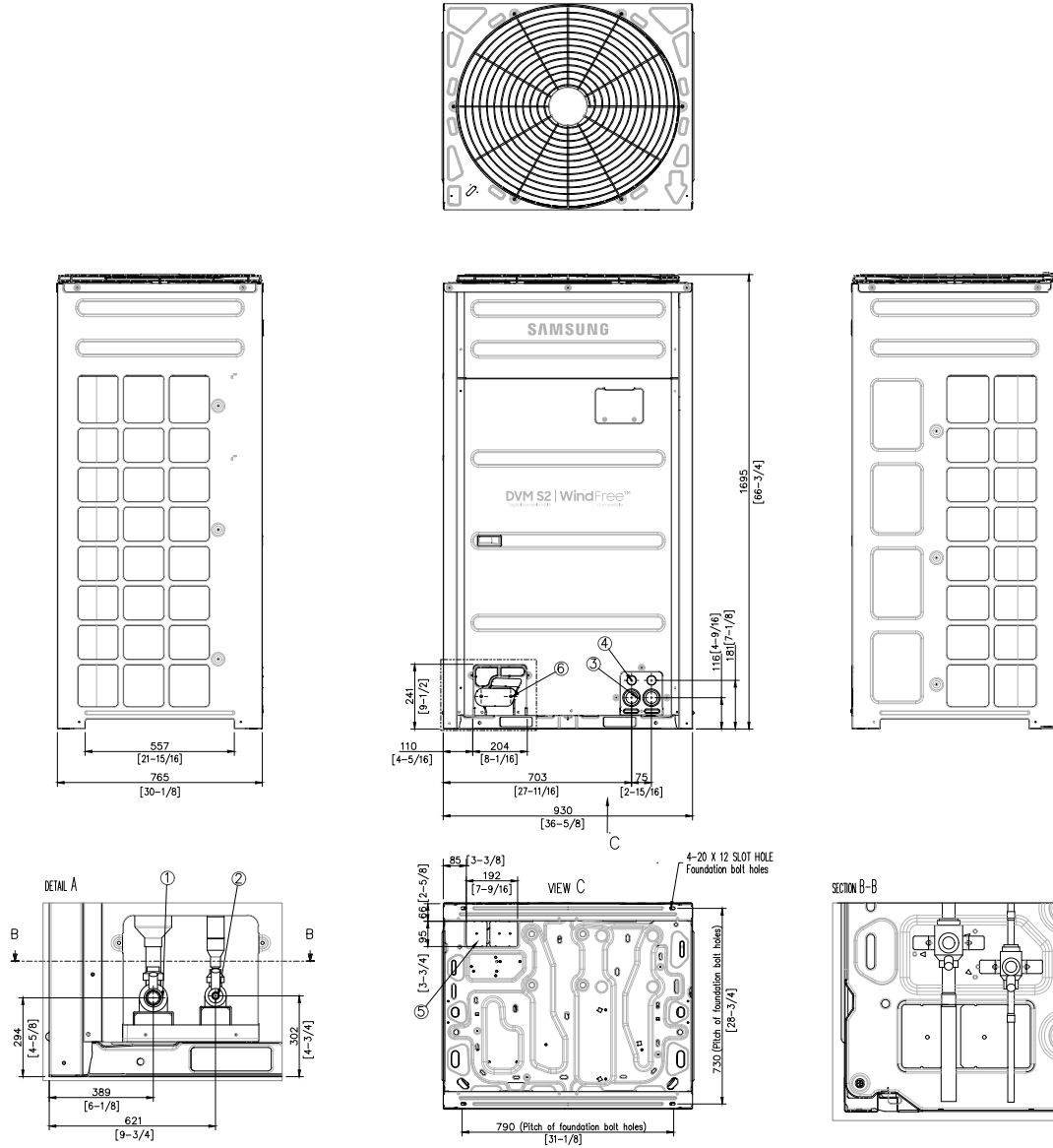
AM140AXVGGR/EU	AM160AXVGGR/EU	AM180AXVGGR/EU	AM200AXVGGR/EU	AM220AXVGGR/EU	AM240AXVGGR/EU	AM260AXVGGR/EU
3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50 Hz	3Φ, 4, 380-415 V, 50/60 Hz	3Φ, 4, 380-415 V, 50/60 Hz
HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY	HEAT RECOVERY
14	16	18	20	22	24	26
40.0	45.0	50.4	56.0	61.6	67.2	72.8
40.0	45.0	50.4	56.0	61.6	67.2	68.0
26	29	32	36	40	43	47
20.0	22.5	25.2	28.0	30.8	33.6	36.4
52.0	58.5	65.5	72.8	80.1	87.4	94.6
25.44	26.96	26.79	38.63	44.15	48.62	57.61
17.06	19.35	21.14	25.72	27.29	44.20	45.11
4.4	5.2	6.4	7.0	7.4	9.3	10.2
27.0	32.0	39.2	43.0	46.0	55.0	60.0
32	40	50	63	63	63	75
6.7	6.9	7.5	6.5	6.2	5.9	5.4
4.25	4.3	4.8	4.5	4.3	3.9	3.9
265	273	297	257	245	233	213
167	169	189	177	169	153	153
6.67 x 1	8.93 x 1	8.93 x 1	8.93 x 1	6.67 x 2	6.67 x 2	6.67 x 2
PVE	PVE	PVE	PVE	PVE	PVE	PVE
1,100 x 1	1,400 x 1	1,400 x 1	1,400 x 1	1,100 x 2	1,100 x 2	1,100 x 2
Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Top	Top	Top	Top	Top	Top	Top
2	2	2	2	2	2	2
291	292	313	313	342	365	365
4,852	4,866	5,209	5,209	5,698	6,089	6,089
11	11	11	11	11	8	8
110	110	110	110	110	80	80
BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
620 x 2	620 x 2	620 x 2	620 x 2	620 x 2	620 x 2	620 x 2
12.70	12.70	15.88	15.88	15.88	15.88	19.05
1/2	1/2	5/8	5/8	5/8	5/8	3/4
28.58	28.58	28.58	28.58	28.58	34.92	34.92
11/8	11/8	11/8	11/8	11/8	13/8	13/8
22.22	22.22	22.22	28.58	28.58	28.58	28.58
7/8	7/8	7/8	1-1/8	1-1/8	1-1/8	1-1/8
200 [220]	200 [220]	200 [220]	200 [220]	200 [220]	200 [220]	200 [220]
90	90	90	90	90	90	90
1,000	1,000	1,000	1,000	1,000	1,000	1,000
110	110	110	110	110	110	110
110	110	110	110	110	110	110
50	50	50	50	50	50	50
0.75	0.75	0.75	0.75	0.75	0.75	0.75
F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP=2,088)						
8.0	10.5	10.5	10.5	10.5	14.0	14.0
16.70	21.92	21.92	21.92	21.92	29.23	29.23
58	58	59	61	64	65	65
61	61	63	63	65	67	67
81	81	81	84	86	87	87
237	268	274	274	309	332	332
1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765	1,295 x 1,695 x 765
-5-50	-5-50	-5-50	-5-50	-5-50	-5-50	-5-50
-25-24	-25-24	-25-24	-25-24	-25-24	-25-24	-25-24

# Dimensional drawings

## DVM S2 High EER Heat Recovery (3-Pipe)

AM080/100/120AXVGR/EU

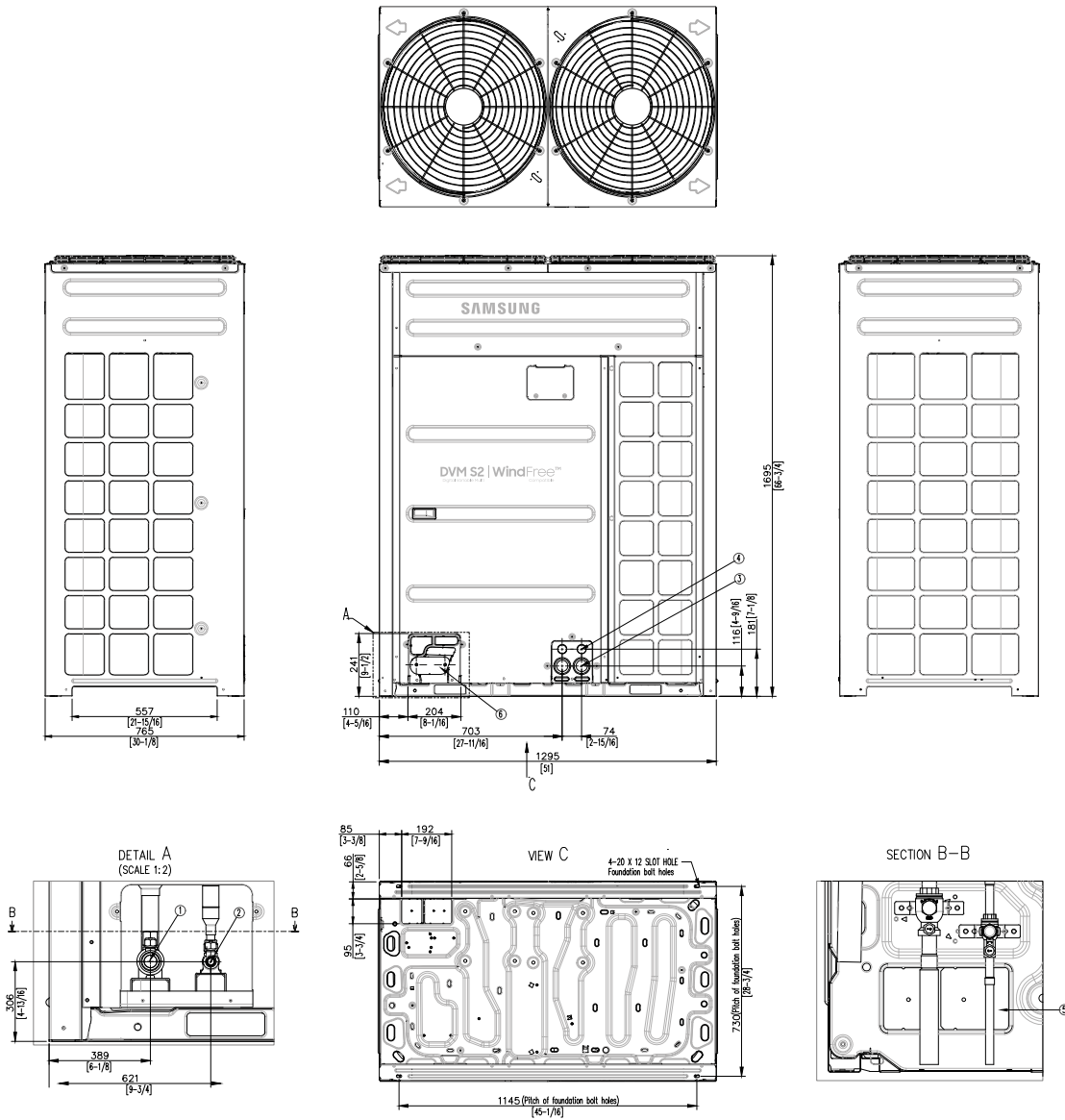
Units: mm [inches]



NO	Name	Description
1	Low Pressure Gas Ref.pipe	See NOTE 4.
2	High Pressure Ref.pipe	See NOTE 4.
3	Liquid Ref.pipe	See NOTE 4.
4	Power wiring conduit	Ø44
5	Communication wiring conduit	Ø34
6	Knock-out Hole for Ref.Piping (bottom)	
7	Knock-out Hole for Ref.Piping (front)	

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

Note:  
 1. Detail A and SECTION B-B indicate the dimension after fixing the attached piping.  
 2. Item 3-7: Knock-out hole  
 3. View C indicate the dimension of knock-out hole (bottom)  
 4. Pipe [Ø, mm(inch)]: Brazing connection



NO	Name	Description
1	Low Pressure Gas Ref.pipe	See NOTE 4.
2	High Pressure Ref.pipe	See NOTE 4.
3	Liquid Ref.pipe	See NOTE 4.
4	Power wiring conduit	Ø44
5	Communication wiring conduit	
6	Knock-out Hole for Ref.Piping (bottom)	
7	Knock-out Hole for Ref.Piping (front)	

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

Note:  
 1. Detail A and SECTION B-B indicate the dimension after fixing the attached piping.  
 2. Item 3-7: Knock-out hole  
 3. View C indicate the dimension of knock-out hole (bottom)  
 4. Pipe [Ø, mm(inch)]: Brazing connection



# Specifications

## DVM S Water

- Water Cooled, Variable Refrigerant Flow Heat Pump/  
Heat Recovery Unit R410A.
- Suitable for indoor and outdoor installation.
- Each unit houses one (8-12 HP) or two (20~30 HP)  
Inverter Scroll compressors with Flash Injection technology.



MKW				AM080MXWANR/EU	AM100MXWANR/EU	AM120MXWANR/EU	
Power Supply				Φ, #, V, Hz	3Φ, 4, 380-415 V, 50/60 Hz	3Φ, 4, 380-415 V, 50/60 Hz	3Φ, 4, 380-415 V, 50/60 Hz
Performance	HP		HP	8	10	12	
	Capacity (Nominal)	Cooling	kW	22.4	28.0	33.6	
		Heating	kW	25.2	31.5	37.8	
	Maximum number of connectable indoor units			ea	14	18	22
	Total capacity of the connected indoor units	Min.	kW	11.2	14.0	16.8	
Max.		kW	29.1	36.4	43.7		
Power	Power Input (Nominal)	Cooling	kW	3.67	4.87	6.00	
		Heating	kW	3.97	5.04	6.25	
	Current Input (Nominal)	Cooling	A	5.9	8.1	9.6	
		Heating	A	6.4	8.4	10.0	
	Current	Minimum SSC value		MVA	3.9	3.9	4.8
		MCA	A	16.1	16.1	20.0	
MFA		A	20	20	25		
COP <sup>1</sup>	Nominal Cooling		W/W	6.10	5.75	5.60	
	Nominal Heating		W/W	6.35	6.25	6.05	
Compressor	Type		-	Inverter Scroll	Inverter Scroll	Inverter Scroll	
	Output		kW × n	4.96 x 1	4.96 x 1	6.13 x 1	
	Oil	Type	-	PVE	PVE	PVE	
Initial Charge		cc	3,900	3,900	3,900		
Condenser	Type		-	Plate Heat Exchanger	Plate Heat Exchanger	Plate Heat Exchanger	
	Pipe Size		ø, inch	PT 1 1/4	PT 1 1/4	PT 1 1/4	
	Pressure Drop		kPa	22	30	43	
	Water Flow Rate		l/min	80	96	114	
	Max. Pressure		MPa	1.96	1.96	1.96	
	Liquid Pipe			ø, mm	9.52	9.52	12.70
				ø, inch	3/8	3/8	1/2
	Gas Pipe			ø, mm	19.05	22.22	28.58
				ø, inch	3/4	7/8	1 1/8
	Piping Connections	Discharge Gas Pipe		ø, mm	15.88	19.05	19.05
		ø, inch	5/8	3/4	3/4		
Piping length		Outdoor-Indoor	Max.	m	170 (190)	170 (190)	170 (190)
			After branch	Max.	m	90	90
Total piping length		System	Actual	m	500	500	500
			Level difference	Outdoor-Indoor	Outdoor unit in highest position	m	50
Indoor unit in highest position		m			40	40	40
		Max.	m	50	50	50	
Wiring Connections	Communication	Minimum	mm <sup>2</sup>	0.75	0.75	0.75	
		Remark	-	F1, F2	F1, F2	F1, F2	
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Factory Charging		kg	5.5	5.8	6.0	
			tCO <sub>2</sub> e	11.48	12.11	12.53	
Sound	Sound Pressure <sup>2</sup>	Cooling	dB(A)	48	48	50	
		Heating	dB(A)	51	51	52	
	Sound Power		dB(A)	70	70	70	
External Dimensions	Net Weight		kg	160.0	160.0	160.0	
	Net Dimensions (W x H x D)		mm	770 x 1,000 x 545	770 x 1,000 x 545	770 x 1,000 x 545	
Operating Temperature Range	Cooling		°C	10.0-45.0	10.0-45.0	10.0-45.0	
	Heating		°C	10.0-45.0	10.0-45.0	10.0-45.0	



AM200MXWANR/EU	AM300KXWANR/EU
3Φ, 4, 380-415 V, 50/60 Hz	3Φ, 4, 380-415 V, 50/60 Hz
20	30
56.0	84
63	94.5
36	55
28.0	42.0
72.8	109.2
10.77	16.80
10.86	16.88
17.3	26.4
17.4	26.5
7.7	-
32.2	48.0
40	63
5.20	5.00
5.80	5.60
Inverter Scroll	SSC Scroll x 2
4.96 x 2	6.75 x 2
PVE	PVE
6,200	6,200
Plate Heat Exchanger	Plate Heat Exchanger
PT11/4	PT 2
54	50
190	285
1.96	1.96
15.88	19.05
5/8	3/4
28.58	34.92
11/8	1 3/8
28.58	28.58
11/8	11/8
170 (190)	170 (190)
90	90
500	500
50	50
40	40
50	50
0.75	0.75
F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP=2,088)	
9.8	11.0
20.46	22.96
51	55
52	58
73	75
240.0	280.0
1,100 x 1,000 x 545	1,100 x 1,000 x 545
10.0-45.0	10.0-45.0
10.0-45.0	10.0-45.0

<sup>1</sup> Performances are based on the following test conditions:  
 - Cooling: Indoor temperature: 27 °C DB, 19 °C WB,  
 Inlet water temperature: 30 °C  
 - Heating: Indoor temperature: 20 °C DB, 15 °C WB,  
 Inlet water temperature: 20 °C  
 - Equivalent refrigerant piping: 7.5 m, Level differences: 0 m

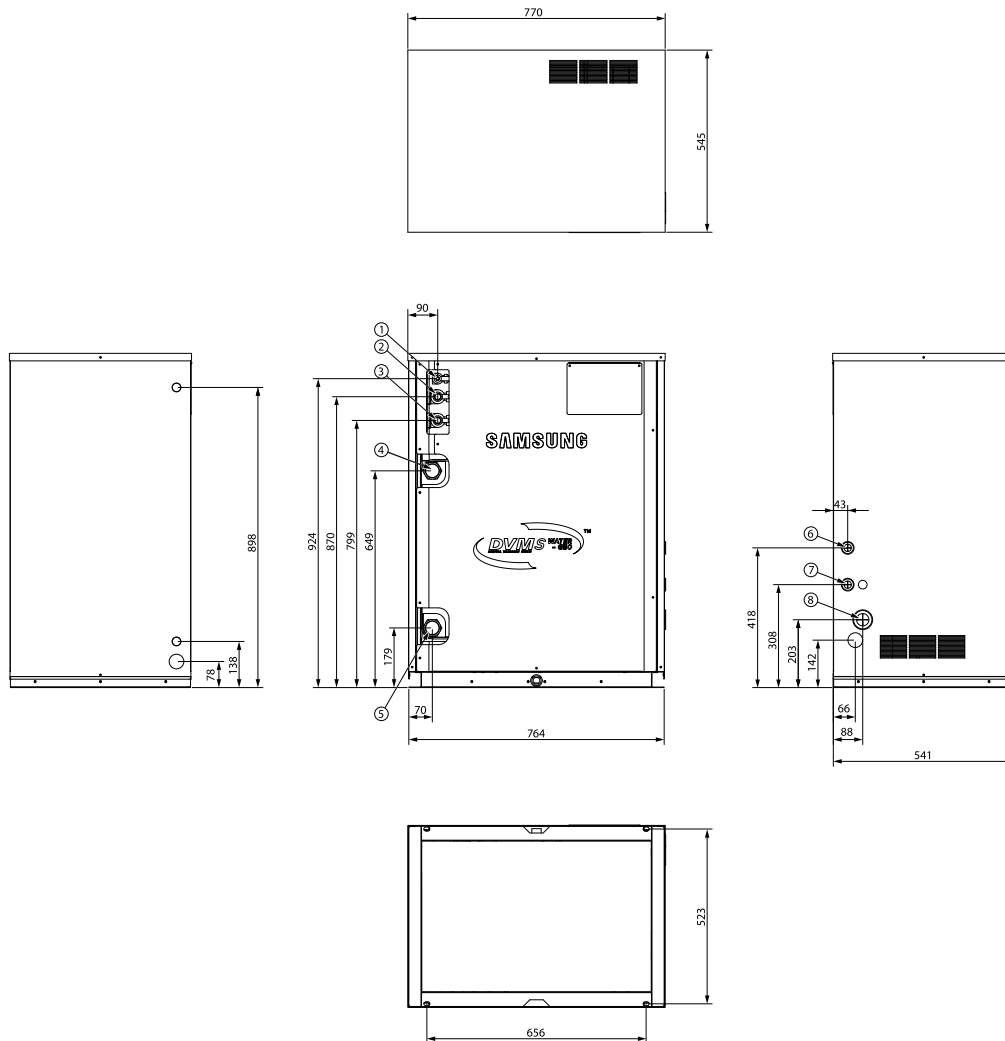
<sup>2</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ according to operating conditions. Sound power level is an absolute value that a sound source generates. Sound Power: ODU and IDU operation mode is "Cooling" and hydro unit is "Heating".

# Dimensional Drawing

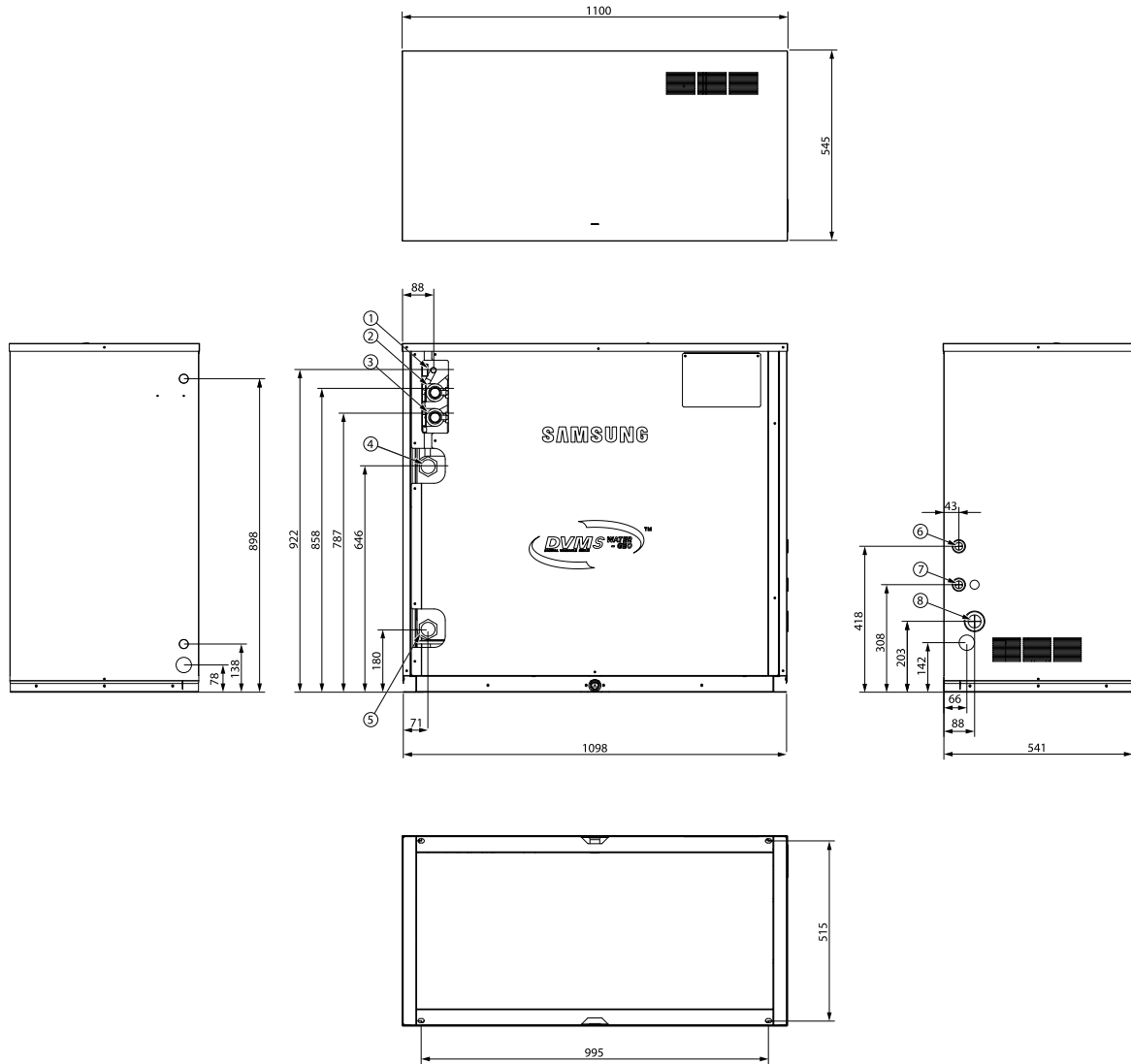
## DVM S Water

AM080/100/120MXWANR/EU

Units: mm [inches]



NO	Name	Description
1	Liquid Ref. pipe	ø19.05 (3/4)
2	High Pressure Gas Ref. pipe	ø28.58 (1 1/8)
3	Low Pressure Gas Ref. pipe	ø 34.92 (1 3/8)
4	Water outlet pipe	PT 2
5	Water inlet pipe	PT 2
6	Communication wiring conduits	
7	External contact wiring	
8	Power wiring conduits	



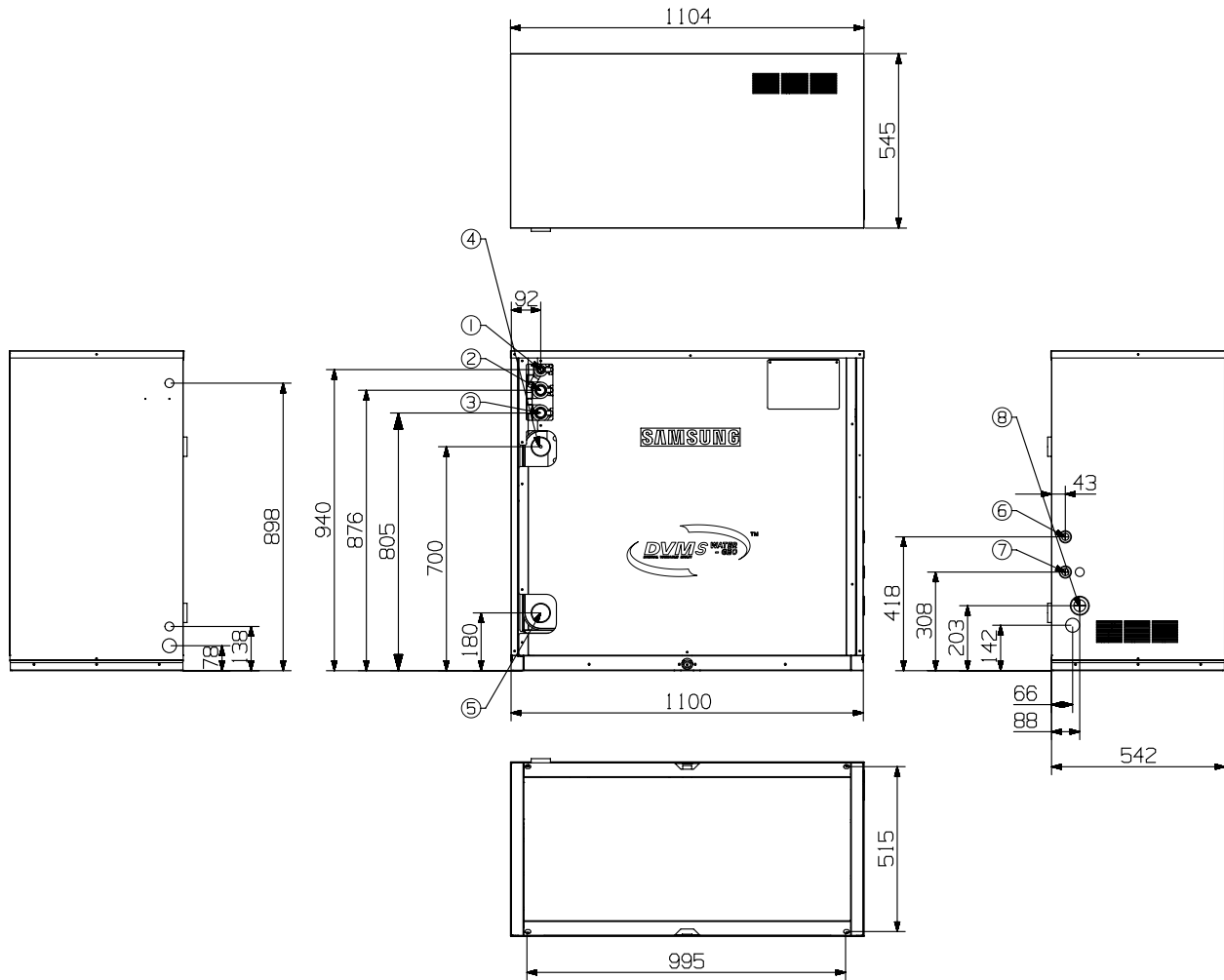
NO	Name	Description
1	Liquid Ref. pipe	15.88 (5/8)
2	High Pressure Gas Ref. pipe	ø28.58 (1 1/8)
3	Low Pressure Gas Ref. pipe	ø28.58 (1 1/8)
4	Water outlet pipe	PT1 1/4
5	Water inlet pipe	PT1 1/4
6	Communication wiring conduits	
7	External contact wiring	
8	Power wiring conduits	

# Dimensional Drawing

## DVM S Water

AM300MXWANR/EU

Units: mm [inches]



NO	Name	Description
1	Liquid Ref. pipe	ø19.05 (3/4)
2	High Pressure Gas Ref. pipe	ø28.58 (1 1/8)
3	Low Pressure Gas Ref. pipe	ø 34.92 (1 3/8)
4	Water outlet pipe	PT 2
5	Water inlet pipe	PT 2
6	Communication wiring conduits	
7	External contact wiring	
8	Power wiring conduits	





# Specifications

## WindFree™ 4-Way 600 x 600 Cassette **UNIQUE**

- Fast Cooling mode and WindFree™ Cooling mode.
- Four-way air supply via independently adjustable blades.
- Built-in condensation drain pump and humidity sensor.
- Direct drive fan powered by a BLDC motor.
- Can be controlled by Smartphone via Wi-Fi Kit.
- Motion Detect Sensor (Optional).



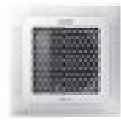
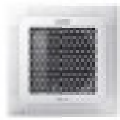
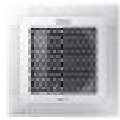
Model				AM015NNNDEH/EU	AM022NNNDEH/EU	AM028NNNDEH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
Performance	Capacity	Cooling	kW	1.5	2.2	2.8
		Heating	kW	1.7	2.5	3.2
Power	Power Input	Cooling	W	18	18	18
		Heating	W	18	18	18
	Current Input	Cooling	A	0.17	0.17	0.17
		Heating	A	0.17	0.17	0.17
	Current	MCA	A	0.2	0.2	0.2
		MFA	A	15	15	15
Fan	Type		-	Turbo Fan	Turbo Fan	Turbo Fan
	Number of Fans		ea	1	1	1
	Airflow Rate	H/M/L	m³/min		8.2/7.0/6.3	9.0/7.7/6.5
l/s				137/117/105	150/128/108	167/142/125
Fan Motor	Model		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output x n		W	65 x 1	65 x 1	65 x 1
Piping Connections	Liquid Pipe		ø, mm	6.35	6.35	6.35
			ø, inch	1/4	1/4	1/4
	Gas Pipe		ø, mm	12.7	12.7	12.7
			ø, inch	1/2	1/2	1/2
Drain Pipe		ø, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	
Wiring Connections	Communication	Min.	mm²	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)		
	Electronic Expansion Valve		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	H/M/L	dB(A)	30.0/28.0/23.0	32.0/29.0/25.0	33.0/30.0/26.0
	Sound Power	Cooling	dB(A)	46	47	50
Dimensions	Net Weight		kg	12.0	12.0	12.0
	Net Dimensions (W × H × D)		mm	575 x 250 x 575	575 x 250 x 575	575 x 250 x 575
Panel	Model Name		-	PC4SUFMAN	PC4SUFMAN	PC4SUFMAN
Drain Pump	Drain Pump		-	INCLUDED	INCLUDED	INCLUDED
	Max. Lifting Height/Displacement		mm / litres/h	750/24	750/24	750/24

## Accessories



Wireless Remote Controller	Simple Type Controller	Touch Controller	Wired Remote Controller	Wi-Fi Kit	External Room Sensor	Panel (Mandatory)	Motion Detect Sensor
AR-EH03E	MWR-SH00N	MWR-SH11N	MWR-WG00*N	MIM-H04EN	MRW-TA	PC4SUFMAN	MCR-SMD

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



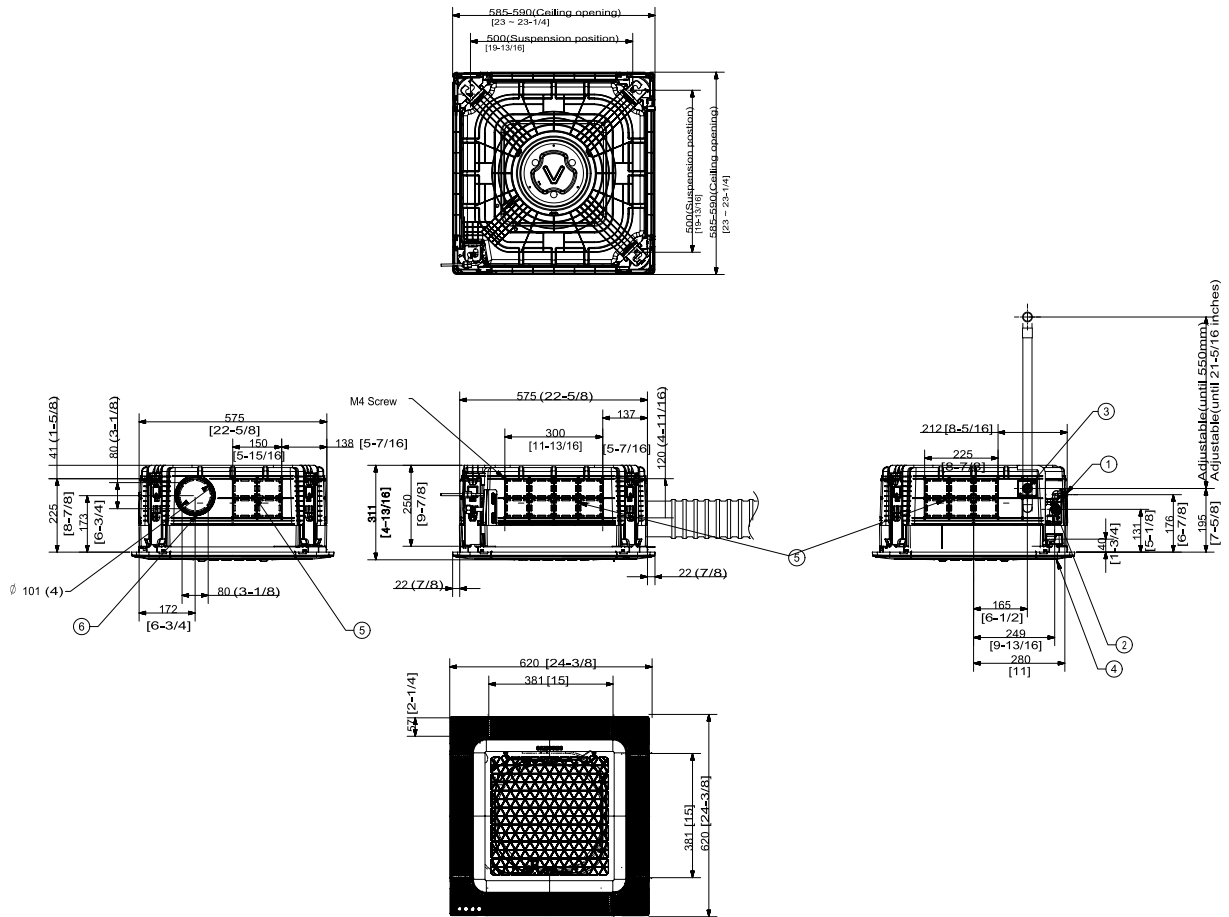
AM036NNNDEH/EU	AM045NNNDEH/EU	AM056NNNDEH/EU	AM060NNNDEH/EU
1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz
3.6	4.5	5.6	6.0
4.0	5.0	6.3	6.8
20	23	28	31
20	23	28	31
0.19	0.22	0.27	0.30
0.19	0.22	0.27	0.30
0.2	0.3	0.4	0.4
15	15	15	15
Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
1	1	1	1
10.5/9.5/8.0	11.5/10.2/9.0	13.0/11.0/9.5	13.5/12.0/10.2
175/158/133	192/170/150	217/183/158	225/200/170
BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
65 x 1	65 x 1	65 x 1	65 x 1
6.35	6.35	6.35	6.35
1/4	1/4	1/4	1/4
12.7	12.7	12.7	12.7
1/2	1/2	1/2	1/2
VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
0.75	0.75	0.75	0.75
F1, F2	F1, F2	F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP=2,088)			
EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
34.0/30.0/26.0	36.0/34.0/32.0	39.0/36.0/33.0	40.0/38.0/35.0
51	53	56	57
12.0	12.0	12.0	12.0
575 x 250 x 575	575 x 250 x 575	575 x 250 x 575	575 x 250 x 575
PC4SUFMAN	PC4SUFMAN	PC4SUFMAN	PC4SUFMAN
INCLUDED	INCLUDED	INCLUDED	INCLUDED
750/24	750/24	750/24	750/24

# Specifications

## WindFree™ 4-Way 600 x 600 Cassette

AM\*\*\*NNNDEH/EU

Units: mm [inches]



NO	Name	Description
1	Liquid pipe connection	ø6.35 (1/4)
2	Gas pipe connection	ø12.70 (1/2)
3	Drain pipe connection	VP25 (OD 32, ID 25)
4	Power supply/communication wiring conduits	Use M4 Screw
5	Fresh air intake knock-out hole	ø10 [4], use M4 Screw

Note: As for suspension bolt, please use M8-M10. (Procured at local site)







# Specifications

## WindFree™ 4-Way Cassette **UNIQUE**

- Fast Cooling mode and WindFree™ Cooling mode.
- Four-way air supply via independently adjustable blades.
- Built-in condensation drain pump and humidity sensor.
- Direct drive fan powered by a BLDC motor.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).
- Motion Detect Sensor (Optional).
- Air Purification Panel, Auto Elevation Panel (Optional).



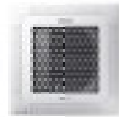
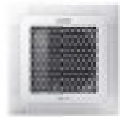
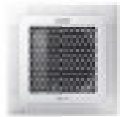
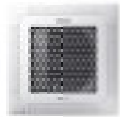
Model				AM028AN4PKH/EU	AM036AN4PKH/EU	AM045AN4PKH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220–240 V, 50/60 Hz	1Φ, 2, 220–240 V, 50/60 Hz	1Φ, 2, 220–240 V, 50/60 Hz
Performance	Capacity	Cooling	kW	2.8	3.6	4.5
		Heating	kW	3.2	4.0	5.0
Power	Power Input	Cooling	W	24	26	28
		Heating	W	24	26	28
	Current Input	Cooling	A	0.25	0.27	0.30
		Heating	A	0.25	0.27	0.30
	Current	MCA	A	0.3	0.4	0.4
		MFA	A	15	15	15
Fan	Type		-	Turbo Fan	Turbo Fan	Turbo Fan
	Number of Fans		ea	1	1	1
	Airflow Rate H/M/L		m <sup>3</sup> /min		14.4/13.4/12.4	15.4/14.4/13.4
		l/s		240/223/207	255/240/223	272/257/240
Fan Motor	Model		-	BLDC Motor	BLDC Motor	BLDC Motor
	Output x n		W	65 x 1	65 x 1	65 x 1
Piping Connections	Liquid Pipe		ø, mm	6.35	6.35	6.35
			ø, inch	1/4	1/4	1/4
	Gas Pipe		ø, mm	12.70	12.70	12.70
			ø, inch	1/2	1/2	1/2
	Drain Pipe		ø, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
Wiring Connections	Communication	Minimum	mm <sup>2</sup>	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)		
	Electronic Expansion Valve		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	H/M/L	dB(A)	30.0/28.0/27.0	31.0/30.0/28.0	33.0/31.0/29.0
	Sound Power	Cooling	dB(A)	46	47	49
Dimensions	Net Weight		kg	15.0	15.0	15.0
	Net Dimensions (W × H × D)		mm	840 x 204 x 840	840 x 204 x 840	840 x 204 x 840
Panel	Model Name		-	PC4NUFMAN	PC4NUFMAN	PC4NUFMAN
Drain Pump	Drain Pump		-	INCLUDED	INCLUDED	INCLUDED
	Max. Lifting Height/Displacement		mm / litres/h	750 / 24	750 / 24	750/24

## Accessories



Wireless Remote Controller	Simple Type Controller	Touch Controller	Wired Remote Controller	External Room Sensor	Panel (Mandatory)	Air Purification Panel (Optional)	Auto Elevation Panel (Optional)	Motion Detect Sensor
AR-EH03E	MWR-SH00N	MWR-SH11N	MWR-WG00*N	MRW-TA	PC4NUFMAN	PC4NUCEAN	PC4NUXMAN	MCR-SMC

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



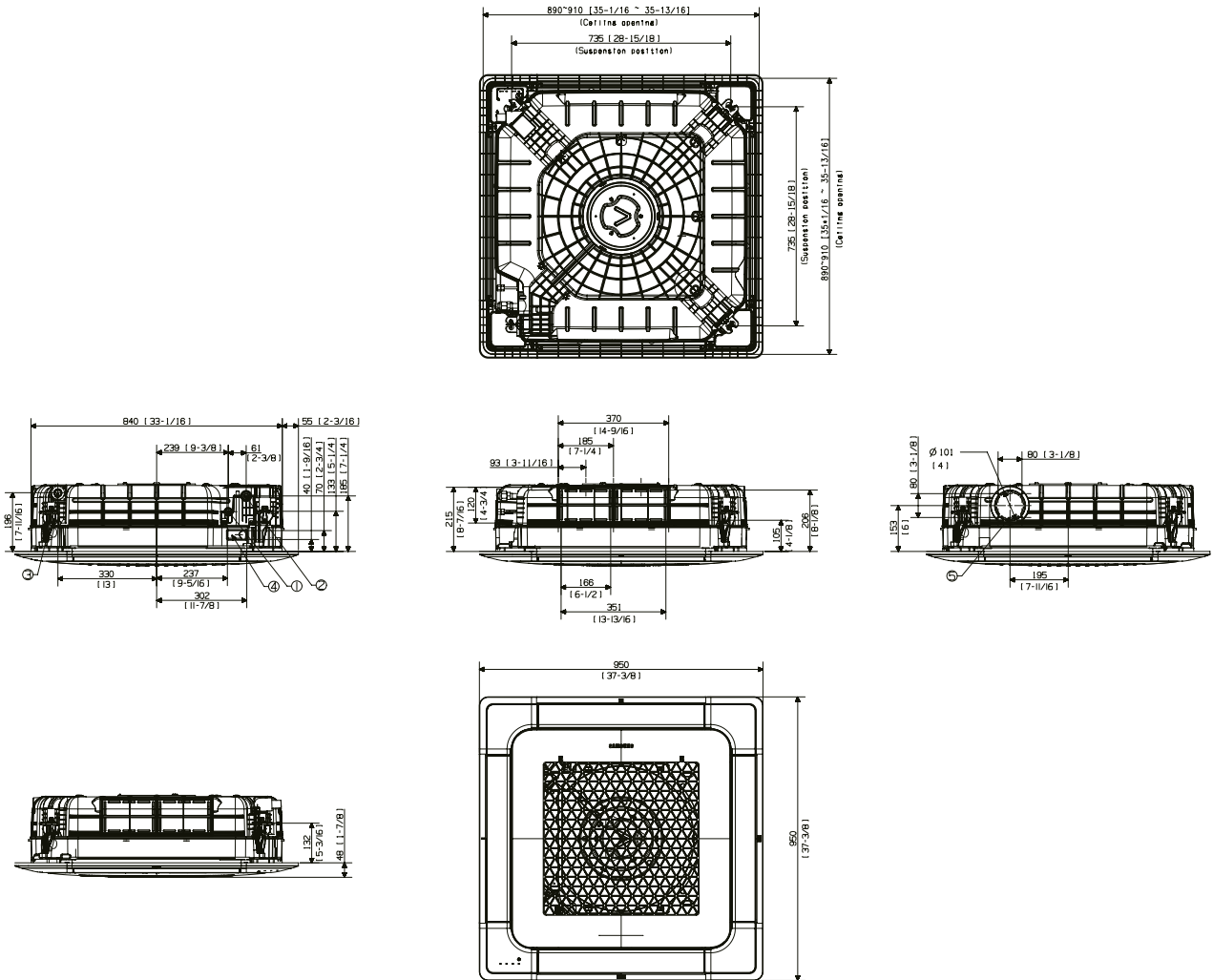
	AM056AN4PKH/EU	AM071AN4PKH/EU	AM090AN4PKH/EU	AM112AN4PKH/EU	AM128AN4PKH/EU	AM140AN4PKH/EU
	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz
	5.6	7.1	9.0	11.2	12.8	14.0
	6.3	8.0	10.0	12.5	13.8	16.0
	32	34	55	78	95	115
	32	34	55	78	95	115
	0.32	0.35	0.45	0.60	0.75	0.85
	0.32	0.35	0.45	0.60	0.75	0.85
	0.4	0.5	0.6	0.8	1.0	1.1
	15	15	15	15	15	15
	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
	1	1	1	1	1	1
	16.4/14.6/12.8	18.2/15.4/12.8	24.4/19.9/15.5	26.6/21.0/15.5	35.4/29.2/24.3	37.9/31.7/25.5
	273/243/213	303/257/213	407/332/258	43/350/258	590/487/405	632/528/425
	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
	65 x 1	65 x 1	65 x 1	65 x 1	97 x 1	97 x 1
	6.35	9.52	9.52	9.52	9.52	9.52
	1/4	3/8	3/8	3/8	3/8	3/8
	12.70	15.88	15.88	15.88	15.88	15.88
	1/2	5/8	5/8	5/8	5/8	5/8
	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
	0.75	0.75	0.75	0.75	0.75	0.75
	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2
	R410A (Fluorinated greenhouse gas, GWP=2,088)					
	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
	35.0/33.0/29.0	37.0/34.0/30.0	39.0/35.0/30.0	41.0/36.0/30.0	42.0/37.0/35.0	44.0/39.0/35.0
	51	53	55	59	58	60
	16.5	16.5	18.0	18.0	21.5	21.5
	840 x 204 x 840	840 x 204 x 840	840 x 246 x 840	840 x 246 x 840	840 x 288 x 840	840 x 288 x 840
	PC4NUFMAN	PC4NUFMAN	PC4NUFMAN	PC4NUFMAN	PC4NUFMAN	PC4NUFMAN
	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
	750/24	750/24	750/24	750/24	750/24	750/24

# Technical Drawings

## WindFree™ 4-Way Cassette

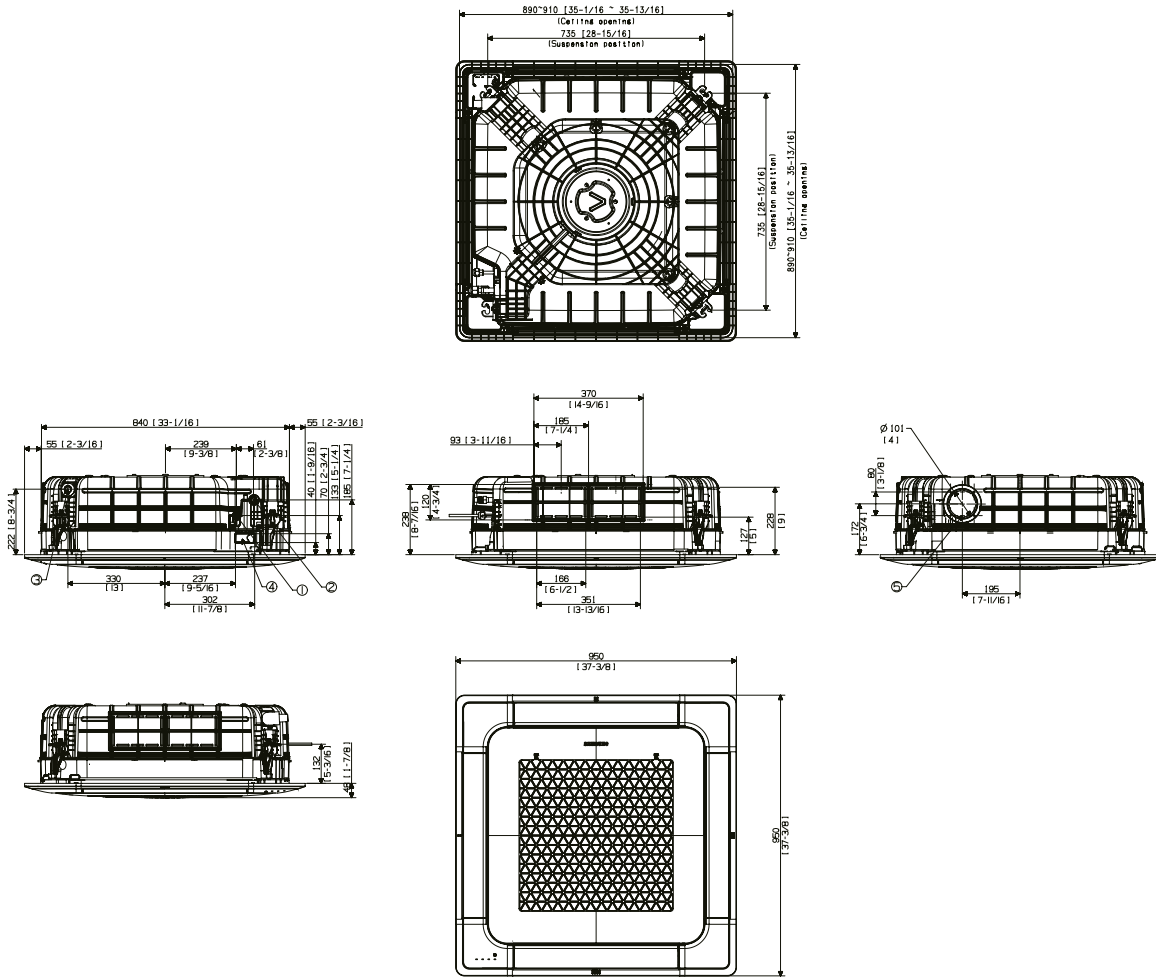
AM028/036/045/056/071AN4PKH/EU

Units: mm [inches]



NO	Name	Description
		AM028/036/045/056AN4PKH/EU
		AM071AN4PKH/EU
1	Liquid pipe connection	ø6.35 (1/4)
2	Gas pipe connection	ø12.7 (1/2)
3	Drain pipe connection	VP25 (OD 32, ID 25)
4	Power supply/communication wiring conduits	
5	Fresh air intake knock-out hole	ø10 [4], use M4 Screw

Note: As for suspension bolt, please use M8-M10. (Procured at local site)



NO	Name	Description
1	Liquid pipe connection	ø9.52 (3/8)
2	Gas pipe connection	ø15.88 (5/8)
3	Drain pipe connection	VP25 (OD 32, ID 25)
4	Power supply/communication wiring conduits	
5	Fresh air intake knock-out hole	ø10 [4], use M4 Screw

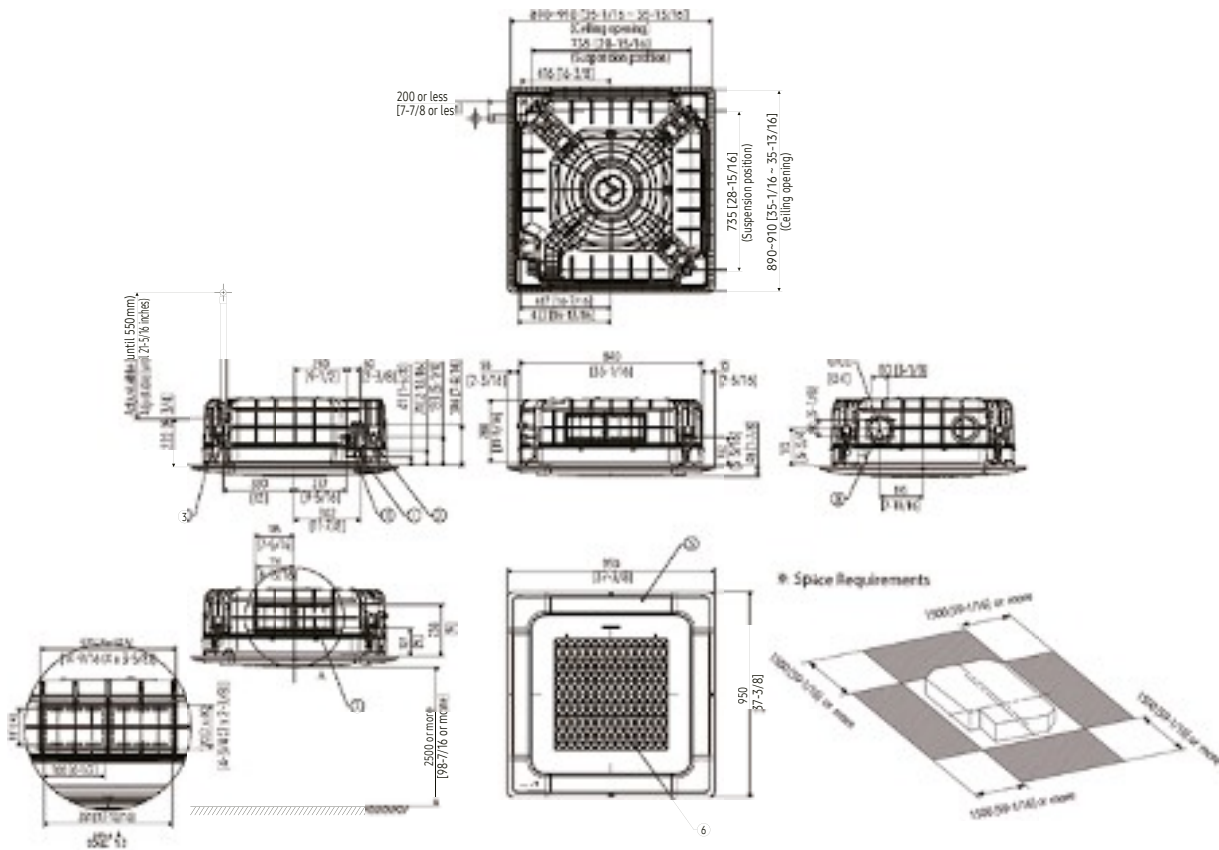
Note: As for suspension bolt, please use M8-M10. (Procured at local site)

# Technical Drawings

## WindFree™ 4-Way Cassette

AM128/140AN4PKH/EU

Units: mm [inches]



NO	Name	Description
1	Liquid pipe connection	Ø9.52(3/8)
2	Gas pipe connection	Ø15.88(5/8)
3	Drain pipe connection	VP-25(OD32, ID25)
4	Power supply & Communication wiring conduit	-
5	Air inlet grille	-
6	Air outlet louver	-
7	Sub-duct	* The sub duct is not applicable to the WindFree Panel.
8	Fresh air intake knockout hole	Ø10[4], Use M4 Screw

Note: As for suspension bolt, please use M8-M10. (Procured at local site)





# Specifications

## WindFree™ 1-Way Cassette **UNIQUE**

- Fast Cooling mode and WindFree™ Cooling mode.
- One-way air supply by means of a 100 mm wide blade.
- Built-in condensation drain pump and humidity sensor.
- Cross-flow fan direct driven by a BLDC motor.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).
- Optional Air Purification Panel.



Model				AM017NN1PEH/EU	AM022NN1PEH/EU	AM022NN1DKH/EU	
Power Supply				Ø, #, V, Hz	1Ø, 2, 220-240 V, 50 Hz	1Ø, 2, 220-240 V, 50 Hz	1Ø, 2, 220-240 V, 50 Hz
Performance	Capacity	Cooling	kW	1.7	2.2	2.2	
		Heating	kW	1.9	2.5	2.5	
Power	Power Input	Cooling	W	24	25	29	
		Heating	w	24	25	29	
	Current Input	Cooling	A	0.14	0.15	0.16	
		Heating	A	0.14	0.15	0.16	
	Current		A	0.18	0.19	0.20	
		MFA	A	15	15	15	
Fan	Type	-			Crossflow Fan	Crossflow Fan	Crossflow Fan
	Number of Fans	ea			1	1	1
	Airflow Rate	H/M/L			m³/min	4.80/4.30/4.10	5.10/4.60/4.30
			l/s	80.00/71.67/68.33	85.00/76.67/71.67	100.00/83.33/66.67	
Fan Motor	Model	-			BLDC Motor	BLDC Motor	BLDC Motor
	Output x n	W			27 x 1	27 x 1	27 x 1
Piping Connections	Liquid Pipe	ø, mm			6.35	6.35	6.35
		ø, inch			1/4	1/4	1/4
	Gas Pipe	ø, mm			12.7	12.7	12.70
		ø, inch			1/2	1/2	1/2
	Drain Pipe	ø, mm			VP20 (OD 25, ID 20)	VP20 (OD 25, ID 20)	VP20 (OD 25, ID 20)
Wiring Connections	Connection with Indoor	Minimum	mm²	0.75	0.75	0.75	
		Remark	-			F1, F2	F1, F2
Refrigerant	Type	-			R410A (Fluorinated greenhouse gas, GWP=2,088)		
	Electronic Expansion Valve	-			EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	(H/M/L)		dB(A)	28/26/24	29/26/24	29/26/24
		Cooling	dB(A)		46	47	47
Dimension	Net Weight	kg			8.0	8.0	10.0
	Net Dimensions (W x H x D)	mm			740 x 135 x 360	740 x 135 x 360	970 x 135 x 410
Panel	Model Name	-			PC1MWFMAN	PC1MWFMAN	PC1NWFMAN
Drain pump	-			INCLUDED	INCLUDED	INCLUDED	
	Max. Lifting Height/Displacement	mm / litres/h		750/24	750/24	750/24	

## Accessories



Wireless Remote Controller	Simple Type Controller	Touch Controller	Wired Remote Controller	Wi-Fi Kit	Panel (Mandatory)	Air Purification Panel (Optional)	External Room Sensor
AR-EH03E	MWR-SH00N	MWR-SH11N	MWR-WG00*N	MIM-H04EN	PC1*WFMAN	PC1*WCMAN	MRW-TA

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



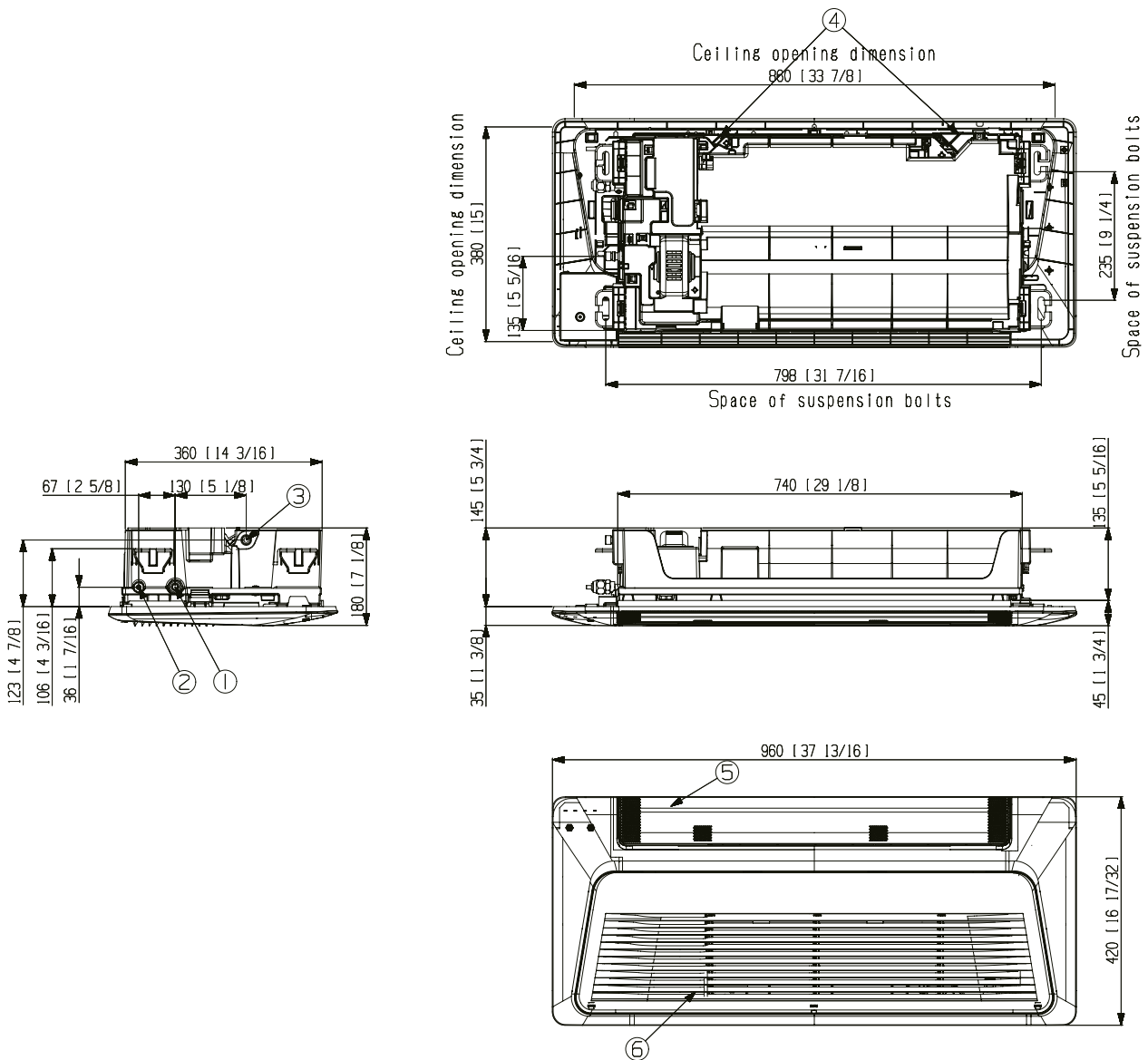
AM028NN1DKH/EU	AM036NN1DKH/EU	AM056NN1DEH/EU	AM071NN1DEH/EU
1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
2.8	3.6	5.6	7.1
3.2	4.0	6.3	8.0
32	40	55	80
32	40	55	80
0.17	0.20	0.28	0.40
0.17	0.20	0.28	0.40
0.21	0.25	0.35	0.50
15	15	15	15
Crossflow Fan	Crossflow Fan	Crossflow Fan	Crossflow Fan
1	1	1	1
7.00/6.00/5.00	8.00/7.00/6.00	16.00/14.00/12.50	17.00/15.50/14.00
116.67/100.00/83.33	133.33/116.67/100.00	266.67/233.33/208.33	283.33/258.33/233.33
BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
27 x 1	27 x 1	54 x 1	54 x 1
6.35	6.35	6.35	9.52
1/4	1/4	1/4	3/8
12.70	12.70	12.7	15.88
1/2	1/2	1/2	5/8
VP20 (OD 25, ID 20)	VP20 (OD 25, ID 20)	VP20 (OD 25, ID 20)	VP20 (OD 25, ID 20)
0.75	0.75	0.75	0.75
F1, F2	F1, F2	F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP=2,088)			
EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
32/28/24	37/33/30	41/38/35	42/39/36
50	55	59	60
10.0	10.0	13.5	13.5
970 x 135 x 410	970 x 135 x 410	1,200 x 138 x 450	1,200 x 138 x 450
PC1NWFMAN	PC1NWFMAN	PC1BWFMAN	PC1BWFMAN
INCLUDED	INCLUDED	INCLUDED	INCLUDED
750/24	750/24	750/24	750/24

# Dimensional drawings

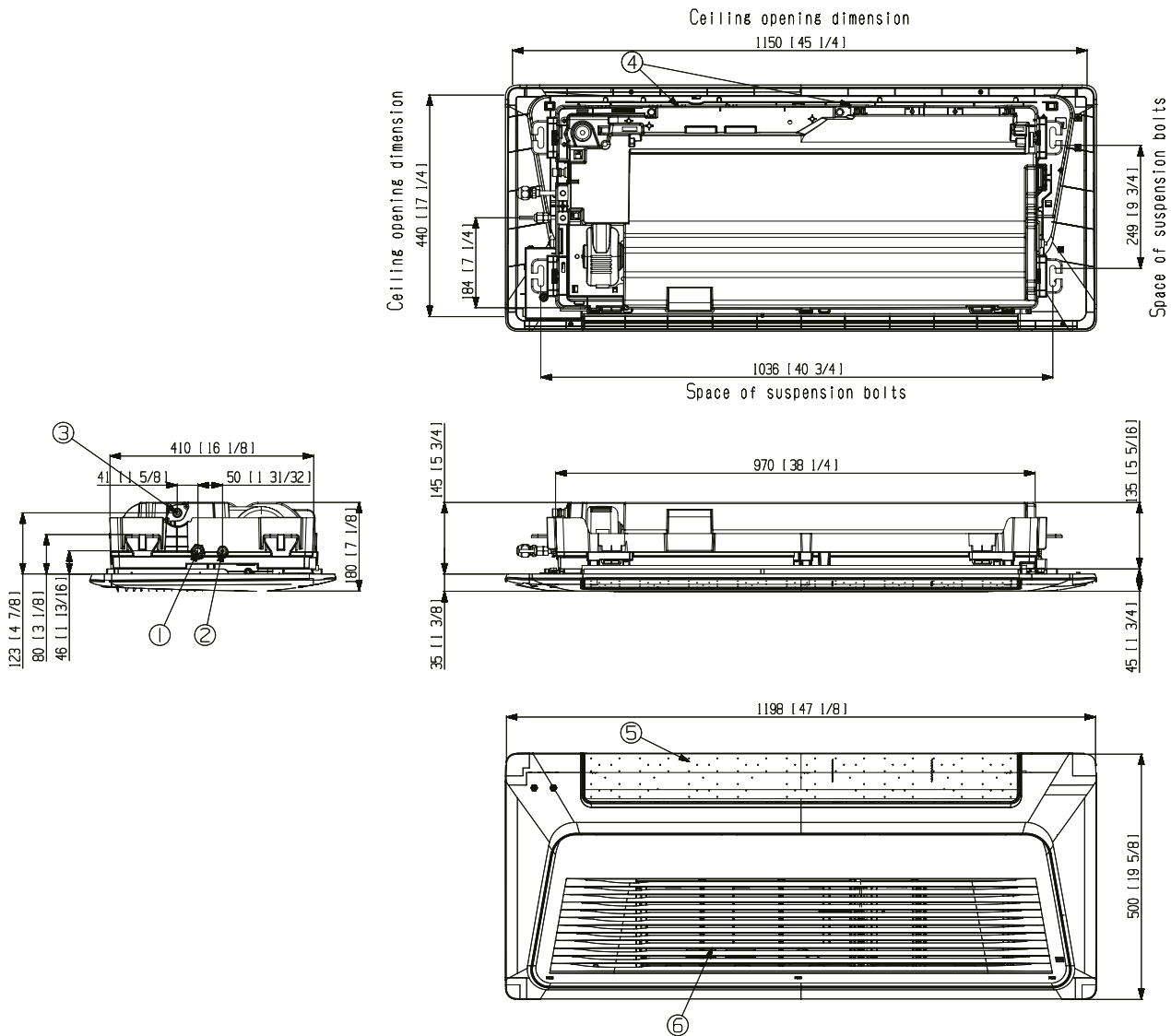
## WindFree™ 1-Way Cassette

AM017/022NN1PEH/EU

Units: mm [inches]



NO	Name	Description
1	Gas pipe connection	Ø12.7 (1/2")
2	Liquid pipe connection	Ø6.35 (1/4")
3	Drain hose connection	VP20 (OD26, ID20)
4	Power supply/Communication wiring conduit	-
5	Air outlet louver	-
6	Air inlet grille	-



NO	Name	Description
1	Gas pipe connection	Ø12.7 (1/2")
2	Liquid pipe connection	Ø6.35 (1/4")
3	Drain hose connection	VP20 (OD26, ID20)
4	Power supply/Communication wiring conduit	-
5	Air outlet louver	-
6	Air inlet grille	-

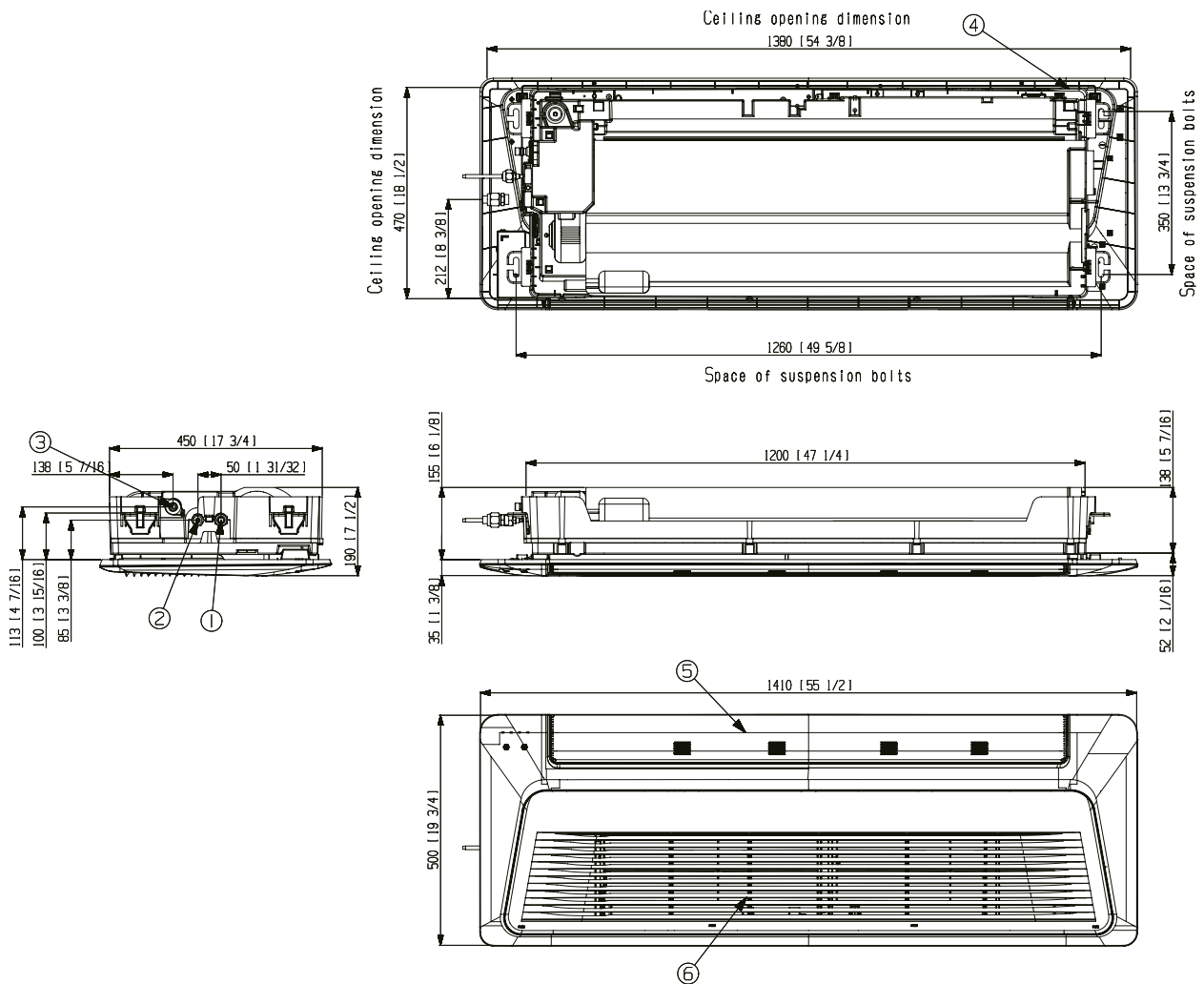


# Dimensional drawings

## WindFree™ 1-Way Cassette

AM056/071NN1DEH/EU

Units: mm [inches]



NO	Name	Description	
		5.2 kW	7.1 kW
1	Gas pipe connection	Ø12.70 (1/2")	Ø15.88 (5/8")
2	Liquid pipe connection	Ø6.35 (1/4")	Ø9.52 (3/8")
3	Drain hose connection		VP25 (OD32, ID25)
4	Power supply/Communication wiring conduit	-	-
5	Air outlet louver	-	-
6	Air inlet grille	-	-



# Specifications

## 360 Cassette

- 360 degree air supply.
- Bladeless discharge. Booster fans can be individually controlled, allowing for completely horizontal flow discharge. Coandă effect is created even without ceiling.
- Built-in condensation drain pump.
- The PM 1.0 panel is an optional accessory for square and circle panel.
- Auto elevation panel is an optional accessory available in both the circle and square panel.
- Circular or square cassette panel. Available in white and black.
- Predisposition of the air inlet to let fresh air in.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).
- Motion Detector Sensor is optional for square cassette panel.



Model				AM045KN4DEH/EU	AM056KN4DEH/EU	AM071KN4DEH/EU
Power Supply		Φ, #, V, Hz		1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
Performance	Capacity (Nominal)	Cooling	kW	4.5	5.6	7.1
		Heating	kW	5.0	6.3	8.0
Power	Power Input (Nominal)	Cooling	W	26	30	34
		Heating	W	26	30	34
	Current Input (Nominal)	Cooling	A	0.18	0.21	0.25
		Heating	A	0.18	0.21	0.25
Fan	Motor	Type	-	Turbo Fan	Turbo Fan	Turbo Fan
		Output x n	w	65 x 1	65 x 1	65 x 1
	Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min	14.50/13.50/12.50	16.00/14.50/13.50	18.00/16.00/14.00
Piping Connections	Liquid Pipe	ø, mm		6.35	6.35	9.52
		ø, inch		1/4	1/4	3/8
	Gas Pipe	ø, mm		12.70	12.70	15.88
		ø, inch		1/2	1/2	5/8
	Drain Pipe	ø, mm		VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
	Field Wiring	Power Source Wire	mm <sup>2</sup>		1.5-2.5	1.5-2.5
Transmission Cable		mm <sup>2</sup>		0.75-1.50	0.75-1.50	0.75-1.50
Refrigerant	Type	-		R410A (Fluorinated greenhouse gas, GWP=2,088)		
	Control Method	-		EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	33/31/29	34/32/29	36/33/30
	Sound Power	Cooling	dB(A)	50	51	53
Dimension	Net Weight		kg	21.0	21.0	21.0
	Net Dimensions (W x H x D)		mm	947 x 281 x 947	947 x 281 x 947	947 x 281 x 947
Panel	Model Name	-		PC4NUDMAN	PC4NUDMAN	PC4NUDMAN

## Accessories



Wireless Remote Controller	Simple Type Controller	Touch Controller	Wired Remote Controller	Wi-Fi Kit	External Room Sensor	Panel (Mandatory)
AR-KH03E	MWR-SH00N	MWR-SH11N	MWR-WG00*N	MIM-H04EN	MRW-TA	PC4NUDMAN

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



AM090KN4DEH/EU	AM112KN4DEH/EU	AM128KN4DEH/EU	AM140KN4DEH/EU
1Ø, 2, 220–240 V, 50 Hz	1Ø, 2, 220–240 V, 50 Hz	1Ø, 2, 220–240 V, 50 Hz	1Ø, 2, 220–240 V, 50 Hz
9.0	11.2	12.8	14.0
10.0	12.5	13.8	16.0
55	53	77	91
55	53	77	91
0.42	0.41	0.62	0.75
0.42	0.41	0.62	0.75
Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
65 x 1	97 x 1	97 x 1	97 x 1
22.00/18.50/16.00	25.50/21.00/17.50	29.50/24.00/19.00	31.50/26.50/21.00
366.67/308.33/266.67	425.00/350.00/291.67	491.67/400.00/316.67	525.00/441.67/350.00
9.52	9.52	9.52	9.52
3/8	3/8	3/8	3/8
15.88	15.88	15.88	15.88
5/8	5/8	5/8	5/8
VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
1.5–2.5	1.5–2.5	1.5–2.5	1.5–2.5
0.75–1.50	0.75–1.50	0.75–1.50	0.75–1.50
R410A (Fluorinated greenhouse gas, GWP=2,088)			
EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
40/36/32	40/36/32	42/38/33	44/40/35
57	58	60	61
21.0	24.0	24.0	24.0
947 x 281 x 947	947 x 365 x 947	947 x 365 x 947	947 x 365 x 947
PC4NUDMAN	PC4NUDMAN	PC4NUDMAN	PC4NUDMAN



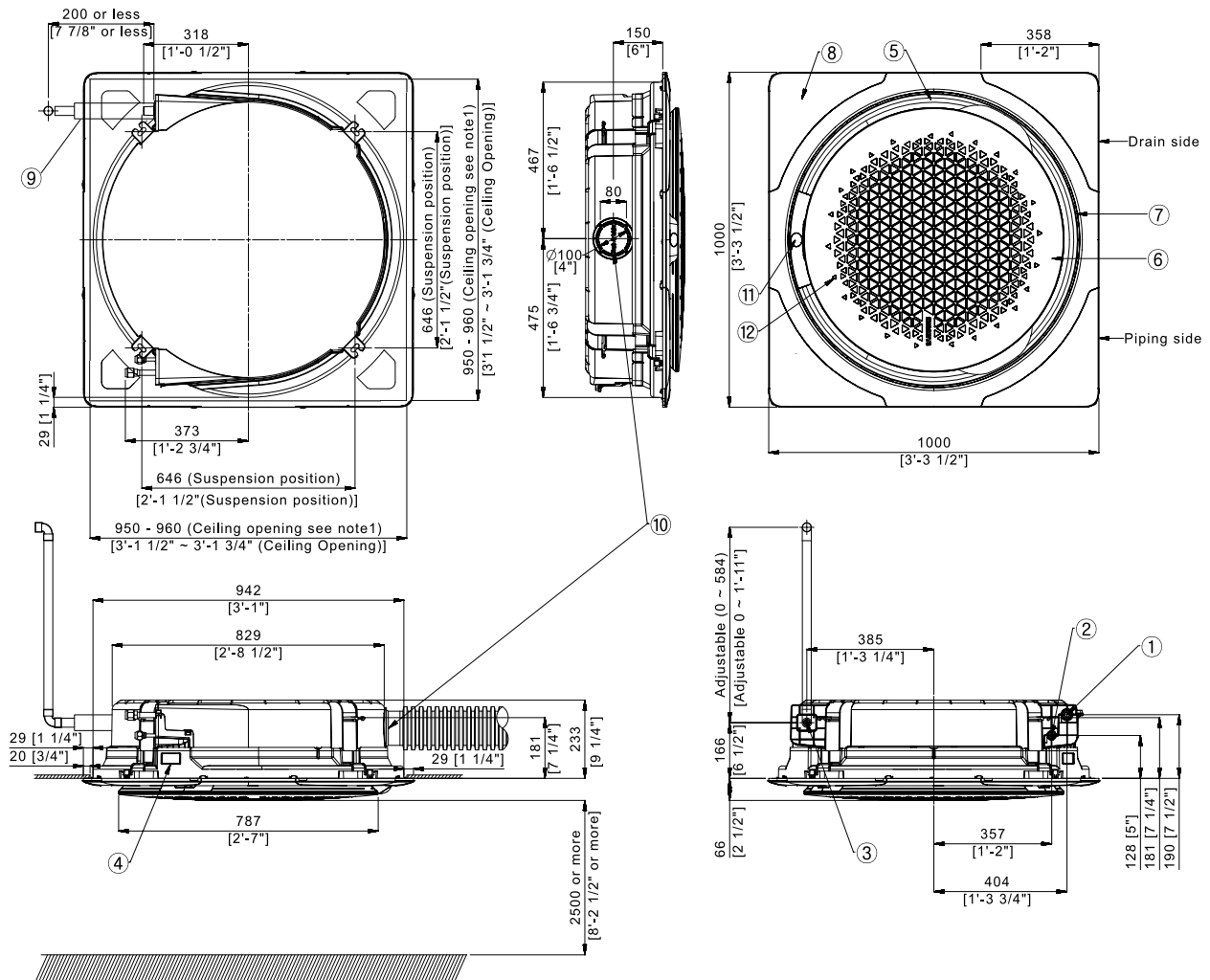
Panel (Mandatory)	Panel (Mandatory)	Panel (Mandatory)	Air Purification Panel (Optional)	Auto Elevation Panel (Optional)	Motion Detect Sensor for PC4NUDMAN
PC4NUNMAN	PC4NBDMAN	PC4NBNMAN	PC6EUCMAN	PC6EUXMAN	MCR-SME

# Dimensional drawings

## 360 Cassette (square)

AM045KN4DEH/EU, AM056KN4DEH/EU, AM071KN4DEH/EU, AM090KN4DEH/EU

Units: mm [inches]



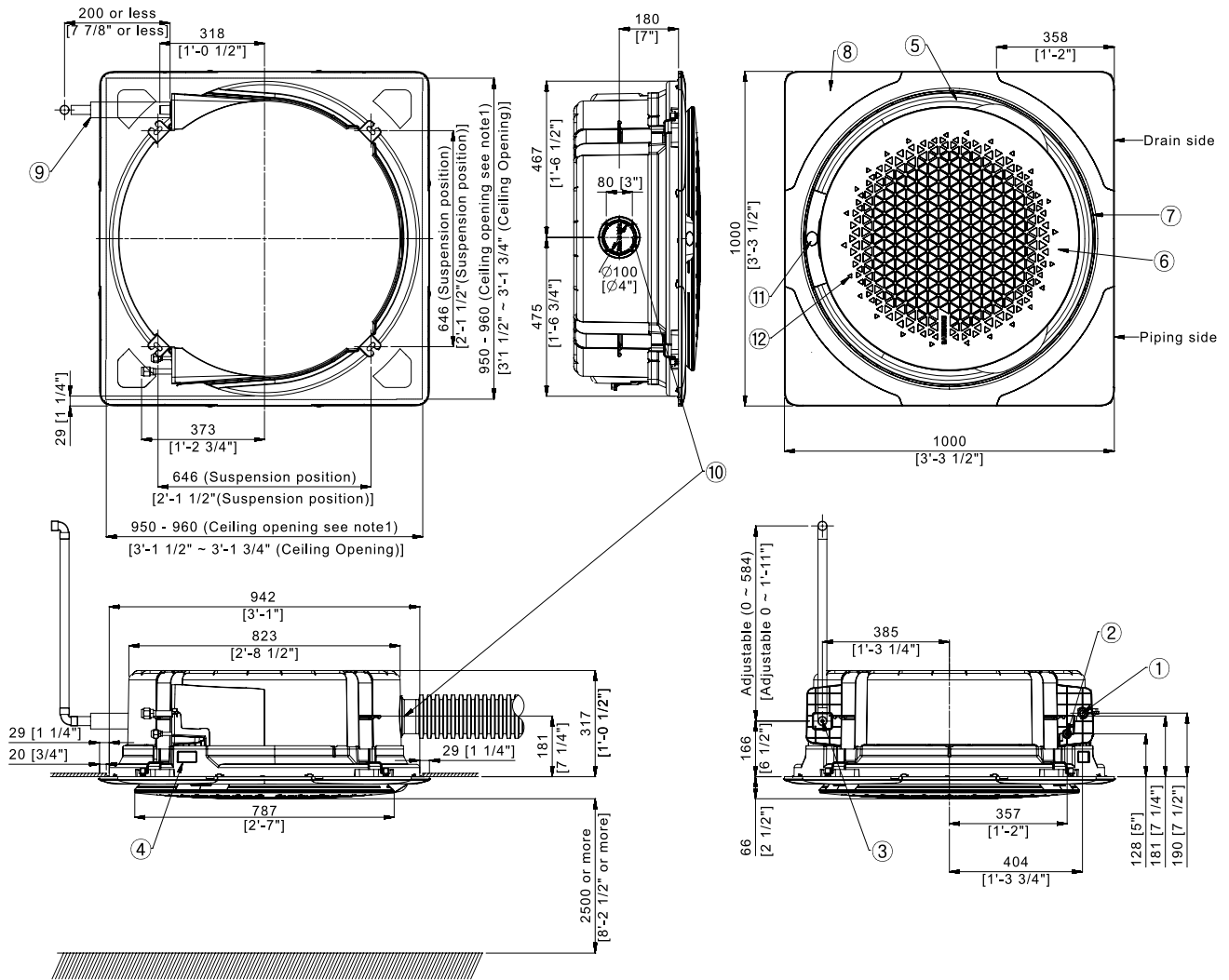
NO	Name
1	Refrigerant liquid pipe
2	Refrigerant gas pipe
3	Condensate drain
4	Power supply/communication wiring conduits
5	Air discharge opening
6	Air suction grille
7	Suction rim for booster fan
8	Corner decoration cover
9	Drain hose
10	Fresh air intake knock-out hole
11	Display window
12	Infrared receiver

1. Make sure the spacing between the ceiling and the cassette is no more than 29 mm [1 1/4"].  
Max ceiling opening: 960 mm [3'-1 3/4"]

2. When the conditions exceed 30 °C and RH 80 % in the ceiling or fresh air inducted into the ceiling, additional insulation is required (polythene foam, thickness 10 mm [3/8"] or more)

3. Open type panel model code: PC4NUDMAN





NO	Name
1	Refrigerant liquid pipe
2	Refrigerant gas pipe
3	Condensate drain
4	Power supply/communication wiring conduits
5	Air discharge opening
6	Air suction grille
7	Suction rim for booster fan
8	Corner decoration cover
9	Drain hose
10	Fresh air intake knock-out hole
11	Display window
12	Infrared receiver

1. Make sure the spacing between the ceiling and the cassette is no more than 29 mm [1 1/4"].  
Max ceiling opening: 960 mm [3' 1 3/4"]

2. When the conditions exceed 30 °C and RH 80 % in the ceiling or fresh air inducted into the ceiling, additional insulation is required (polythene foam, thickness 10 mm [3/8"] or more)

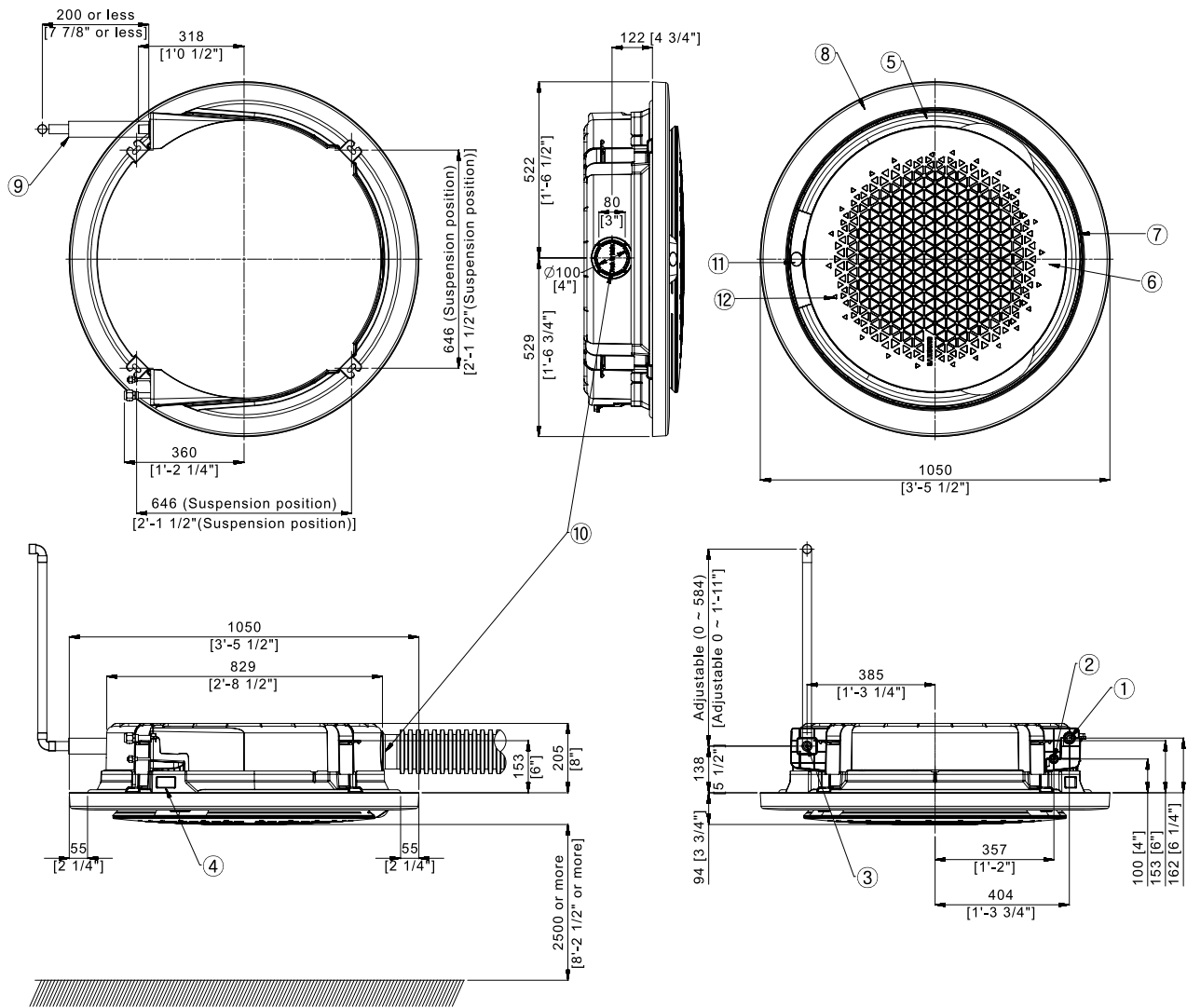
3. Open type panel model code: PC4NUDMAN

# Dimensional drawings

## 360 Cassette (circular)

AM045KN4DEH/EU, AM056KN4DEH/EU, AM071KN4DEH/EU, AM090KN4DEH/EU

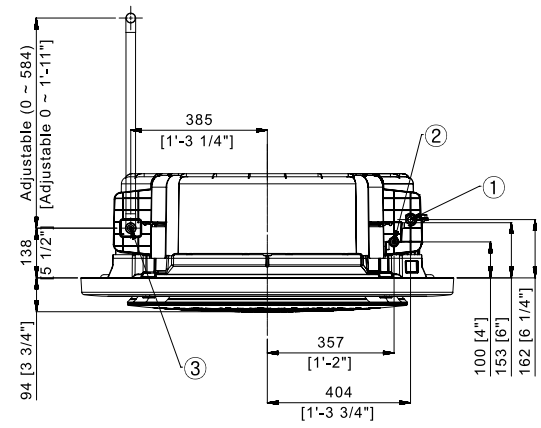
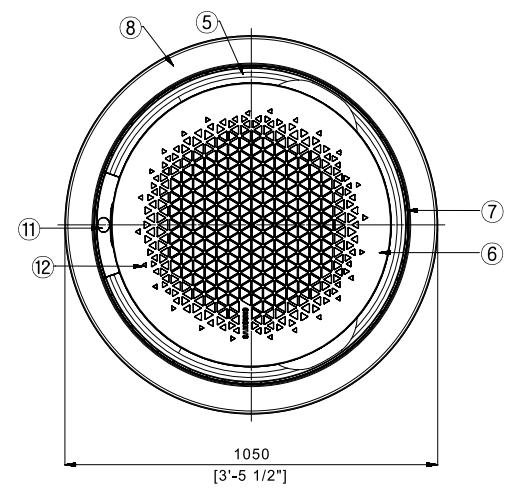
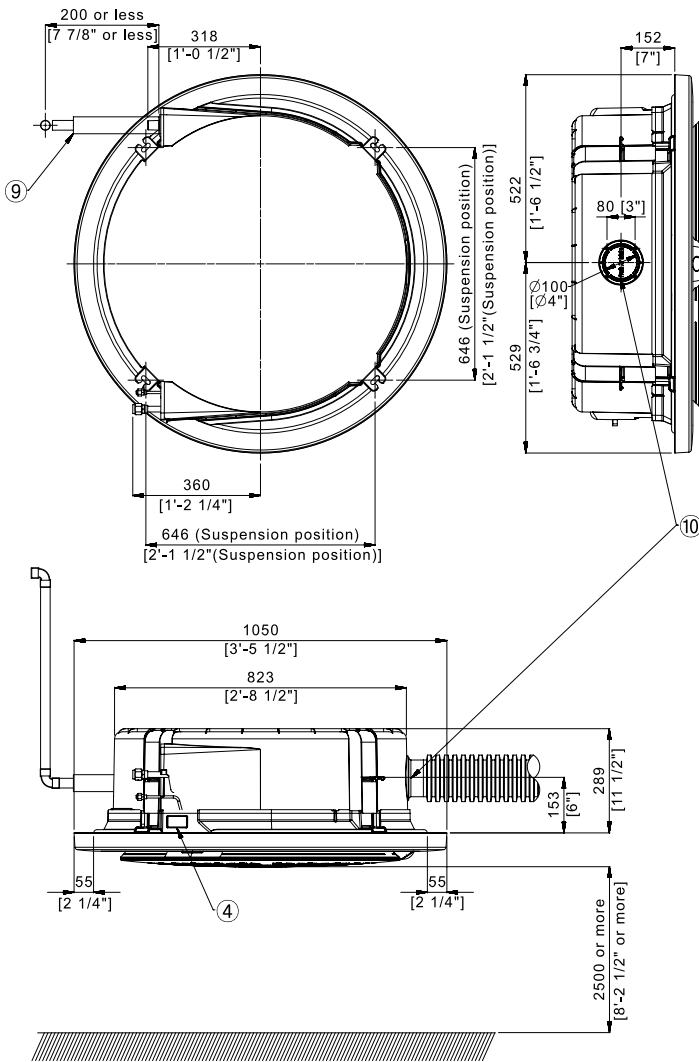
Units: mm [inches]



NO	Name
1	Refrigerant liquid pipe
2	Refrigerant gas pipe
3	Condensate drain
4	Power supply/communication wiring conduits
5	Air discharge opening
6	Air suction grille
7	Suction rim for booster fan
8	Corner decoration cover
9	Drain hose
10	Fresh air intake knock-out hole
11	Display window
12	Infrared receiver

Category	Inspection hole	
	Recessed installation	Exposed installation
	Integrated	Suspended
Square Panel	1 ea	
Circle Panel	2 ea	

1. Make sure the spacing between the ceiling and the cassette is no more than 10 mm [3/8"].
2. When the conditions exceed 30 °C and RH 80 % in the ceiling or fresh air inducted into the ceiling, additional insulation is required (polythene foam, thickness 10 mm [3/8"] or more).
3. Open type panel model code: PC4NUNMAN
4. The circular panel is available by default in the exposed installation.
5. Make inspection holes on the ceiling for easier installation and maintenance, as shown in the following table. (An inspection hole must be at least 450 mm x 450 mm in size.)
6. A suspended ceiling structure can substitute for the inspection holes.



NO	Name
1	Refrigerant liquid pipe
2	Refrigerant gas pipe
3	Condensate drain
4	Power supply/communication wiring conduits
5	Air discharge opening
6	Air suction grille
7	Suction rim for booster fan
8	Corner decoration cover
9	Drain hose
10	Fresh air intake knock-out hole
11	Display window
12	Infrared receiver

Category	Inspection hole	
	Recessed installation	Exposed installation
	Integrated	Suspended
Square Panel	1 ea	
Circle Panel	2 ea	

1. Make sure the spacing between the ceiling and the cassette is no more than 10 mm [3/8"].
2. When the conditions exceed 30 °C and RH 80 % in the ceiling or fresh air inducted into the ceiling, additional insulation is required (polythene foam, thickness 10 mm [3/8"] or more)
3. Open type panel model code: PC4NUNMAN
4. The circular panel is available by default in the exposed installation.
5. Make inspection holes on the ceiling for easier installation and maintenance, as shown in the following table. (An inspection hole must be at least 450 mm x 450 mm in size.)
6. A suspended ceiling structure can substitute for the inspection holes.





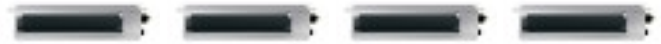




# Specifications

## LSP Duct (drain pump excluded)

- Two-position field adjustable air return, on the bottom or at the rear of the unit.
- Equipped with one Sirocco fan direct driven by a single motor.
- Long-life washable HD 40 permanent filter is included.
- Auto Restart function.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).



Model				AM017ANLDKH/EU	AM022ANLDKH/EU	AM028ANLDKH/EU	AM036ANLDKH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz
Performance	Capacity (Nominal)	Cooling	kW	1.7	2.2	2.8	3.6
		Heating	kW	1.9	2.5	3.2	4.0
Power	Power Input (Nominal)	Cooling	W	28	30	34	40
		Heating	W	28	30	36	42
	Current Input (Nominal)	Cooling	A	0.23	0.25	0.28	0.33
		Heating	A	0.23	0.25	0.30	0.35
Fan	Type		-	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor	Output x n	W	69 x 1	69 x 1	69 x 1	69 x 1
	Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min	5.5 / 4.5 / 3.8	6.0 / 4.9 / 3.8	7.1 / 5.2 / 4.4	8.2 / 6.5 / 4.9
			l/s	91 / 74 / 63	100 / 82 / 63	118 / 86 / 73	137 / 108 / 82
	External Static Pressure	Min/Std/Max	mmAq	0.0 / 1.0 / 3.0	0.0 / 1.0 / 3.0	0.0 / 1.0 / 3.0	0.0 / 1.0 / 3.0
Pa			0.00/9.81/29.42	0.00/9.81/29.42	0.00/9.81/29.42	0.00/9.81/29.42	
Piping Connections	Liquid Pipe	ø, mm	6.35	6.35	6.35	6.35	
		ø, inch	1/4	1/4	1/4	1/4	
	Gas Pipe	ø, mm	12.70	12.70	12.70	12.70	
		ø, inch	1/2	1/2	1/2	1/2	
Drain Pipe	ø, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)		
Field Wiring	Power Source Wire	Below 20 m/over 20 m	mm <sup>2</sup>	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5
	Transmission Cable		mm <sup>2</sup>	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Control Method		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	25 / 22 / 19	26 / 23 / 19	28 / 24 / 19	31 / 26 / 20
	Sound Power		dB(A)	40	42	44	46
Dimensions	Net Weight		kg	14.9	14.9	14.9	15.3
	Net Dimensions (W x H x D)		mm	700 x 199 x 440	700 x 199 x 440	700 x 199 x 440	700 x 199 x 440
Air Filter			-	Long-life Filter	Long-life Filter	Long-life Filter	Long-life Filter
Accessoires	Drain Pump		-	N/A	N/A	N/A	N/A

## Accessories



Wireless Remote Controller	Touch Controller	Wired Remote Controller	Wi-Fi Kit	Wireless Receiver Kit	External Room Sensor	Drain pump
AR-EH03E (to be matched with MRK-A10N)	MWR-SH11N	MWR-WG00*N	MIM-H04EN	MRK-A10N (to be matched with AR-EH03E)	MRW-TA	MDP-E075SEE3D

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



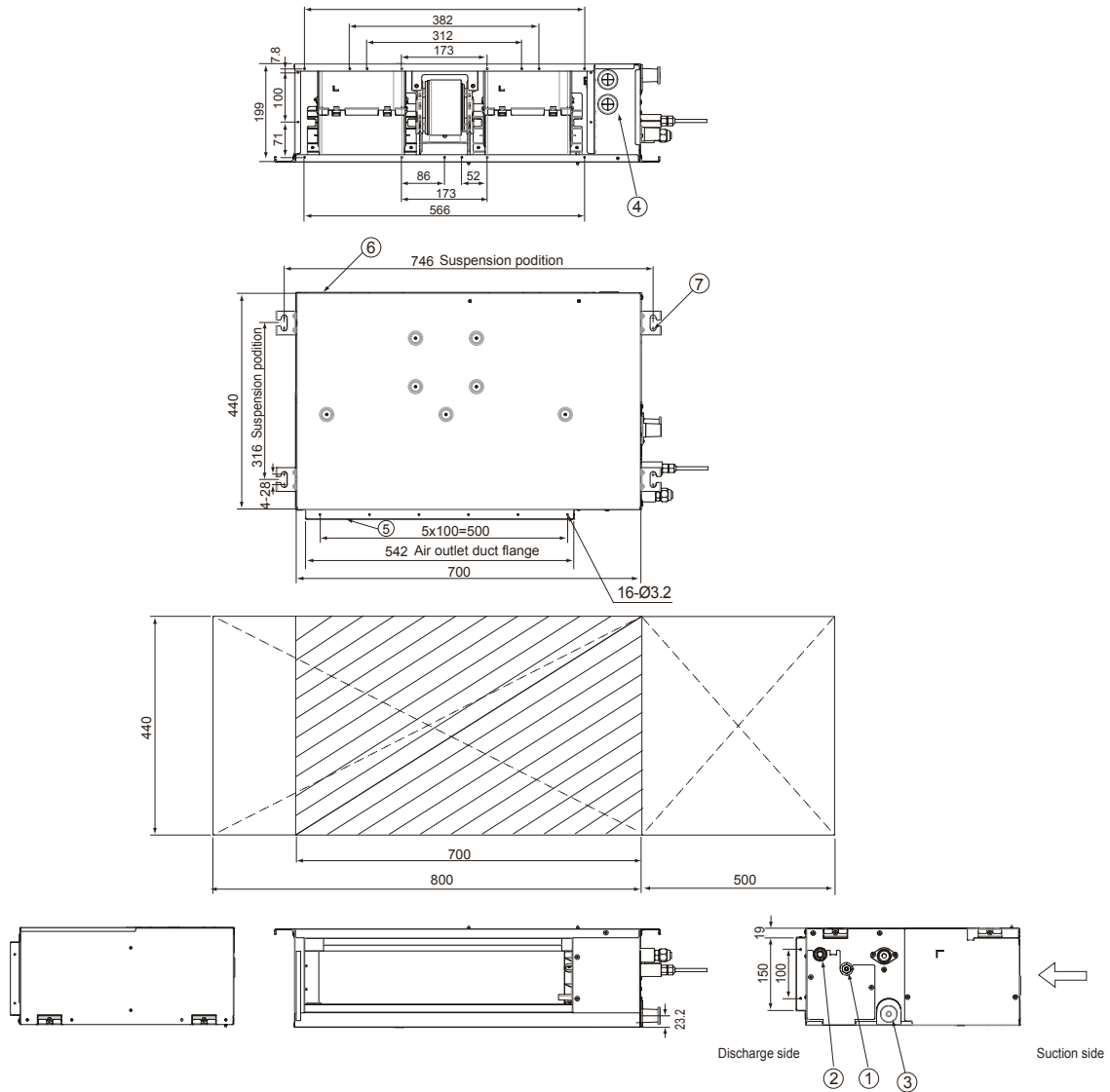
AM045ANLDKH/EU	AM056ANLDKH/EU	AM071ANLDKH/EU	AM090ANLDKH/EU
1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz
4.5	5.6	7.1	9.0
5.0	6.3	8.0	10.0
51	73	82	170
46	68	77	170
0.45	0.62	0.69	0.96
0.41	0.58	0.65	0.96
Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
84 x 1	84 x 1	84 x 1	183 x 1
12.5 / 10.0 / 7.5	15.5 / 12.5 / 9.5	18.0 / 14.5 / 11.0	29.0 / 27.0 / 25.0
208 / 167 / 125	258 / 208 / 158	300 / 242 / 183	483 / 450 / 417
0.0 / 2.0 / 4.0	0.0 / 2.0 / 4.0	0.0 / 2.0 / 4.0	0.0 / 3.0 / 6.0
0.00/19.61/39.23	0.00/19.61/39.23	0.00/19.61/39.23	0.00/29.42/58.84
6.35	6.35	9.52	9.52
1/4	1/4	3/8	3/8
12.70	12.70	15.88	15.88
1/2	1/2	5/8	5/8
VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5
0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50
	R410A (Fluorinated greenhouse gas, GWP=2,088)		
EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
32 / 28 / 25	34 / 30 / 26	34 / 30 / 27	37 / 36 / 34
47	49	49	66
18.8	18.8	22.0	40.0
700 x 199 x 440	900 x 199 x 440	1,100 x 199 x 440	1,300 x 295 x 690
Long-life Filter	Long-life Filter	Long-life Filter	Long-life Filter
N/A	N/A	N/A	MDP-E075SEE3D

# Dimensional drawings

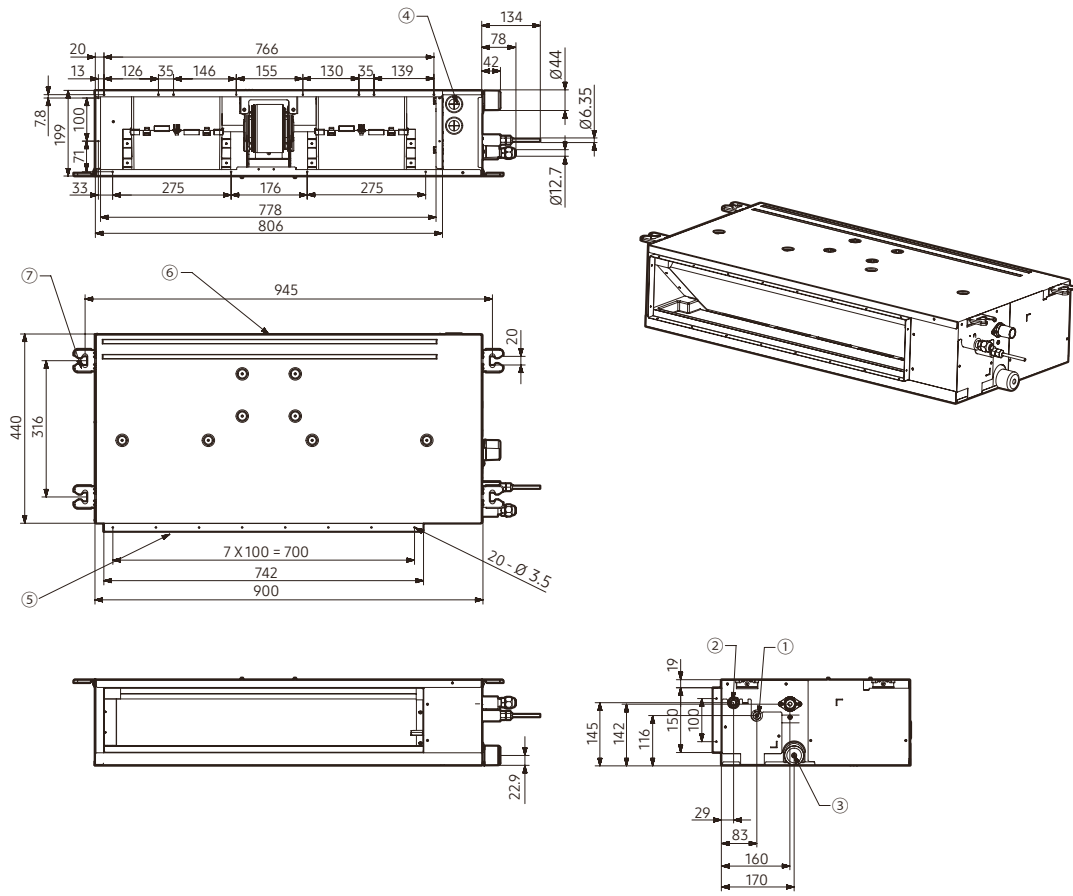
## LSP Duct (drain pump excluded)

AM017/022/028/036ANLDKH/EU

Units: mm [inches]



NO	Name	Description
1	Refrigerant Liquid Pipe	Ø6.35 [1/4"]
2	Refrigerant Gas Pipe	Ø12.70 [1/2"]
3	Drain pipe connection without drain pump	VP25 (OD 32, ID 25)
4	Power supply / Communication connection	-
5	Air discharge grille flange	-
6	Return air side	-
7	Hook	ø9.52 or M10



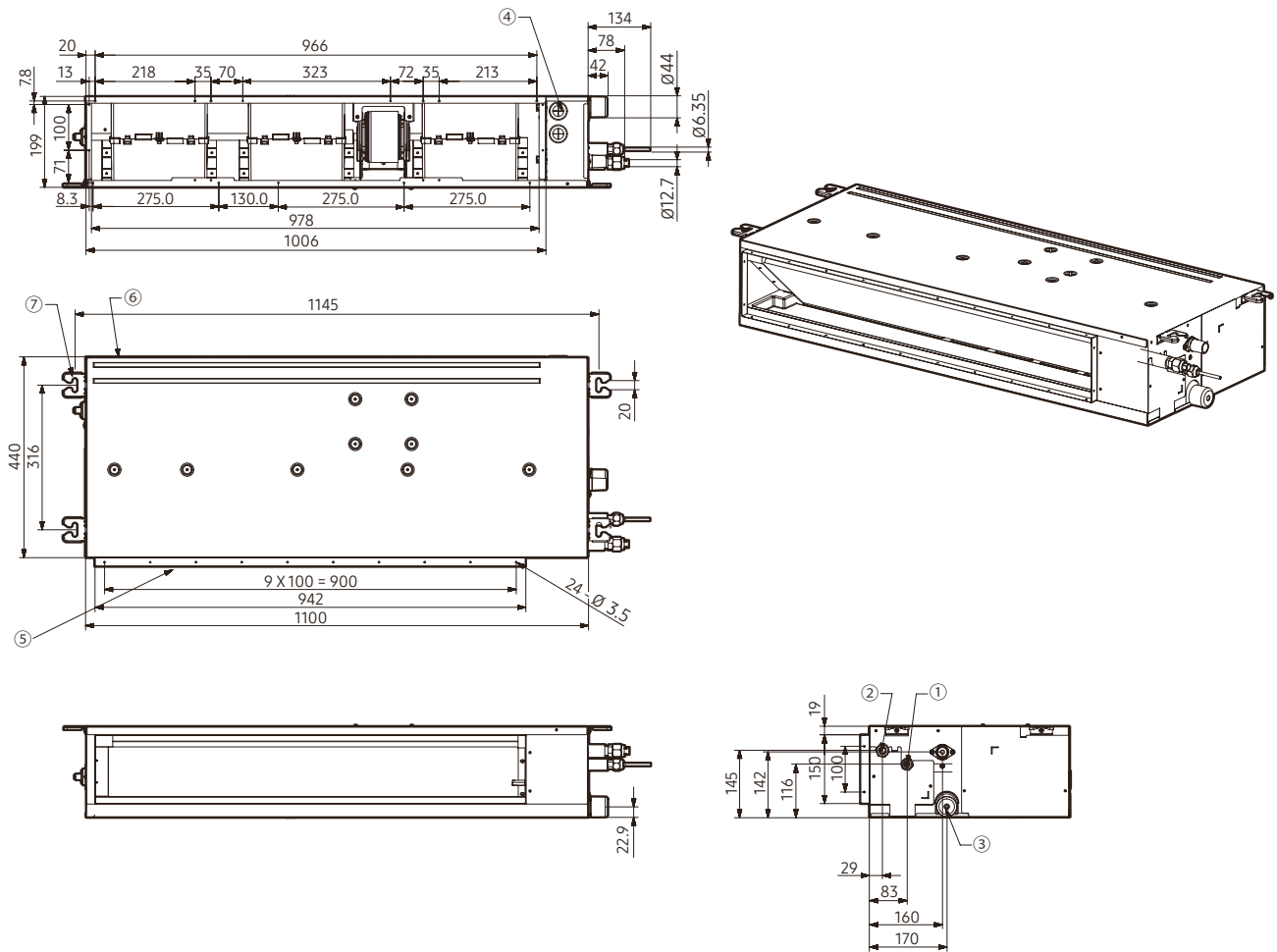
NO	Name	Description
1	Refrigerant Liquid Pipe	Ø6.35 [1/4"] Flare Connection
2	Refrigerant Gas Pipe	Ø12.70 [1/2"] Flare Connection
3	Condensate Drain (Option)	VP25 (OD 32, ID 25)
4	Power & Comm. Wiring Conduits	-
5	Supply Air Flange	-
6	Return Air Flange	-
7	Hook	-

# Dimensional drawings

## LSP Duct (drain pump excluded)

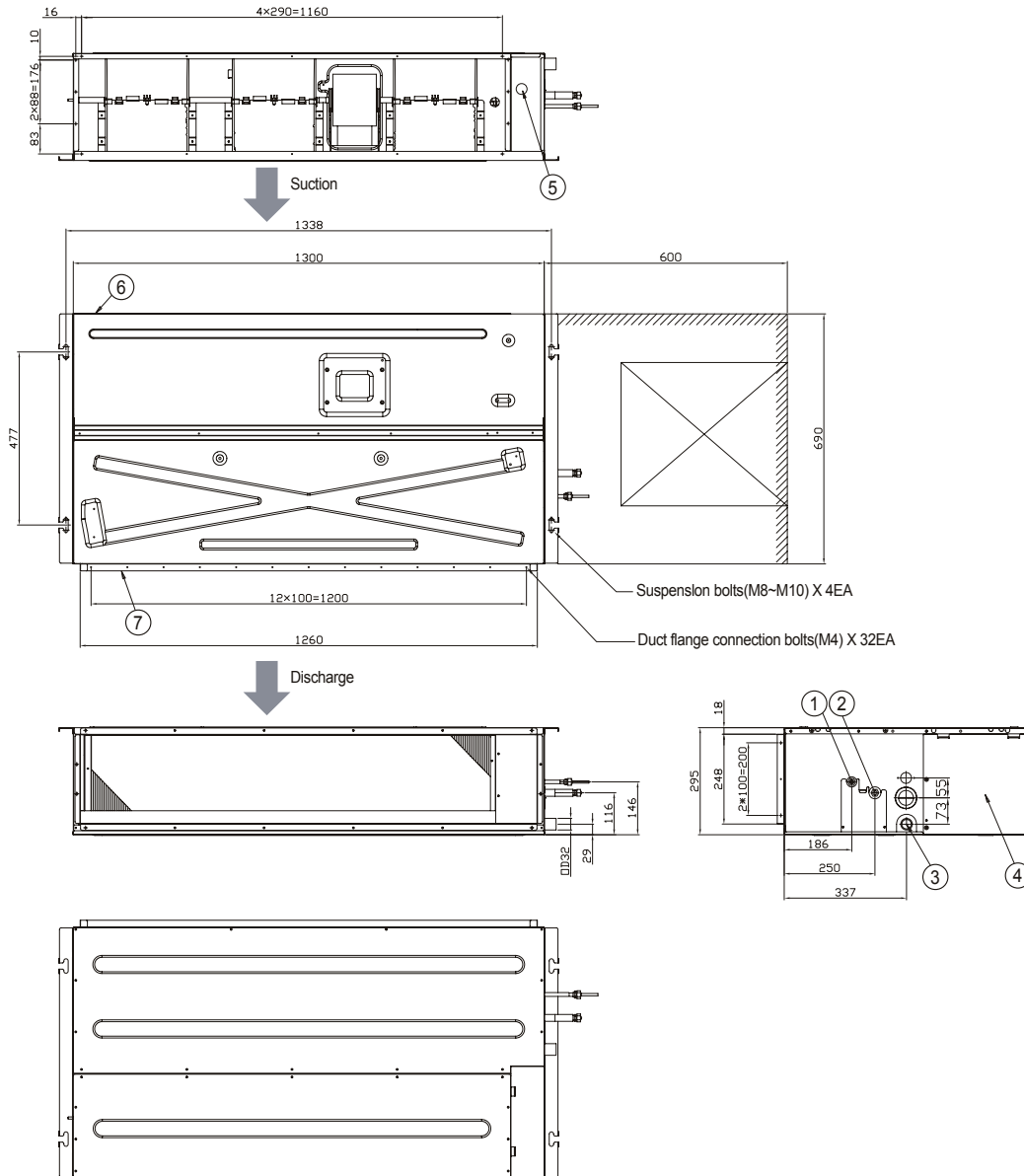
AM071ANLDKH/EU

Units: mm [inches]



NO	Name	Description
1	Refrigerant Liquid Pipe	Ø9.52 [3/8"] Flare Connection
2	Refrigerant Gas Pipe	Ø15.88 [5/8"] Flare Connection
3	Condensate Drain (Option)	VP25 (OD 32, ID 25)
4	Power & Comm. Wiring Conduits	-
5	Supply Air Flange	-
6	Return Air Flange	-
7	Hook	-



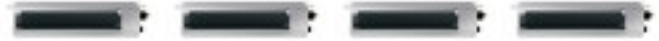


NO	Name	Description
1	Refrigerant Liquid Pipe	Ø9.52 [3/8"] Flare Connection
2	Refrigerant Gas Pipe	Ø15.88 [5/8"] Flare Connection
3	Drain pipe connection without drain pump	VP25 (OD 32, ID 25)
4	Control unit	-
5	Conduit for power supply & communication wiring	-
6	Return air side	-
7	Air outlet duct flange	-

# Specifications

## LSP Duct (drain pump included)

- Two-position field adjustable air return, on the bottom or at the rear of the unit.
- Equipped with one Sirocco fan direct driven by a single motor.
- Long-life washable HD 40 permanent filter is included.
- Auto Restart function.
- Built-in condensation drain pump (included).
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).



Model			AM017KNLDEH/EU	AM022KNLDEH/EU	AM028KNLDEH/EU	AM036KNLDEH/EU	
Power Supply		Φ, #, V, Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	
Performance	Capacity (Nominal)	Cooling	kW	1.7	2.2	2.8	3.6
		Heating	kW	1.9	2.5	3.2	4.0
Power	Power Input (Nominal)	Cooling	W	28	30	34	40
		Heating	W	28	30	36	42
	Current Input (Nominal)	Cooling	A	0.23	0.25	0.28	0.33
		Heating	A	0.23	0.25	0.30	0.35
Fan	Type		-	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor	Output x n	W	69 x 1	69 x 1	69 x 1	69 x 1
	Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min	5.45/4.45/3.80	6.00/4.90/3.80	7.05/5.15/4.35	8.20/6.50/4.90
			l/s	90.83/74.17/63.33	100.00/81.67/63.33	117.50/85.83/72.50	136.67/108.33/81.67
External Static Pressure	Min/Std/Max	mmAq	0.00/1.00/3.00	0.00/1.00/3.00	0.00/1.00/3.00	0.00/1.00/3.00	
		Pa	0.00/9.81/29.42	0.00/9.81/29.42	0.00/9.81/29.42	0.00/9.81/29.42	
Piping Connections	Liquid Pipe	ø, mm	6.35	6.35	6.35	6.35	
		ø, inch	1/4	1/4	1/4	1/4	
	Gas Pipe	ø, mm	12.70	12.70	12.70	12.70	
		ø, inch	1/2	1/2	1/2	1/2	
Drain Pipe	ø, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)		
Field Wiring	Power Source Wire	mm <sup>2</sup>	1.5–2.5	1.5–2.5	1.5–2.5	1.5–2.5	
	Transmission Cable	mm <sup>2</sup>	0.75–1.50	0.75–1.50	0.75–1.50	0.75–1.50	
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Control Method		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	25/22/19	26/23/19	28/24/19	31/26/ 20
	Sound Power	Cooling	dB(A)	40	42	44	46
Dimensions	Net Weight		kg	15.3	15.3	15.3	15.7
	Net Dimensions (W x H x D)		mm	700 x 199 x 440	700 x 199 x 440	700 x 199 x 440	700 x 199 x 440
Air Filter			-	Long-life Filter	Long-life Filter	Long-life Filter	Long-life Filter
Additional Accessories	Drain Pump		-	Included	Included	Included	Included
	Max. Lifting Height/Displacement		mm / litres/h	750/24	750/24	750/24	750/24

## Accessories



Wireless Remote Controller

AR-EH03E  
(to be matched  
with MRK-A10N)



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Wi-Fi Kit

MIM-H04EN



Wireless Receiver Kit

MRK-A10N  
(to be matched  
with AR-EH03E)



External Room Sensor

MRW-TA

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



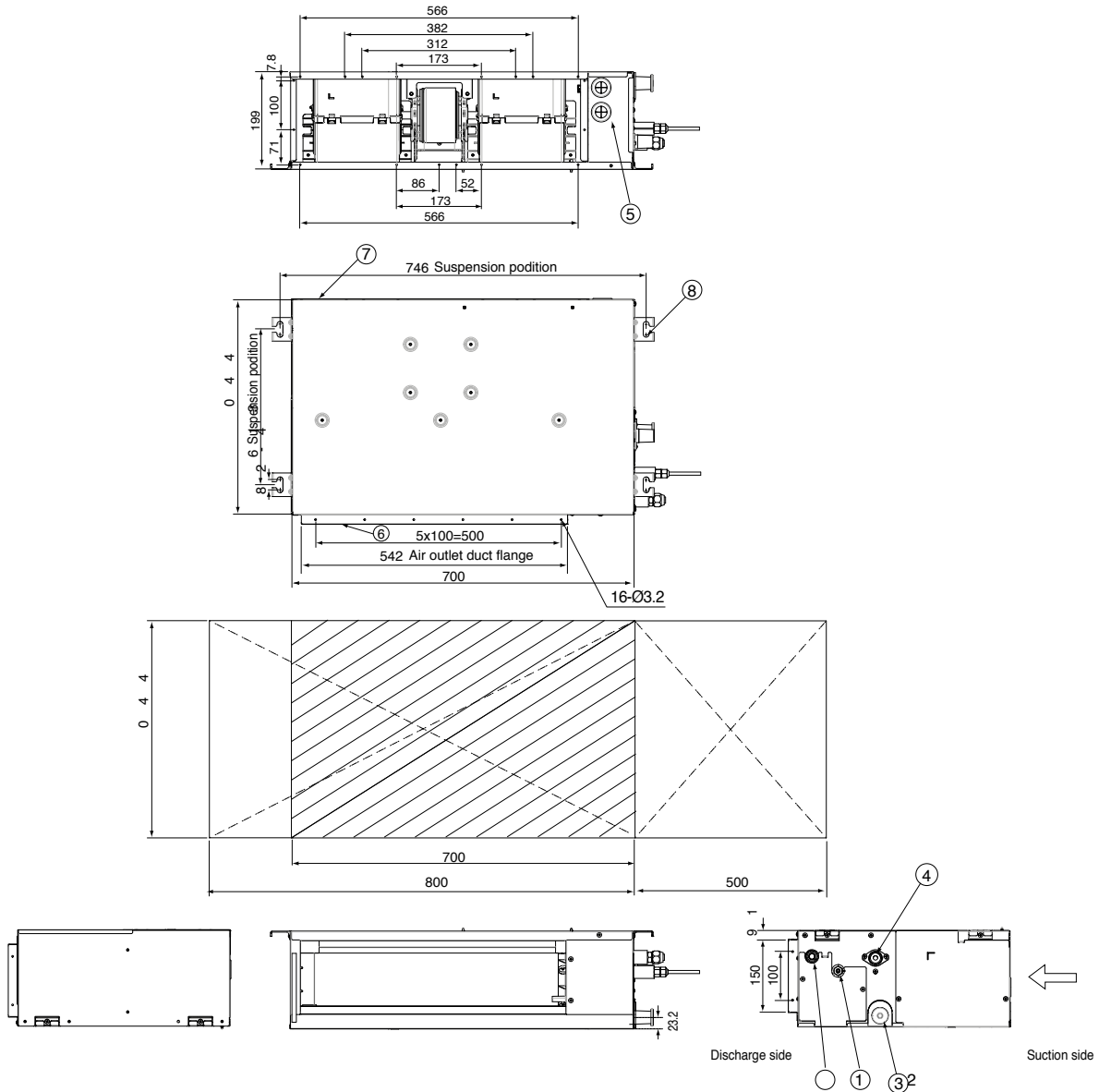
	AM045MNLDEH/EU	AM056MNLDEH/EU	AM071MNLDEH/EU
	1Ø, 2, 220–240 V, 50 Hz	1Ø, 2, 220–240 V, 50 Hz	1Ø, 2, 220–240 V, 50 Hz
	4.5	5.6	7.1
	5.0	6.3	8.0
	51	73	82
	46	68	77
	0.45	0.62	0.69
	0.41	0.58	0.65
	Sirocco Fan	Sirocco Fan	Sirocco Fan
	84 x 1	84 x 1	84 x 1
	12.50/10.00/7.50	15.50/12.50/9.50	18.00/14.50/11.00
	208.33/166.67/125.00	258.33/208.33/158.33	300.00/241.67/183.33
	0.00/2.00/4.00	0.00/2.00/4.00	0.00/2.00/4.00
	0.00/19.61/39.23	0.00/19.61/39.23	0.00/19.61/39.23
	6.35	6.35	9.52
	1/4	1/4	3/8
	12.70	12.70	15.88
	1/2	1/2	5/8
	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
	1.5–2.5	1.5–2.5	1.5–2.5
	0.75–1.50	0.75–1.50	0.75–1.50
	R410A (Fluorinated greenhouse gas, GWP=2,088)		
	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
	32 / 28 / 25	34 / 30 / 26	34 / 30 / 27
	47	51	53
	18.9	18.9	22.3
	900 x 199 x 440	900 x 199 x 440	1100 x 199 x 440
	Long-life Filter	Long-life Filter	Long-life Filter
	Included	Included	Included
	750/24	750/24	750/24

# Dimensional drawings

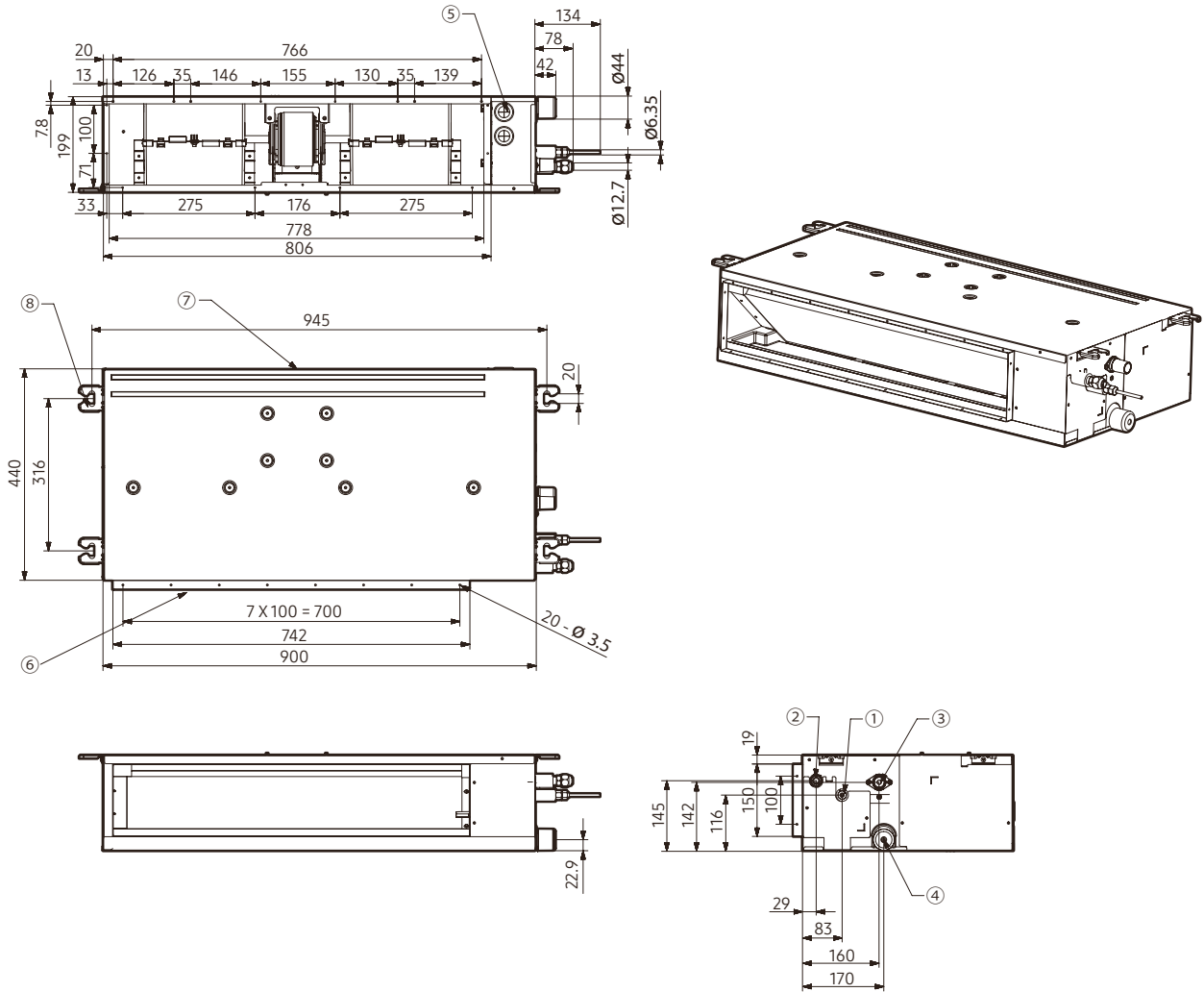
## LSP Duct (drain pump included)

AM017/022/028/036KNLDEH/EU

Units: mm [inches]



NO	Name	Description
1	Liquid pipe connection	ø6.35 Flare
2	Gas pipe connection	ø12.70 Flare
3	Drain pipe connection without drain pump	VP25 (OD 32, ID 25)
4	Drain pipe connection with drain pump	VP25 (OD 32, ID 25)
5	Power supply/communication wiring conduits	
6	Air discharge grille flange	
7	Return air side	
8	Hook	ø9.52 or M10



NO	Name	Description
1	Refrigerant Liquid Pipe	Ø6.35 [1/4"] Flare Connection
2	Refrigerant Gas Pipe	Ø12.70 [1/2"] Flare Connection
3	Condensate Drain	VP25 (OD 32, ID 25)
4	Condensate Drain (Option)	VP25 (OD 32, ID 25)
5	Power & Comm. Wiring Conduits	-
6	Supply Air Flange	-
7	Return Air Flange	-
8	Hook	-

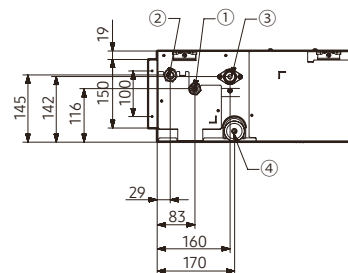
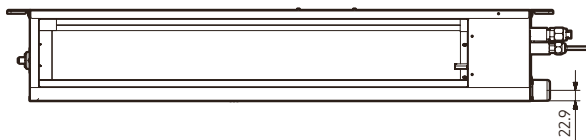
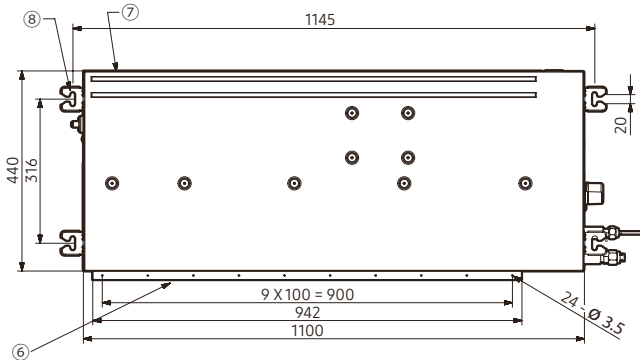
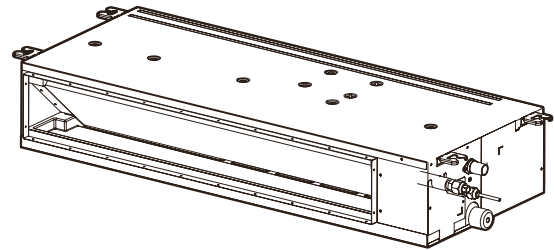
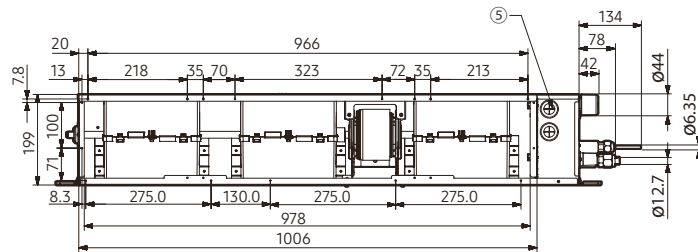


# Dimensional drawings

## LSP Duct (drain pump included)

AM071MNLDEH/EU

Units: mm [inches]



NO	Name	Description
1	Refrigerant Liquid Pipe	Ø9.52 [3/8"] Flare Connection
2	Refrigerant Gas Pipe	Ø15.88 [5/8"] Flare Connection
3	Condensate Drain	VP25 (OD 32, ID 25)
4	Condensate Drain (Option)	VP25 (OD 32, ID 25)
5	Power & Comm. Wiring Conduits	-
6	Supply Air Flange	-
7	Return Air Flange	-
8	Hook	-



# Specifications

## MSP Duct (drain pump included)

- Two-position field adjustable air return, on the bottom or at the rear of the unit.
- Equipped with one Sirocco fan direct driven by a single motor.
- Long-life washable permanent filter is included.
- Auto Restart function.
- Automatic ESP setting.
- Built-in condensation drain pump.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).



Model			AM022ANMPKH/EU	AM028ANMPKH/EU	AM036ANMPKH/EU	AM045ANMPKH/EU	
Power Supply		Φ, #, V, Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	
Performance	Capacity (Nominal)	Cooling	kW	2.2	2.8	3.6	4.5
		Heating	kW	2.5	3.2	4.0	5.0
Power	Power Input (Nominal)	Cooling	W	42	42	45	55
		Heating	W	42	42	45	55
	Current Input (Nominal)	Cooling	A	0.4	0.4	0.4	0.5
		Heating	A	0.4	0.4	0.4	0.5
Current Input (Nominal)	MCA	A	0.67	0.67	0.81	0.89	
	MFA/MOP	A	15	15	15	15	
Fan	Type	-	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	
	Number of Fans	ea	2	2	2	2	
	Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min	10.5 / 9.0 / 7.0	10.5 / 9.0 / 7.0	12.0 / 9.5 / 7.5	14.0 / 11.0 / 8.0
			l/s	170 / 150 / 115	170 / 150 / 115	200 / 158 / 125	233 / 183 / 133
	External Pressure	Min/Std/Max	mmAq	0 / 2.5 / 15	0 / 2.5 / 15	0 / 2.5 / 15	0 / 3 / 15
		Pa	0.00 / 24.52 / 147.10	0.00 / 24.52 / 147.10	0.00 / 24.52 / 147.10	0.00 / 29.42 / 147.10	
Fan Motor	Model	-	BLDC motor (feedback)	BLDC motor (feedback)	BLDC motor (feedback)	BLDC motor (feedback)	
	Output x n	W	153 x 1	153 x 1	153 x 1	153 x 1	
Piping Connections	Liquid Pipe	ø, mm	6.35	6.35	6.35	6.35	
		ø, inch	1/4	1/4	1/4	1/4	
	Gas Pipe	ø, mm	12.70	12.70	12.70	12.70	
		ø, inch	1/2	1/2	1/2	1/2	
Drain Pipe	ø, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)		
Wiring Connections	For power supply	Minimum	mm <sup>2</sup>	1.5	1.5	1.5	
	Connection with Indoor	Minimum	mm <sup>2</sup>	0.75	0.75	0.75	
	Remark	-	F1, F2	F1, F2	F1, F2	F1, F2	
Refrigerant	Type	-	R410A (Fluorinated greenhouse gas, GWP=2,088)				
	Control Method	-	EEV Included	EEV Included	EEV Included	EEV Included	
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	28/26/24	28/26/24	30/27/24	31/28/25
	Sound Power	Cooling (Nominal)	dB(A)	50	51	53	54
Dimensions	Net Weight		kg	279	279	27.5	27.5
	Net Dimensions (W x H x D)		mm	850 x 250 x 700	850 x 250 x 700	850 x 250 x 700	850 x 250 x 700
Air Filter	Type	-	Long-life filter	Long-life filter	Long-life filter	Long-life filter	
Additional Accessories	Drain Pump	Model	INCLUDED	INCLUDED	INCLUDED	INCLUDED	
		Max. Lifting Height	mm	750	750	750	750

## Accessories



### Wireless Remote Controller

AR-EH03E  
(to be matched  
with MRK-A10N)

### Touch Controller

MWR-SH11N

### Wi-Fi Kit

MIM-H04EN

### Wireless Receiver Kit

MRK-A10N  
(to be matched  
with AR-EH03E)

### External Room Sensor

MRW-TA

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



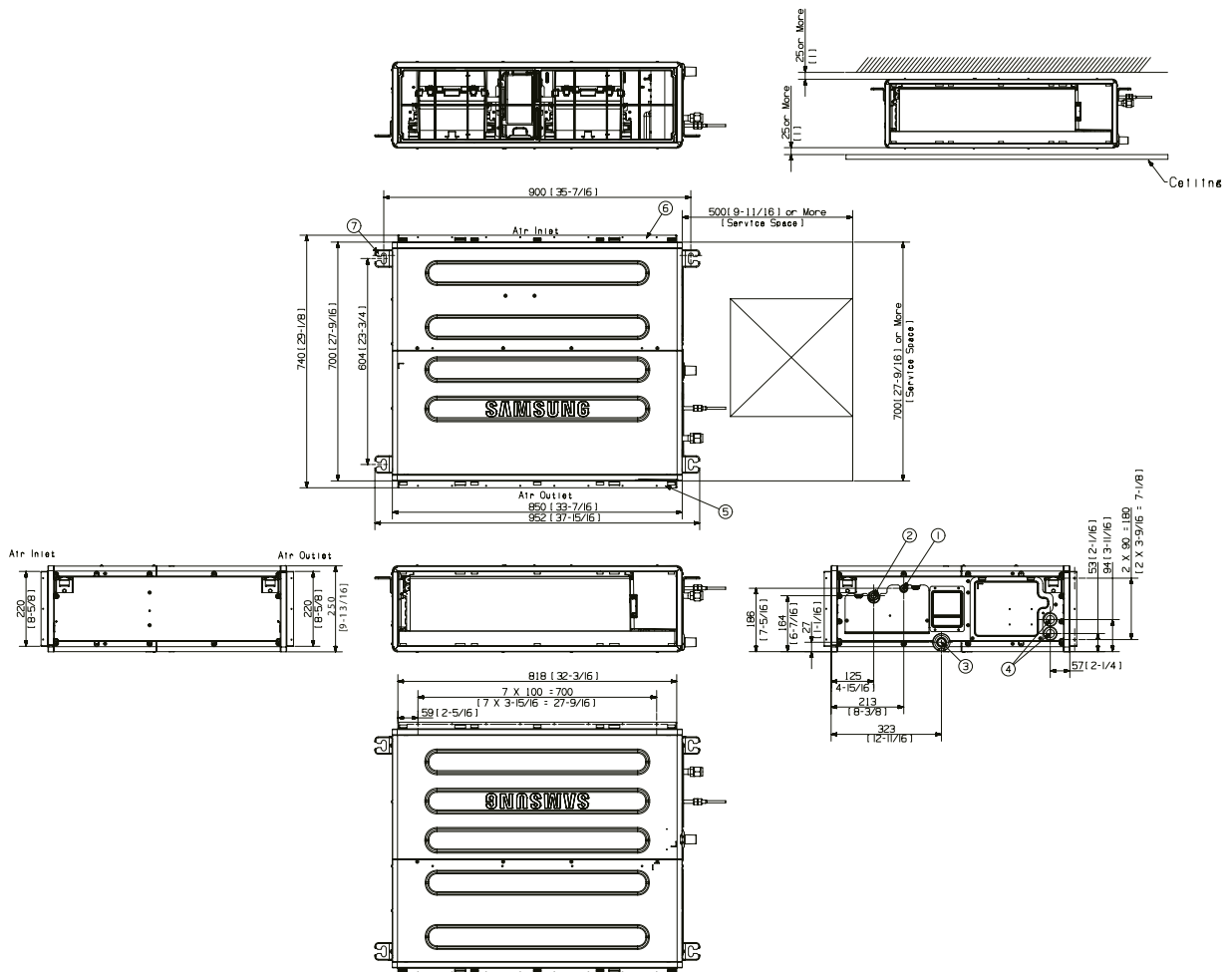
AM056ANMPKH/EU	AM071ANMPKH/EU	AM090ANMPKH/EU	AM112ANMPKH/EU	AM128ANMPKH/EU	AM140ANMPKH/EU	AM160DNMPKH/EU
1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz
5.6	7.1	9.0	11.2	12.8	14.0	16.0
6.3	8.0	10.0	12.5	13.8	16.0	18.0
70	110	135	130	160	210	300
70	110	135	130	160	210	300
0.6	1.0	1.2	1.2	1.4	1.7	2.5
0.6	1.0	1.2	1.2	1.4	1.7	2.5
1.08	1.48	1.78	1.97	2.17	2.38	3.16
15	15	15	15	15	15	15
Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
2	2	3	3	3	3	3
16.0 / 13.5 / 9.0	22.0 / 18.0 / 13.0	27.0 / 22.0 / 16.0	30.0 / 25.0 / 18.0	36.0 / 30.0 / 23.0	40.0 / 34.0 / 24.0	45.0 / 35.0 / 25.0
267 / 225 / 150	350 / 300 / 217	450 / 367 / 267	500 / 417 / 300	600 / 500 / 383	667 / 567 / 400	750 / 583 / 417
0 / 3 / 15	0 / 3 / 15	0 / 4 / 15	0 / 5.2 / 15	0 / 5.2 / 15	0 / 5.2 / 15	0 / 5.2 / 15
0.00/29.42/147.10	0.00/29.42/147.10	0.00 / 39.23/147.10	0.00 / 50.99/ 147.10	0.00 / 50.99/ 147.10	0.00 / 50.99/ 147.10	0.00 / 51.0/ 147.10
BLDC motor (feedback)	BLDC motor (feedback)	BLDC motor (feedback)	BLDC motor (feedback)	BLDC motor (feedback)	BLDC motor (feedback)	BLDC motor (feedback)
153 x 1	153 x 1	153 x 1	244 x 1	244 x 1	244 x 1	350 x 1
6.35	9.52	9.52	9.52	9.52	9.52	9.5
1/4	3/8	3/8	3/8	3/8	3/8	3/8
12.70	15.88	15.88	15.88	15.88	15.88	15.9
1/2	5/8	5/8	5/8	5/8	5/8	5/8
VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
1.5	1.5	1.5	1.5	1.5	1.5	1.5
0.75	0.75	0.75	0.75	0.75	0.75	0.8
F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP=2,088)						
EEV Included	EEV Included	EEV Included	EEV Included	EEV Included	EEV Included	EEV Included
32/29/25	36/32/27	37/33/29	36/33/30	37/34/31	39/36/33	43/39/35
57	60	61	61	62	64	65
27.5	27.5	35.0	39.5	39.5	39.5	44.6
850 x 250 x 700	850 x 250 x 700	1,200 x 250 x 700	1,300 x 300 x 700	1,300 x 300 x 700	1,300 x 300 x 700	1300 x 300 x 700
Long-life filter	Long-life filter	Long-life filter	Long-life filter	Long-life filter	Long-life filter	-
INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED	INCLUDED
750	750	750	750	750	750	750

# Dimensional drawings

## MSP Duct (drain pump included)

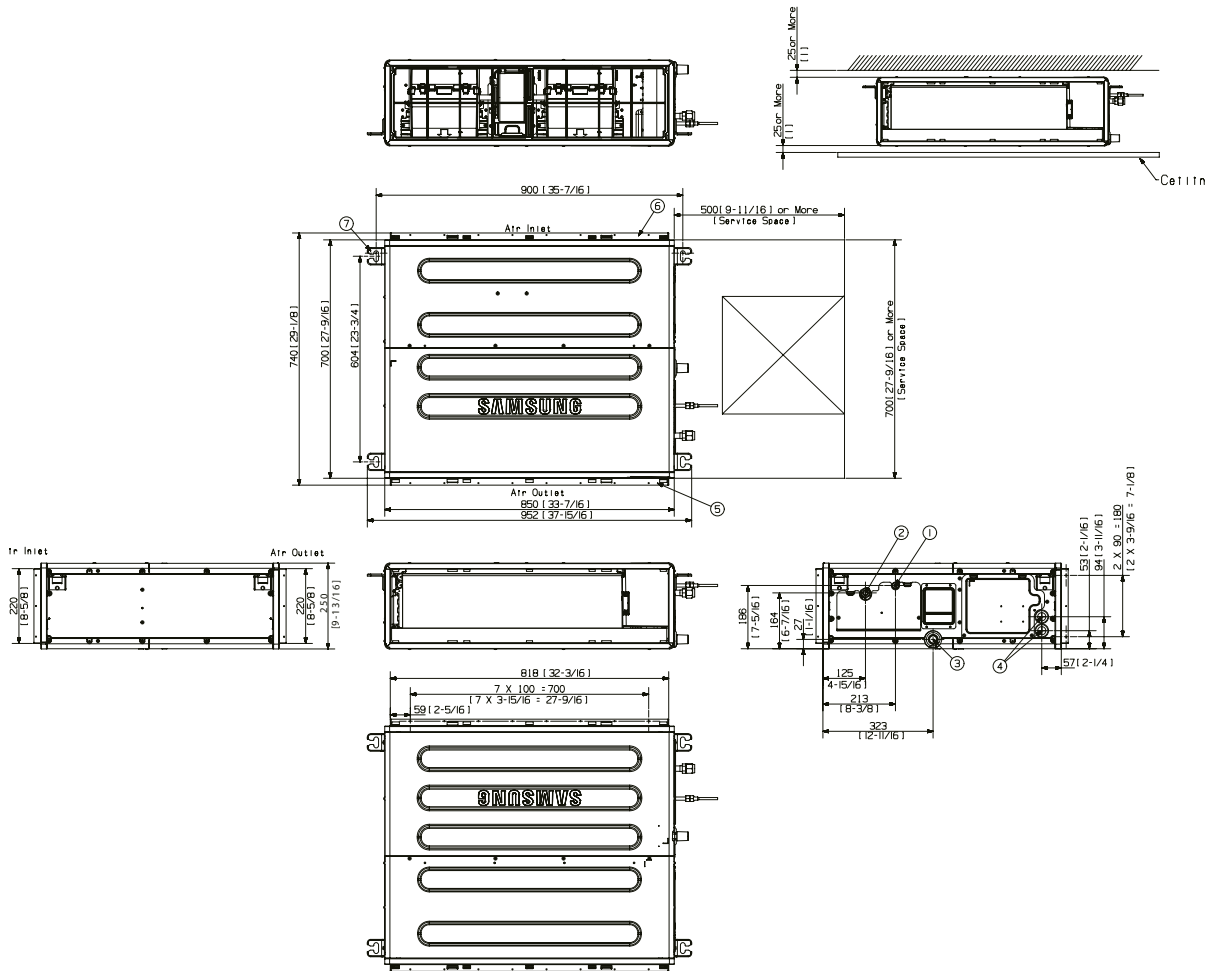
AM022/028ANMPKH/EU

Units: mm [inches]



NO	Name	Description
1	Liquid pipe connection	ø6.35 Flare
2	Gas pipe connection	ø12.70 Flare
3	Drain pipe connection without drain pump	VP25 (OD 32, ID 25)
4	Drain pipe connection with drain pump	VP25 (OD 32, ID 25)
5	Control unit	
6	Power supply/communication wiring conduits	
7	Return air side	
8	Air outlet duct flange	





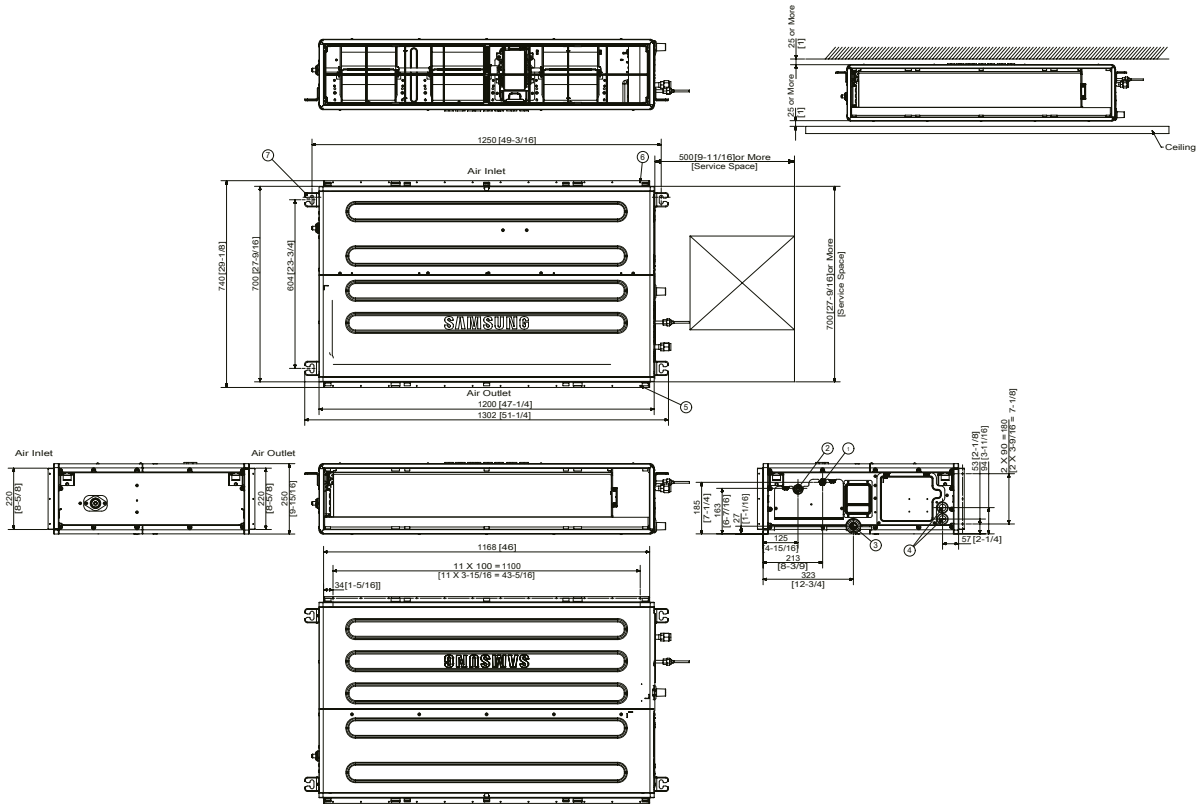
NO	Name	Description
		AM036/045/056ANMPKH/EU
		AM071ANMPKH/EU
1	Refrigerant Liquid Pipe	ø6.35 Flare
2	Refrigerant Gas Pipe	ø12.70 Flare
3	Condensate Drain	VP25 (OD 32, ID 25)
4	Power & Comm. Wiring Conduits	-
5	Supply Air Flange	-
6	Return Air Flange	-
7	Hook	-

# Dimensional drawings

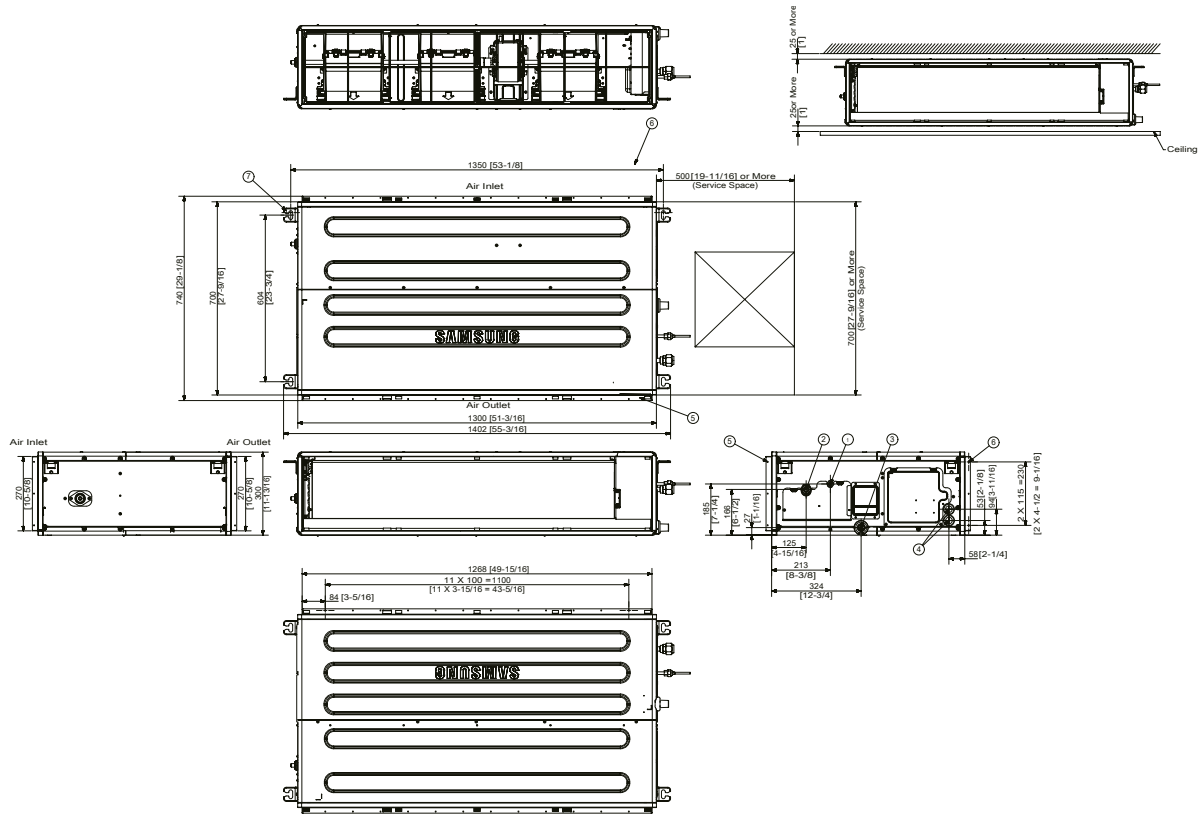
## MSP Duct (drain pump included)

AM090ANMPKH/EU

Units: mm [inches]



NO	Name	Description
1	Refrigerant Liquid Pipe	Ø9.52 [3/8"] Flare Connection
2	Refrigerant Gas Pipe	Ø15.88 [5/8"] Flare Connection
3	Condensate Drain	VP25 (OD 32, ID 25)
4	Power & Comm. Wiring Conduits	-
5	Supply Air Flange	-
6	Return Air Flange	-
7	Hook	-



NO	Name	Description
1	Refrigerant Liquid Pipe	Ø9.52 [3/8"] Flare Connection
2	Refrigerant Gas Pipe	Ø15.88 [5/8"] Flare Connection
3	Condensate Drain	VP25 (OD 32, ID 25)
4	Power & Comm. Wiring Conduits	-
5	Supply Air Flange	-
6	Return Air Flange	-
7	Hook	-

# Specifications

## HSP Duct

- Two-position field adjustable air return, on the bottom or at the rear of the unit.
- Equipped with two Sirocco fans direct driven by a single motor.
- Auto Restart function.
- Auto ESP setting (model-specific). Long-life HD 40 permanent filter is included (model-specific).
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).



Model				AM090ANHPKH/EU	AM112ANHPKH/EU	AM128ANHPKH/EU	
Power Supply			Φ, #, V, Hz	1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz	
Performance	Capacity (Nominal)	Cooling	kW	9.0	11.2	12.8	
		Heating	kW	10.0	12.5	13.8	
Power	Power Input (Nominal)	Cooling	W	145.0	130	185	
		Heating	W	145.0	130	185	
	Current Input (Nominal)	Cooling	A	1.20	1.20	1.30	
		Heating	A	1.20	1.20	1.30	
	Current Input (Nominal)	MCA	A	2.05	2.41	2.96	
		MFA/MOP	A	15	15	15	
Fan	Type		-	Sirocco Fan	Sirocco Fan	Sirocco Fan	
	Number of Fans		ea	3	3	3	
	Airflow Rate	H/M/L (UL)	m³/min		29.00/25.00/22.00	32.0 / 26.0 / 20.0	37.0 / 30.0 / 22.0
			l/s		483.00 / 417.00 / 367.00	533.00 / 433.00 / 333.00	617.00 / 500.00 / 367.00
	External Static Pressure	Min/Std/Max	mmAq		0 / 3.00 / 20.00	3.00 / 6.20 / 20.00	3.00 / 6.20 / 20.00
Pa				0 / 29.42 / 196.13	29.42 / 60.80 / 196.13	29.42 / 60.80 / 196.13	
Fan Motor	Model		-	BLDC motor	BLDC motor	BLDC motor	
	Output x n		W	153 x 1	350 x 1	350 x 1	
Piping Connections	Liquid Pipe		ø, mm	9.52	9.52	9.52	
			ø, inch	3/8"	3/8"	3/8"	
	Gas Pipe		ø, mm	15.88	15.88	15.88	
			ø, inch	5/8"	5/8"	5/8"	
Drain Pipe		ø, mm	VP25 (OD 32,ID 25)	VP25 (OD 32,ID 25)	VP25 (OD 32,ID 25)		
Field Wiring	Power Source Wire	Below 20 m / over 20 m	mm²	1.5	1.5	1.5	
	Transmission Cable		mm²	0.75	0.75	0.75	
	Remark		-	F1,F2	F1,F2	F1,F2	
Refrigerant	Type		-				
	Control Method		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	
Sound <sup>1</sup>	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	34/31/28	36/33/30	39/36/33	
	Sound Power	Cooling	dB(A)	60	61	64	
Dimensions	Net Weight		kg	35.4	44.5	44.5	
	Net Dimensions (W x H x D)		mm	1200x250x700	1300 x 300 x 700	1300 x 300 x 700	
Air Filter			-	Long-life Filter	Long-life Filter	Long-life Filter	
Additional Accessories	Drain Pump	Internal	-	INCLUDED	INCLUDED	INCLUDED	
		External	-	-	-	-	
		Max. Lifting Height/ Displacement	mm / litres/h		750/24	750/24	750/24

## Accessories



Drain Pump (optional)

MDP-G075SP/Q



Drain Pump (optional)

MDP-N047SNCTD



Wireless Remote Controller

AR-EH03E (to be matched with MRK-A10N)



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Wi-Fi Kit

MIM-H04EN



Wireless Receiver Kit

MRK-A10N (to be matched with AR-EH03E)



External Room Sensor

MRW-TA

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



AM140ANHPKH/EU	AM180JNHFKH/EU	AM224JNHFKH/EU	AM220FNHDEH/EU	AM280FNHDEH/EU
1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
14.0	18.0	22.4	22.4	28.0
16.0	20.0	25.0	25.0	31.5
220	340	530	530	790
220	340	530	530	790
1.50	1.90	2,9	3.80	5.90
1.50	1.90	2,9	3.80	5.90
3.23	5.72	-	5.80	8.64
15	15	-	15	15
Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan	Sirocco Fan
3	1	1	1	1
41.0 / 34.0 / 25.0	58.0 / 50.0 / 43.0	72.0 / 61.0 / 50.0	58.0 / 52.0 / 47.0	72.0 / 65.0 / 58.0
683.00 / 567.00 / 417.00	966.67/833.33/716.67	1200.00/1016.67/833.33	966.67/866.67/783.33	1200.00/1083.33/966.67
3.00 / 6.20 / 20.00	5.00/7.34/20.00	5.00/7.34/20.00	5.00/15.00/25.00	5.00/15.00/28.00
29.42 / 60.80 / 196.13	49.00/71.93/196.00	49.03/71.93/196.00	49.03/147.10/245.17	49.03/147.10/274.59
BLDC motor	-	-	-	-
350 x 1	630 x 1	630 x 1	400 x 1	400 x 1
9.52	9.52	9.52	9.52	9.52
3/8"	3/8"	3/8"	3/8"	3/8"
15.88	19.05	19.05	19.05	22.23
5/8"	3/4	3/4	3/4	7/8
VP25 (OD 32, ID 25)	VP25 (OD 25, ID 20)	VP25 (OD 25, ID 20)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
1.5	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5
0.75	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50
F1,F2	F1,F2	F1,F2	F1,F2	F1,F2
R410A (Fluorinated greenhouse gas, GWP=2,088)				
EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
42/38/34	43/39/35	44/40/36	45/43/41	48/46/43
65	80	81		
44.5	82.5	82.5	89.0	89.0
1300 x 300 x 700	1350 x 450 x 910	1350 x 450 x 910	1240 x 470 x 1,040	1240 x 470 x 1040
Long-life Filter	-	-	-	-
INCLUDED	MDP-G075SQ	MDP-G075SQ	MDP-N047SNC1D	MDP-N047SNC1D
-	MDP-G075SP	MDP-G075SP	-	-
750/24	-	-	750/24	750/24

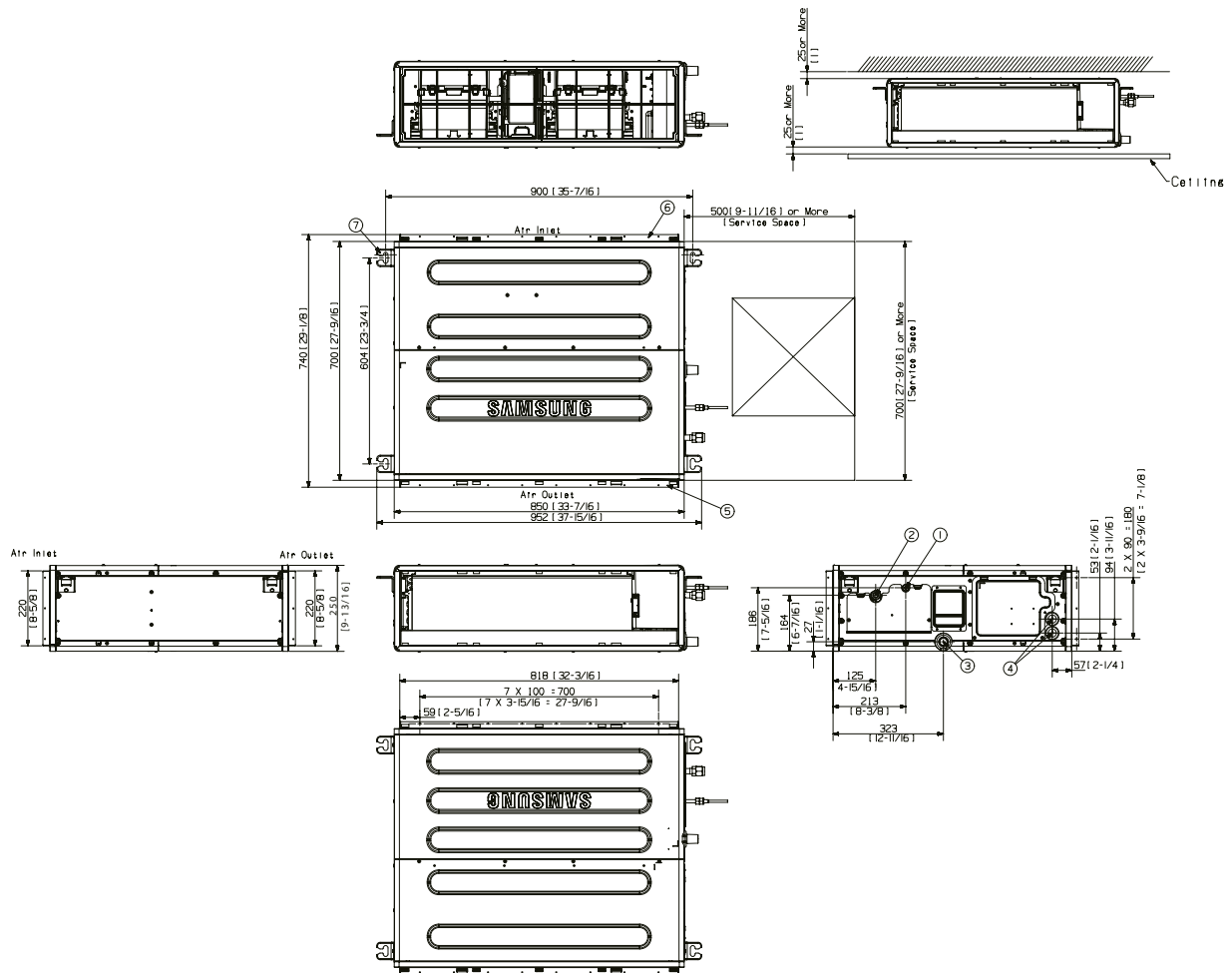


# Dimensional drawings

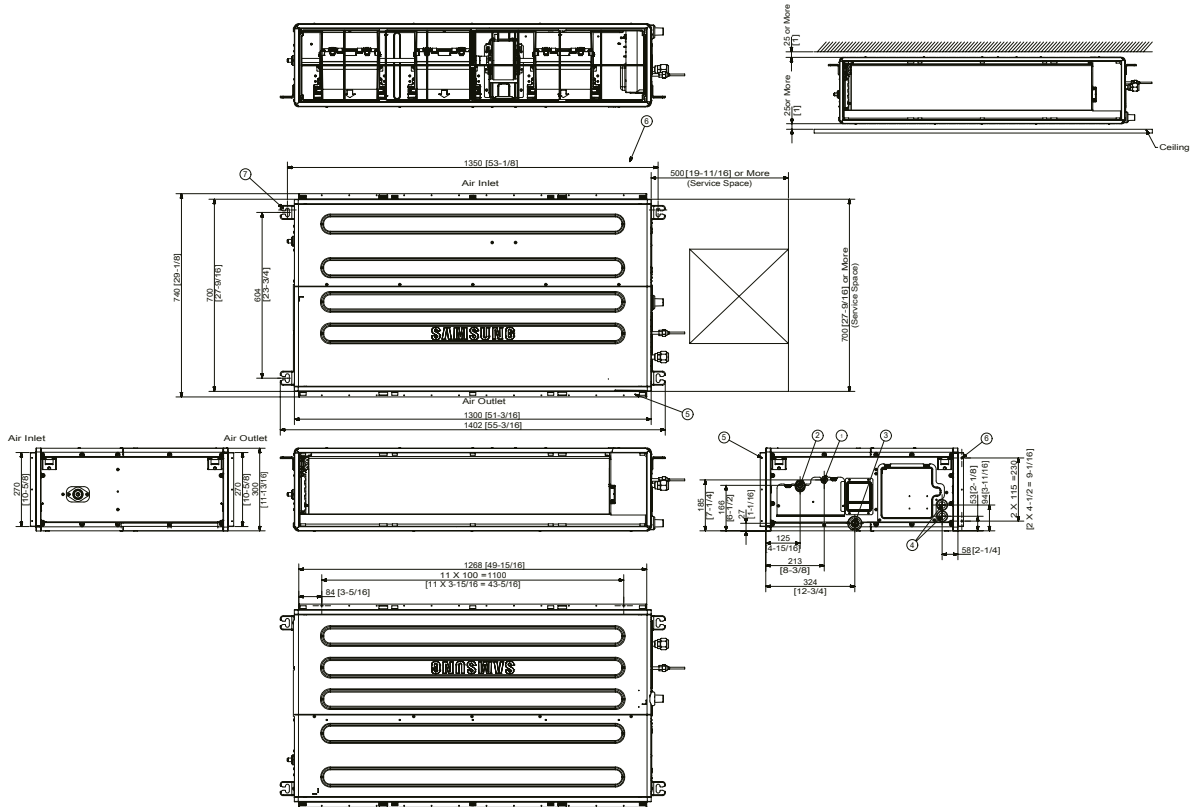
## HSP Duct

AM090ANHPKH/EU

Units: mm [inches]



NO	Name	Description
1	Refrigerant Liquid Pipe	Ø9.52 [3/8"] Flare Connection
2	Refrigerant Gas Pipe	Ø15.88 [5/8"] Flare Connection
3	Condensate Drain	VP25 (OD 32, ID 25)
4	Power & Comm. Wiring Conduits	-
5	Supply Air Flange	-
6	Return Air Flange	-
7	Hook	-
8	Hook	3/8 or M10



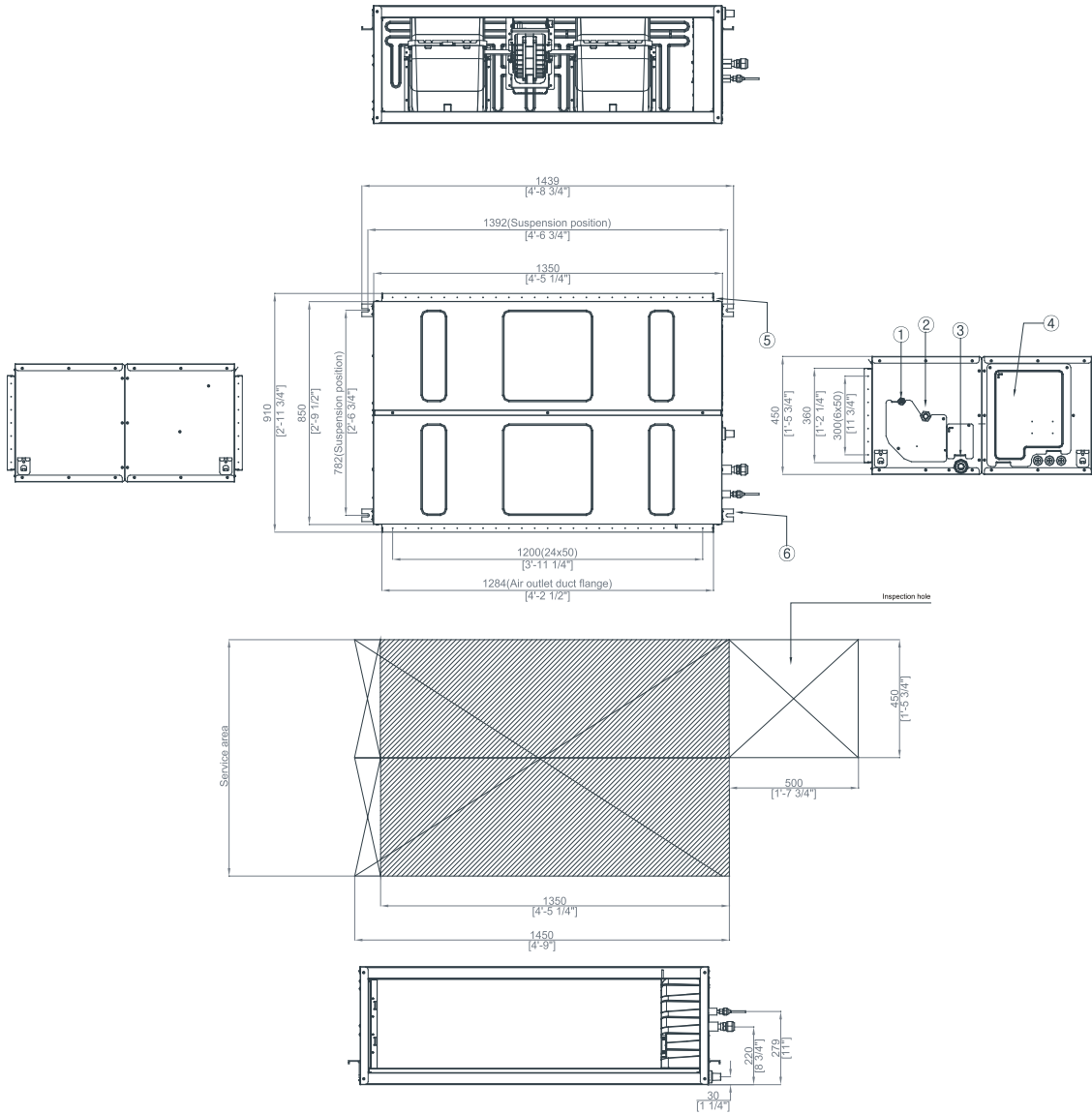
NO	Name	Description
1	Refrigerant Liquid Pipe	Ø9.52 [3/8"] Flare Connection
2	Refrigerant Gas Pipe	Ø15.88 [5/8"] Flare Connection
3	Condensate Drain	VP25 (OD 32, ID 25)
4	Power & Comm. Wiring Conduits	-
5	Supply Air Flange	-
6	Return Air Flange	-
7	Hook	-
8	Hook	3/8 or M10

# Dimensional drawings

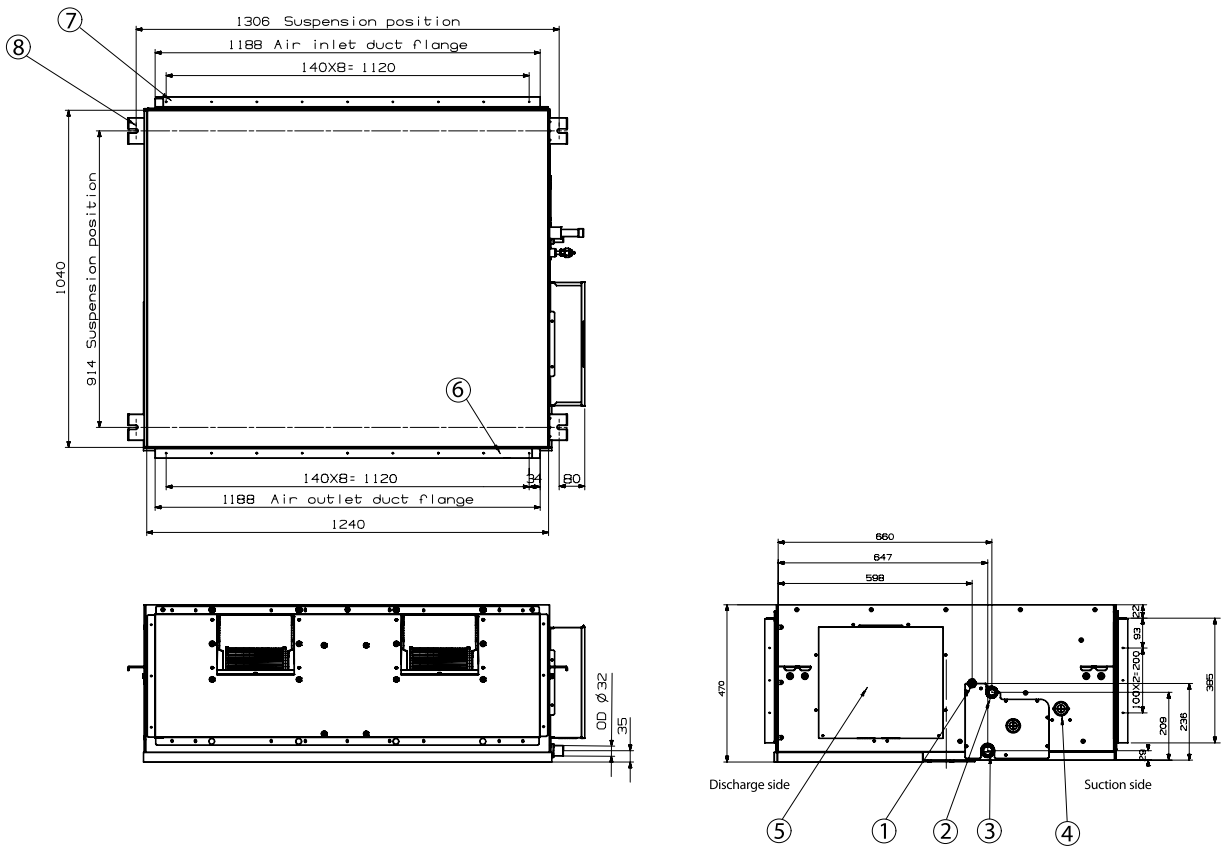
## HSP Duct

AM180J/224JNHFKH/EU

Units: mm [inches]



NO	Name
1	Liquid pipe connection
2	Gas pipe connection
3	Drain pipe connection
4	Power supply connetion
5	Air discharge flange
6	Hook



NO	Name	Description
1	Liquid pipe connection	ø9.52 (3/8)
2	Gas pipe connection	AM220***: ø19.05 (3/4), AM280***: ø22.22 (7/8)
3	Drain pipe connection	VP25 (OD 32, ID 25)
4	Power supply connetion	VP25 (OD 32, ID 25)
5	Air discharge flange	
6	Hook	
7	Suction flange	
8	Hook	3/8 or M10

# Specifications

## Console

- Slim design: only 199 mm in depth.
- Turbo fan with single-phase inverter motor.
- Two separate air outlets to avoid stratification.
- Long-life washable permanent filter.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).
- Auto Restart function.



Model				AM022KNJDEH/EU	AM028FNJDEH/EU	AM036FNJDEH/EU	AM045KNJDEH/EU	AM056FNJDEH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
Performance	Capacity (Nominal)	Cooling	kW	2.8	2.8	3.6	4.5	5.6
		Heating	kW	3.2	3.2	4	5	6.3
Power	Power Input (Nominal)	Cooling	W	30	30	35	36	62
		Heating	W	30	30	35	36	62
	Current Input (Nominal)	Cooling	A	0.25	0.25	0.29	0.30	0.49
		Heating	A	0.25	0.25	0.29	0.30	0.49
Fan	Motor	Type	-	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
		Output	W	37	37	37	37	37
		Number of Fans	ea	1	1	1	1	1
	Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min		7.00/6.00/5.00	7.00/6.00/5.00	8.50/7.50/6.50	11.30/9.80/8.20
l/s				116.67/100.00/83.33	116.67/100.00/83.33	141.67/125.00/108.33	188.33/163.33/136.67	216.67/191.67/166.67
Piping Connections	Liquid Pipe	ø, mm		6.35	6.35	6.35	6.35	6.35
		ø, inch		1/4	1/4	1/4	1/4	1/4
	Gas Pipe	ø, mm		12.7	12.7	12.7	12.7	12.7
		ø, inch		1/2	1/2	1/2	1/2	1/2
	Drain Pipe	ø, mm		ID 18 HOSE	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE
Field Wiring	Power Source Wire		mm <sup>2</sup>	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5
	Transmission Cable		mm <sup>2</sup>	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)				
	Control Method		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Pressure <sup>1</sup>	(H/M/L)		38/36/34	38/36/34	39/37/34	42/39/36	43/40/37
	Power	Cooling		58	58	59	63	64
Dimensions	Net Weight		kg	16.0	16.0	16.0	16.0	16.0
	Net Dimensions (W x H x D)		mm	720 x 620 x 199	720 x 620 x 199	720 x 620 x 199	720 x 620 x 199	720 x 620 x 199
Air Filter			-	-	Long-life Filter	Long-life Filter	-	Long-life Filter

## Accessories



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Wi-Fi Kit

MIM-H04EN



External Room Sensor

MRW-TA

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

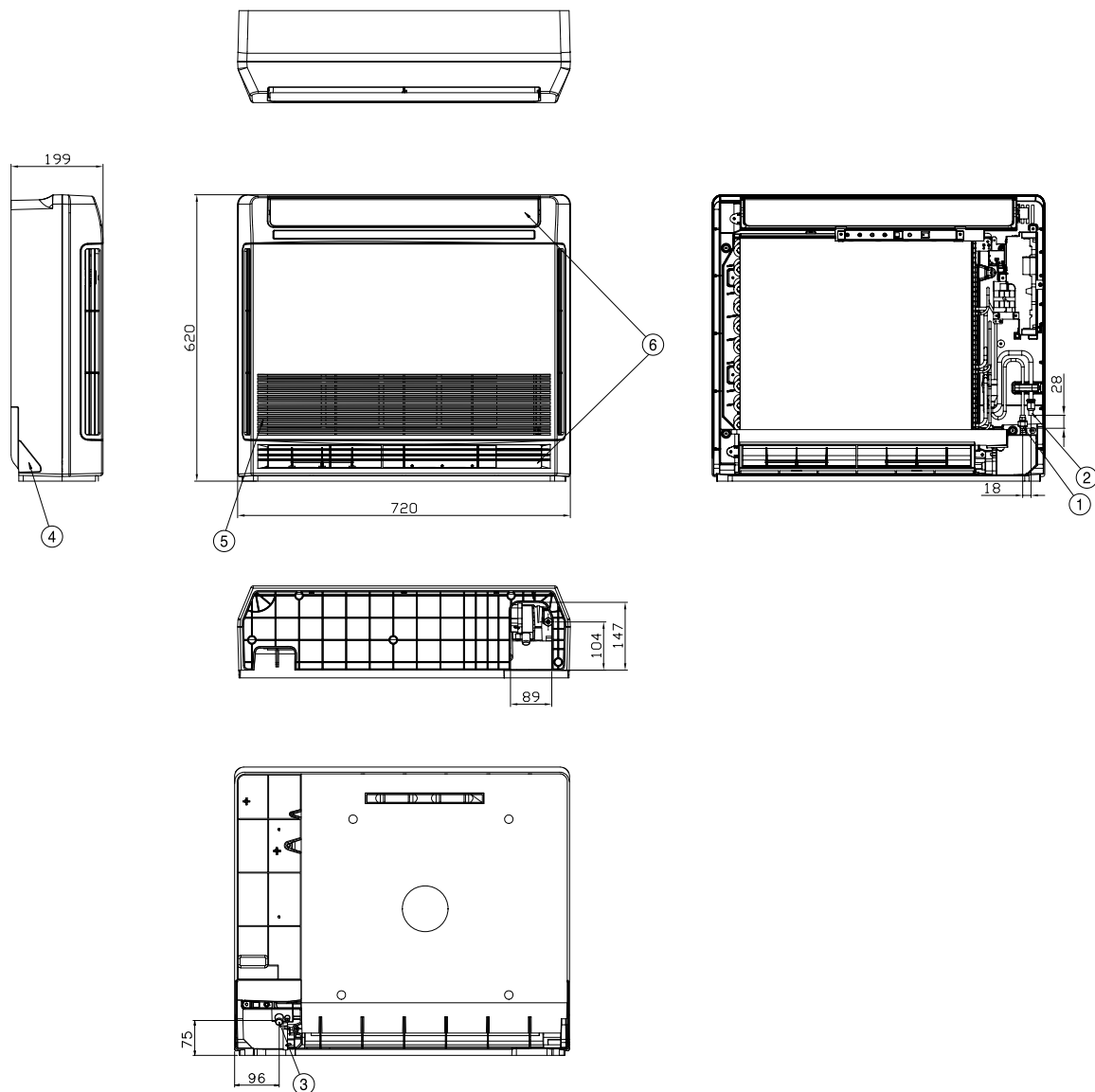


# Dimensional drawings

## Console

AM022KNJDEH/EU, AM028/036FNJDEH/EU

Units: mm [inches]



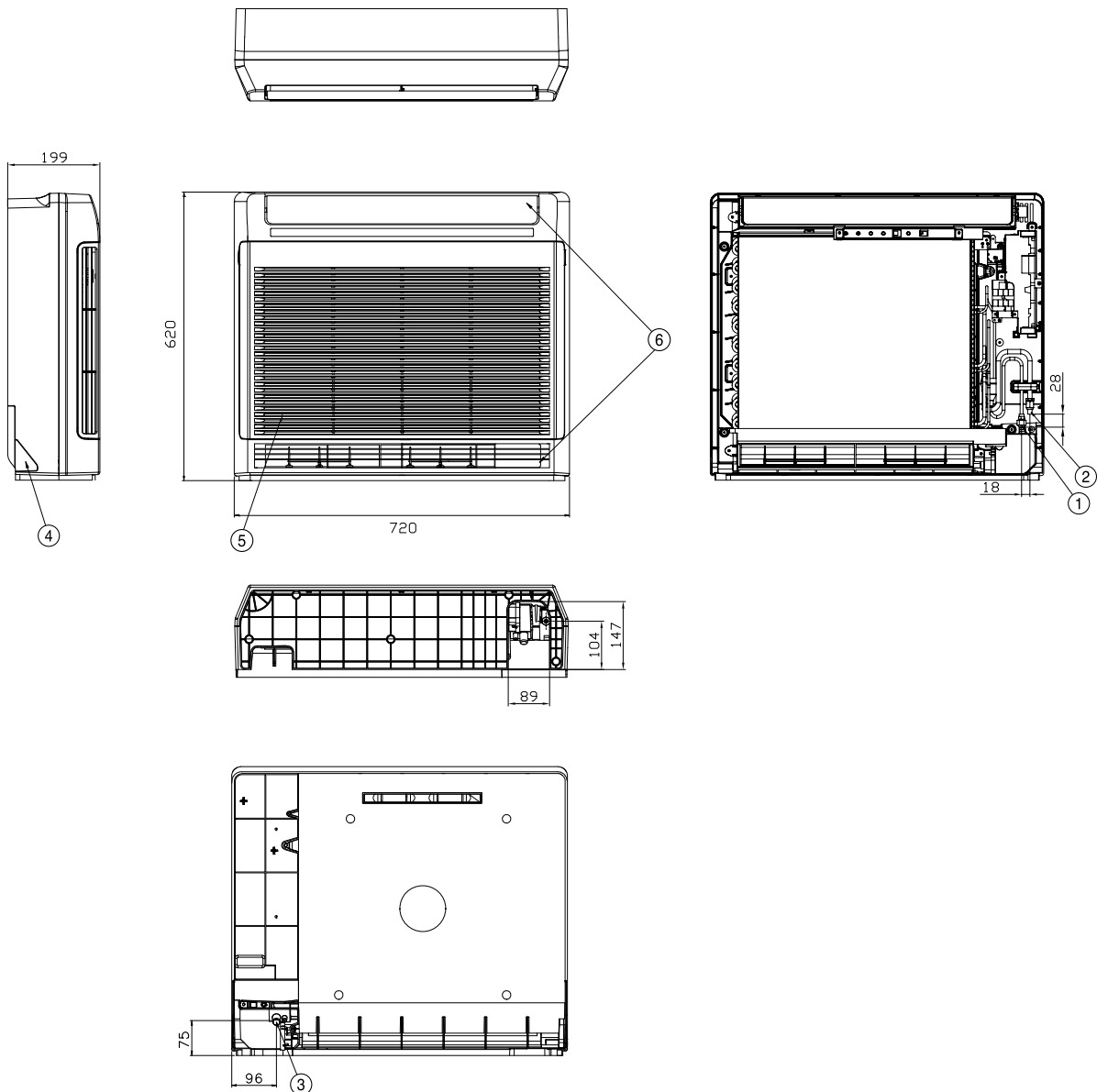
NO	Name	Description
1	Liquid pipe connection	ø6.35 Flare
2	Gas pipe connection	ø12.70 Flare
3	Drain pipe connection	ID 18 Hose
4	Power supply/communication wiring conduits	
5	Air inlet grille	
6	Air outlet louvre	

# Dimensional drawings

## Console

AM045KNJDEH/EU, AM056FNJDEH/EU

Units: mm [inches]



NO	Name	Description
1	Liquid pipe connection	ø6.35 Flare
2	Gas pipe connection	ø12.70 Flare
3	Drain pipe connection	ID 18 Hose
4	Power supply/communication wiring conduits	
5	Air inlet grille	
6	Air outlet louvre	



# Specifications

## Floor/Ceiling

- Optional vertical or horizontal installation.
- Air supply by means of one adjustable blade.
- Reduced noise thanks to the remotely controlled EEV.
- Long-life washable HD 40 permanent filter is included.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).



Model				AM056DNC DKH/EU	AM071DNC DKH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz
Performance	Capacity (Nominal)	Cooling	kW	5,6	7,1
		Heating	kW	6,3	8
Power	Power Input (Nominal)	Cooling	W	50	51
		Heating	W	50	51
	Current Input (Nominal)	Cooling	A	0,43	0,47
		Heating	A	0,43	0,47
Fan	Motor	Type	-	BLDC	BLDC
		Output	W	40	153
		Number of Fans	ea	2	3
		Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min	12.6/ 11.3/ 10
			l/s	210/188.33/166.66	306.66/273.33/238.33
Piping Connections	Liquid Pipe		ø, mm	6.35	9.52
			ø, inch	1/4	3/8
	Gas Pipe		ø, mm	12.70	15.88
			ø, inch	1/2	5/8
	Drain Pipe		ø, mm	ID 18 HOSE	ID 18 HOSE
	Field Wiring	Power Source Wire	Below 20 m/ over 20 m	mm <sup>2</sup>	1.5/2.5
Transmission Cable			mm <sup>2</sup>	0.75-1.50	0.75-1.50
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)	
	Control Method		-	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	41/39/36	37/35/33
Dimensions	Net Weight		kg	21.0	33
	Net Dimensions (W × H × D)		mm	1000 x 650 x 200	1350x 675 x 235
Air Filter			-	Long-life Filter	Long-life Filter

## Accessories



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Wi-Fi Kit

MIM-H04EN



External Room Sensor

MRW-TA

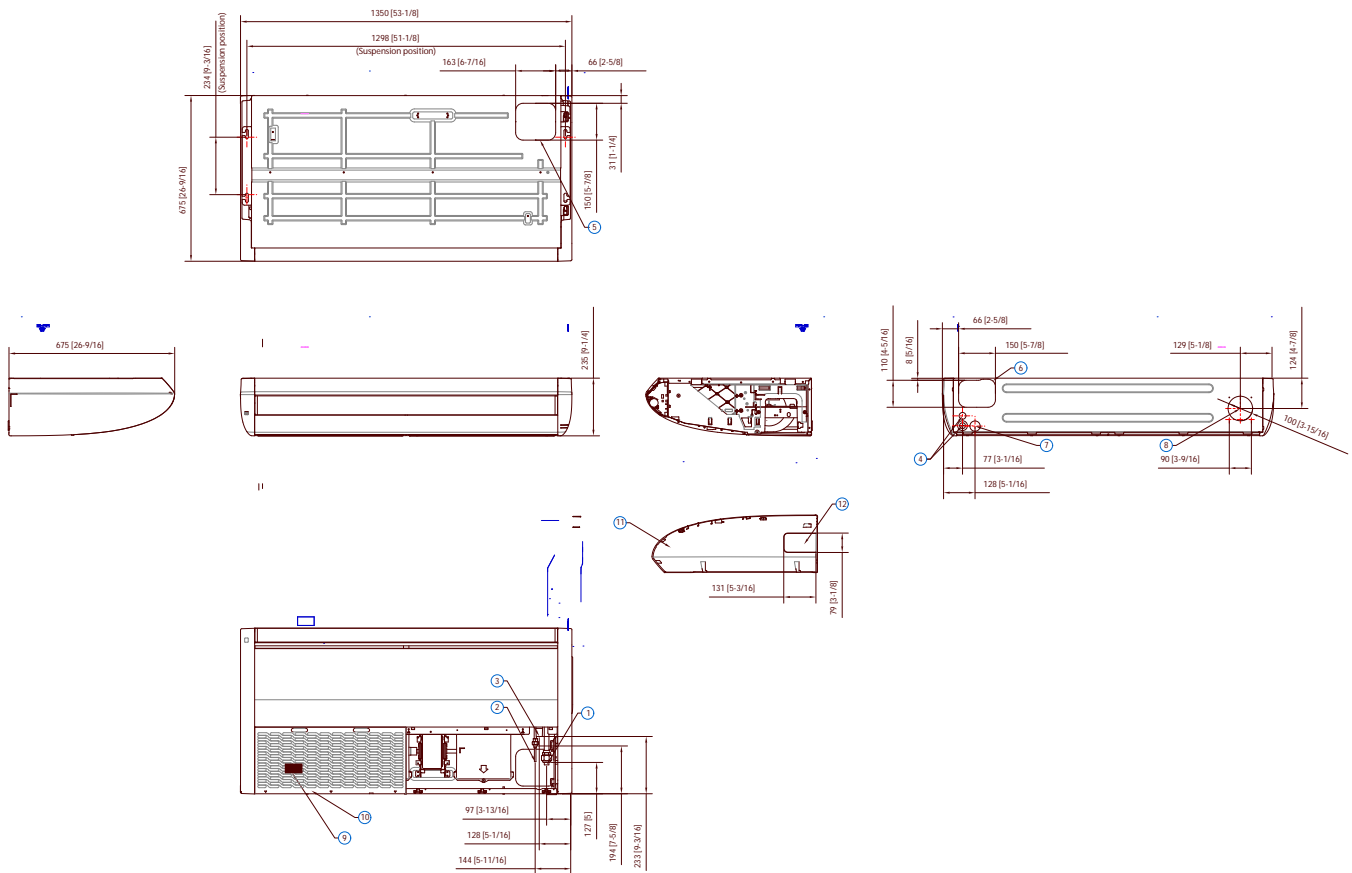
<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional drawings

## Floor/Ceiling

AM056DNCDKH/EU

Units: mm [inches]



Note  
 - As for drain pipe, please use VP25 (PVC, O.D 1-1/4/32mm).  
 - As for suspension bolt, please use M10 or W35.  
 (Procured at local site)

NO	Name	Description
1	Refrigerant gas pipe	
2	Refrigerant liquid pipe	
3	Condensate drain	VP-25 (OD32, ID25)
4	Conduit hole	ø28(ø1-1/8)
5	Knockout hole for upper piping arrangement	
6	Knockout hole for rear piping arrangement	
7	Knockout hole for drain pipe arrangement	
8	Fresh air intake	
9	Air filter	
10	Air suction grille	
11	Cover side	
12	Knockout hole for side piping arrangement	



# Specifications

## Big Ceiling

- Horizontal installation only.
- Air supply by means of one adjustable blade.
- Sirocco Fan direct driven by a single motor.
- Long-life washable HD 40 permanent filter is included.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).



Model				AM112JNCDKH/EU	AM140JNCDKH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
Performance	Capacity (Nominal)	Cooling	kW	11.2	14.0
		Heating	kW	12.5	16.0
Power	Power Input (Nominal)	Cooling	W	92.0	160.0
		Heating	W	80.0	160.0
	Current Input (Nominal)	Cooling	A	0.94	1.45
		Heating	A	0.83	1.45
Fan	Motor	Type	-	Sirocco Fan	Sirocco Fan
		Output	W	260 x 1	260 x 1
	Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min	29.30/23.90/18.50	36.40/30.80/26.00
			L/s	488.33/398.33/308.33	606.67/513.33/433.33
Piping Connections	Liquid Pipe	ø, mm	9.52	9.52	
		ø, inch	3/8	3/8	
	Gas Pipe	ø, mm	15.88	15.88	
		ø, inch	5/8	5/8	
Field Wiring	Power Source Wire	Below 20 m/over 20 m	mm <sup>2</sup>	1.5/2.5	1.5/2.5
			mm <sup>2</sup>	0.75-1.50	0.75-1.50
	Transmission Cable	mm <sup>2</sup>	0.75-1.50	0.75-1.50	
Refrigerant	Type	-	R410A (Fluorinated greenhouse gas, GWP=2,088)		
	Control Method	-	EEV INCLUDED	EEV INCLUDED	
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	45/41/37	46/43/38
	Sound Power	Cooling	dB(A)	61	63
Dimensions	Net Weight		kg	33.5	42.5
	Net Dimensions (W × H × D)		mm	1,350 x 235 x 675	1,350 x 235 x 675

## Accessories



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Wi-Fi Kit

MIM-H04EN



External Room Sensor

MRW-TA

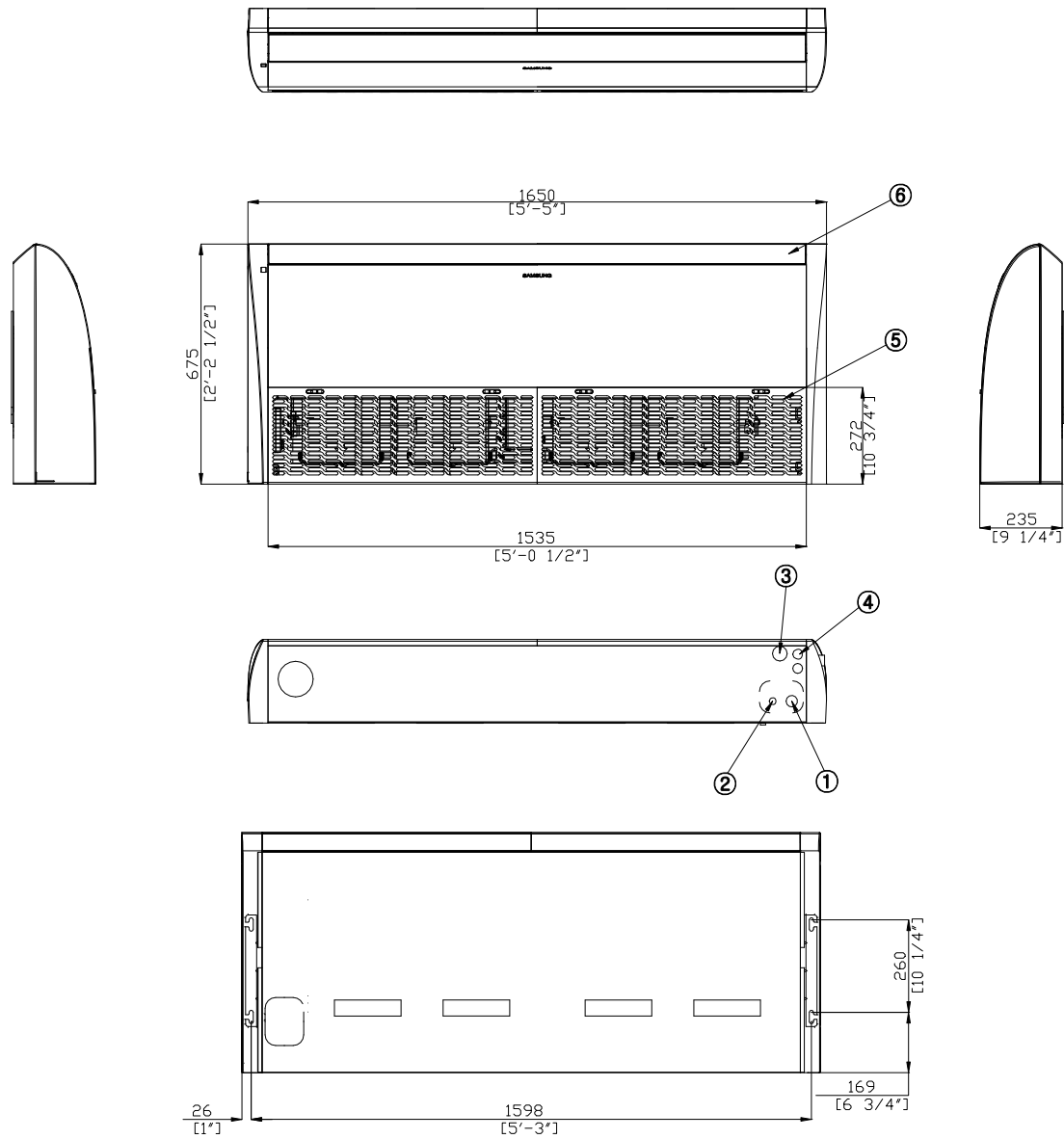
<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional drawings

## Big Ceiling

AM\*\*\*JNCDKH/EU

Units: mm [inches]



NO	Name
1	Refrigerant gas pipe
2	Refrigerant liquid pipe
3	Condensate drain
4	Power supply/communication wiring conduits
5	Air inlet grille
6	Air outlet grille

# Specifications

## Concealed Floor-Standing

- Silent operation.
- Sirocco fan driven by inverter motor.
- Can be controlled by Smartphone via Wi-Fi Kit.
- Long-life washable permanent filter.
- Auto Restart function.



Model				AM036FNFDEH/EU	AM056FNFDEH/EU	AM071FNFDEH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
Performance	Capacity (Nominal)	Cooling	kW	3.6	5.6	7.1
		Heating	kW	4.0	6.3	8.0
Power	Power Input (Nominal)	Cooling	W	50	110	110
		Heating	W	50	110	110
	Current Input (Nominal)	Cooling	A	0.24	0.53	0.53
		Heating	A	0.24	0.53	0.53
Fan	Motor	Type	-	Sirocco Fan	Sirocco Fan	Sirocco Fan
	Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min	10.00/8.50/6.00	15.50/14.00/11.00	15.50/14.00/11.00
L/s			166.67/141.67/100.00	258.33/233.33/183.33	258.33/233.33/183.33	
ø, mm			6.35	9.52	9.52	
Piping Connections	Liquid Pipe		ø, inch	1/4	3/8	3/8
			Gas Pipe	ø, mm	12.70	15.88
	Drain Pipe		ø, inch	1/2	5/8	5/8
			ø, mm	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE
Field Wiring	Power Source Wire	Below 20 m/ over 20 m	mm <sup>2</sup>	1.5/2.5	1.5/2.5	1.5/2.5
			Transmission Cable	mm <sup>2</sup>	0.75-1.50	0.75-1.50
Refrigerant	Type		-	R410A (Fluorinated greenhouse gas, GWP=2,088)		
	Control Method		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	37/32/27	40/36/32	40/36/32
Dimensions	Net Weight		kg	23.0	28.5	28.5
	Net Dimensions (W × H × D)		mm	945 x 600 x 220	1,225 x 600 x 220	1,225 x 600 x 220
Air Filter			-	Long-life Filter	Long-life Filter	Long-life Filter

## Accessories



Touch Controller

Wired Remote Controller

Wi-Fi Kit

External Room Sensor

MWR-SH11N

MWR-WG00\*N

MIM-H04EN

MRW-TA

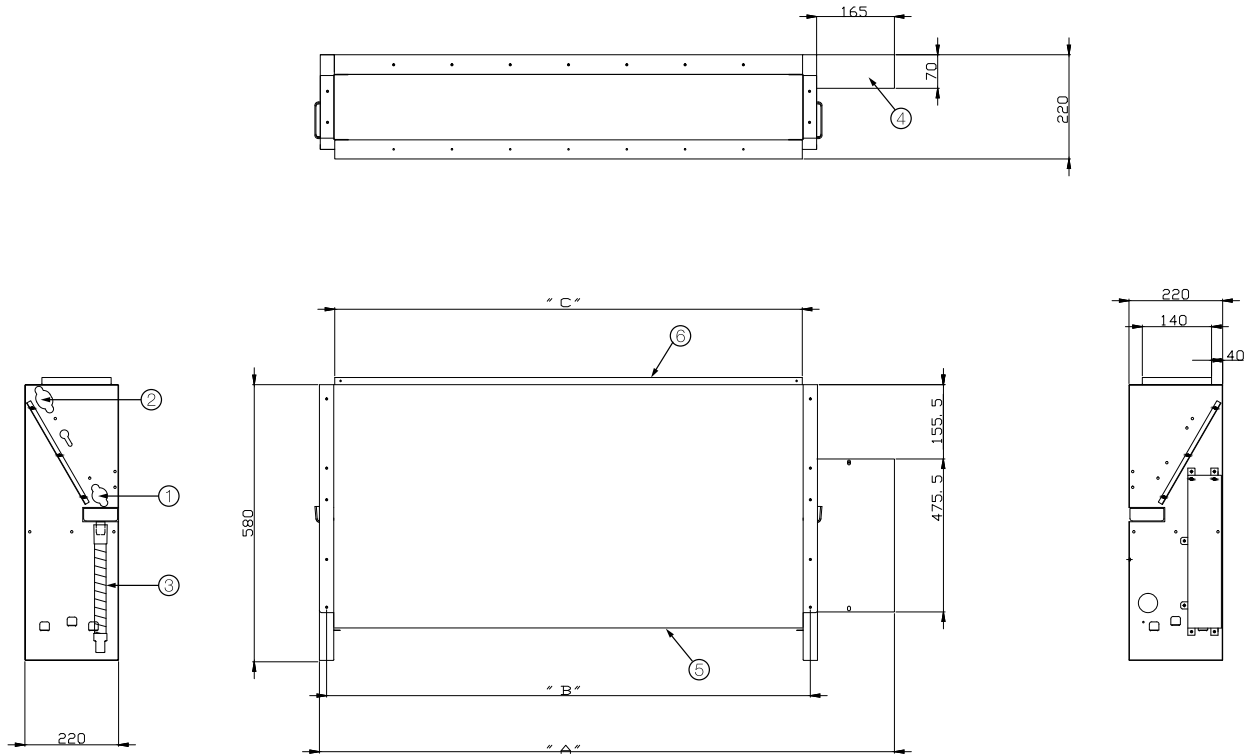
<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional drawings

## Concealed Floor-Standing

AM036/056/071FNFDEH/\*\*

Units: mm [inches]



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

NO	Name	Description		
		3.6 kW	5.6 kW	7.1 kW
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		ID 18 Hose	
4	Power supply/communication wiring conduits			
5	Air inlet grille			
6	Air outlet louvre			

# Specifications

## Concealed Floor-Standing High Static Pressure

- Silent operation.
- Sirocco fan driven by inverter motor.
- Can be controlled by Smartphone via Wi-Fi Kit.
- Long-life washable permanent filter.
- Auto Restart function.



Model				AM036MNFDEH/EU	AM056MNFDEH/EU	AM071MNFDEH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
Performance	Capacity (Nominal)	Cooling	kW	3.6	5.6	7.1
		Heating	kW	4.0	6.3	8.0
Power	Power Input (Nominal)	Cooling	kW	0.022	0.042	0.042
		Heating	kW	0.022	0.042	0.042
	Current Input (Nominal)	Cooling	A	0.20	0.37	0.37
		Heating	A	0.20	0.37	0.37
Fan	Motor	Type	-	Sirocco Fan	Sirocco Fan	Sirocco Fan
		Output x n	W	100 x 1	100 x 1	100 x 1
	External Static Pressure	Min/Std/Max	mmAq	0.00/3.00/6.00	0.00/3.00/6.00	0.00/3.00/6.00
		Min/Std/Max	Pa	0.00/29.40/58.90	0.00/29.40/58.90	0.00/29.40/58.90
Airflow Rate	(H/M/L)	m <sup>3</sup> /h	600/510/360	930/840/660	930/840/660	
Piping Connections	Liquid Pipe	ø, mm	6.35	6.35	9.52	
		ø, inch	1/4	1/4	3/8	
	Gas Pipe	ø, mm	12.70	12.70	15.88	
		ø, inch	1/2	1/2	5/8	
Drain Pipe	ø, mm	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE		
Field Wiring	Power Source Wire	mm <sup>2</sup>	1.5-2.5	1.5-2.5	1.5-2.5	
	Transmission Cable	mm <sup>2</sup>	0.75-1.50	0.75-1.50	0.75-1.50	
Refrigerant	Type	-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Control Method	-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	37/32/27	40/36/32	40/36/32
	Sound Power		dB(A)	53.0	59.0	59.0
Dimensions	Net Weight		kg	22.0	27.0	27.0
	Net Dimensions (W x H x D)		mm	945 x 600 x 220	1,225 x 600 x 220	1,225 x 600 x 220
Air Filter			-	Long-life Filter	Long-life Filter	Long-life Filter

## Accessories



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Wi-Fi Kit

MIM-H04EN



External Room Sensor

MRW-TA

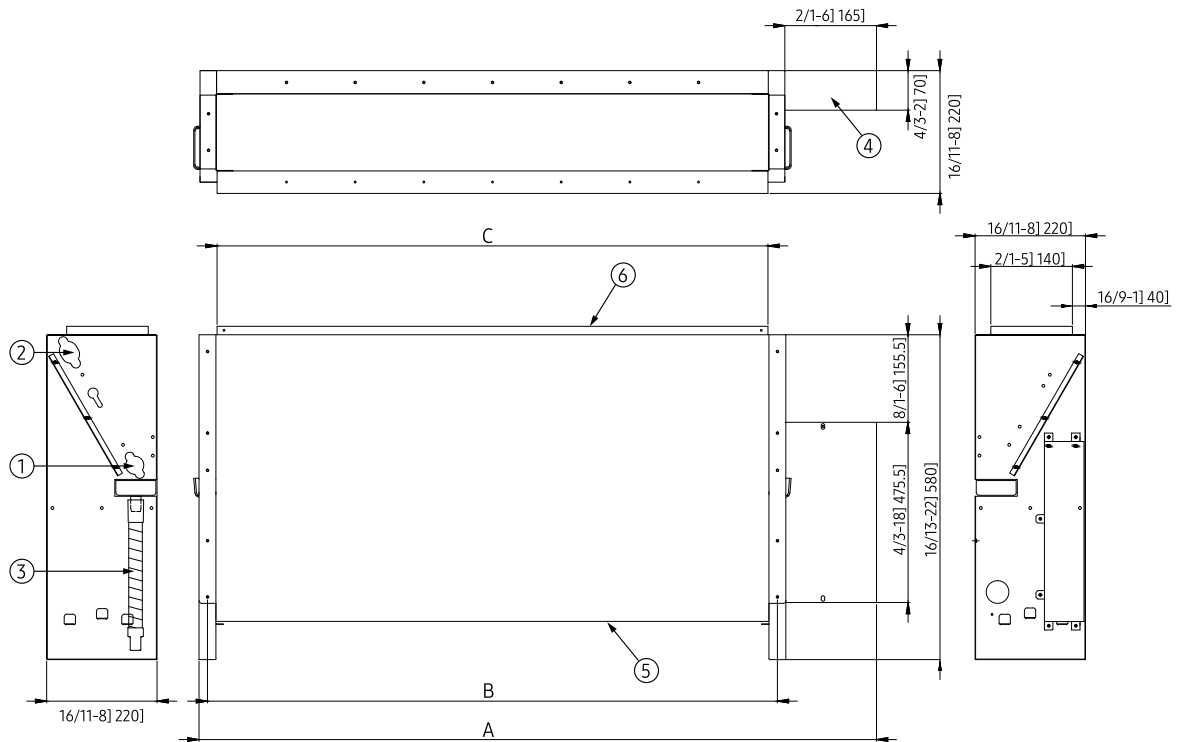
<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional drawings

## Concealed Floor-Standing High Static Pressure

AM036/056/071MNFDEH/\*\*

Units: mm [inches]



Model	A	B	C
AM036MNFDEH/EU	945	730	700
AM056/071MNFDEH/EU	1,225	1,010	980

NO	Name	Description		
		3.6 kW	5.6 kW	7.1 kW
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		ID 18 Hose	
4	Power supply/communication wiring conduits			
5	Air inlet grille			
6	Air outlet louvre			



# Specifications

## Packaged Floor-Standing

- Sirocco fan driven by upgraded BLDC motor.
- Auto external static pressure control
- Embedded single Wi-Fi kit helps to control via SmartPhone



Model				AM140RNPDKH/EU	AM280CNPKH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220–240 V, 50/60 Hz	1Φ, 2, 220–240 V, 50/60 Hz
Performance	Capacity (Nominal)	Cooling	kW	14	28
		Heating	kW	16	31.5
Power	Power Input (Nominal)	Cooling	W	190	400
		Heating	W	190	400
	Current Input (Nominal)	Cooling	A	0.90	2.7
		Heating	A	0.90	2.7
Fan	Motor	Type	-	Sirocco Fan	Sirocco Fan
		Output x n	W	154 x 1	630 x 1
	Airflow Rate	H/M/L (UL)	m <sup>3</sup> /min	35.00/30.50/27.50	68.00/63.00/58.00
Piping Connections	Liquid Pipe	ø, mm	9.52	9.52	
		ø, inch	3/8	3/8	
	Gas Pipe	ø, mm	15.88	22.22	
		ø, inch	5/8	7/8	
	Drain Pipe	ø, mm	ID 18 HOSE	VP25 (OD 32, ID 25)	
	Field Wiring	Power Source Wire	mm <sup>2</sup>	2.5	0.75
Transmission Cable		mm <sup>2</sup>	VCTF 0.75–1.50	VCTF 0.75–1.50	
Refrigerant	Type	-	R410A (Fluorinated greenhouse gas, GWP=2,088)		
	Control Method	-	EEV INCLUDED	EEV INCLUDED	
Sound	Sound Pressure <sup>1</sup>	(H/M/L Silent)	dB(A)	54/47	58/56/54
	Sound Power	Cooling	dB(A)	-	74
Dimension	Net Weight		kg	48.0	108
	Net Dimensions (W x H x D)		mm	610 x 1,850 x 400	1,100 x 1,800 x 485
Connectivity				Single Wi-Fi Kit embedded	

## Accessories



Wi-Fi Kit

External Room Sensor

MIM-H04EN

MRW-TA

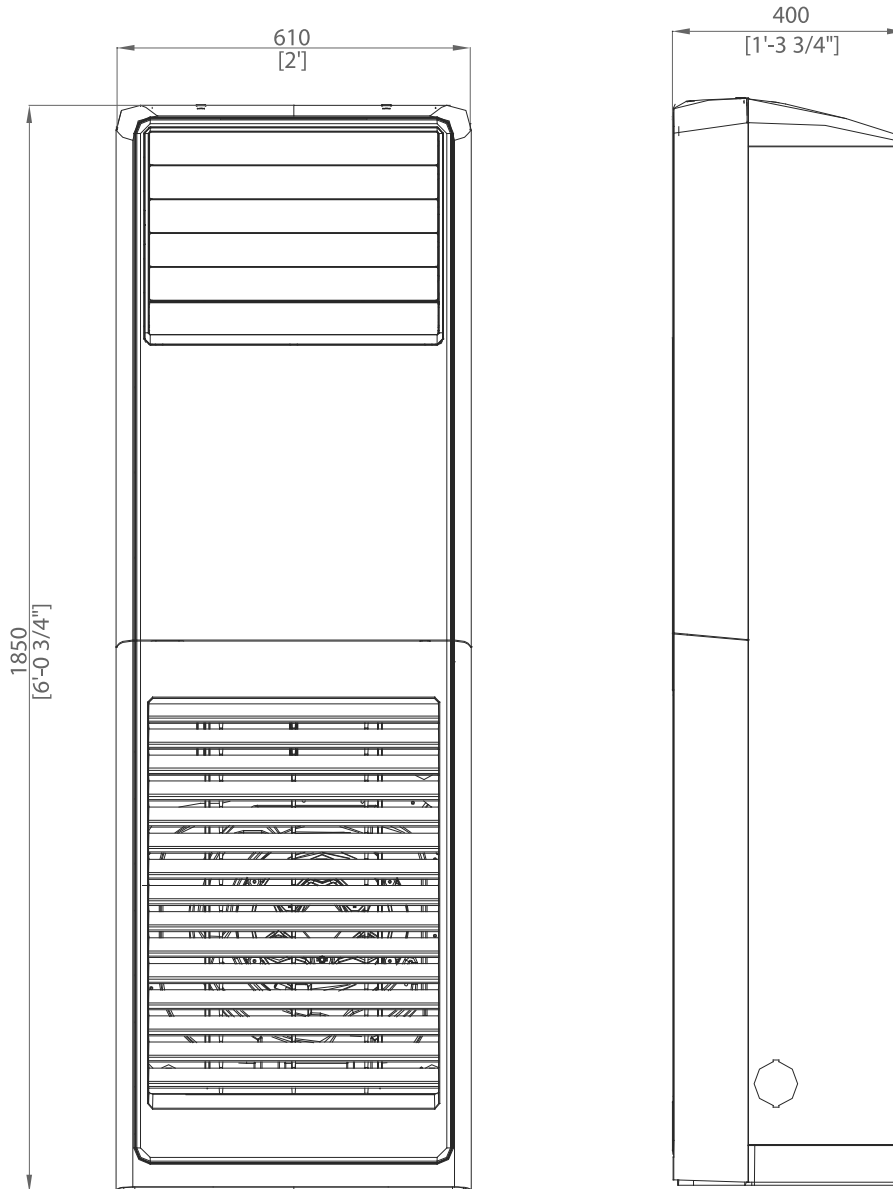
<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional drawings

## Packaged Floor-Standing

AM140RNPDKH/EU

Units: mm [inches]



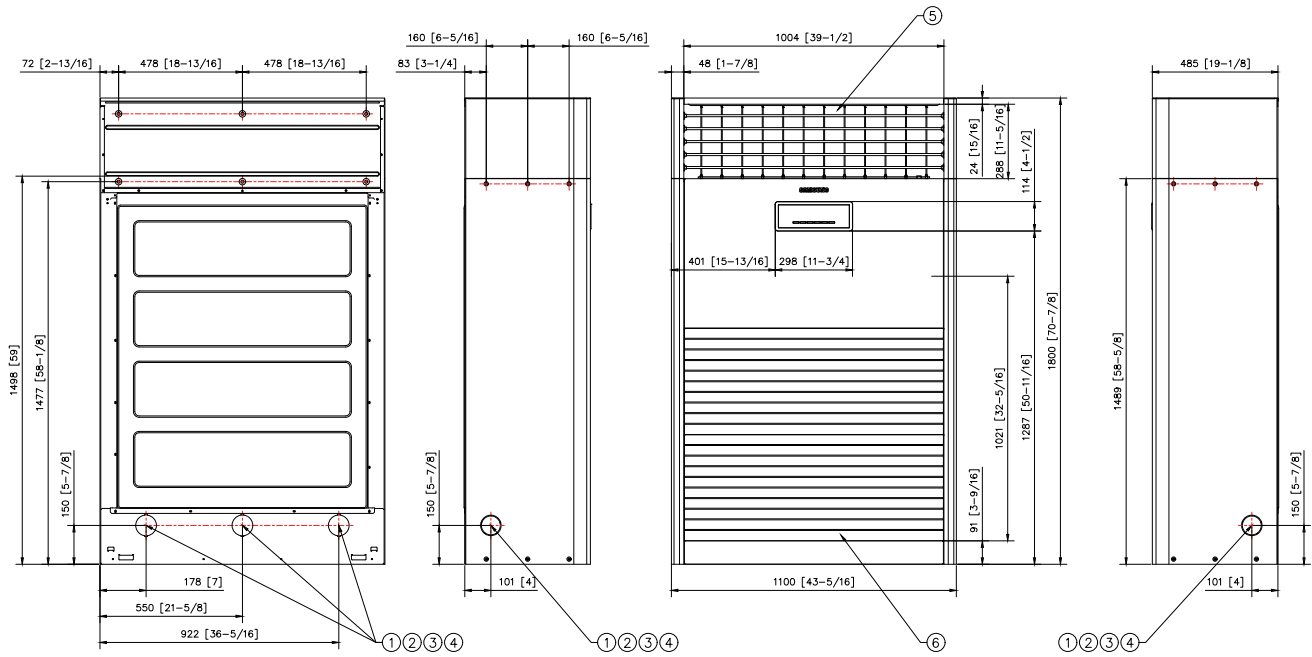
NO	Name	Description
1	Gas piping refrigerant	ø15.88 (5/8)
2	Liquid piping refrigerant	ø9.52 (3/8)
3	Condensation drain piping	-

# Dimensional drawings

## Packaged Floor-Standing

AM280CNPDKH/EU

Units: mm [inches]



NO	Name	Description
1	Gas pipe connection	Ø22.22 [7/8]
2	Liquid pipe connection	Ø9.52 [3/8]
3	Drain hose connection	-
4	Power supply/Communication wiring conduit	-
5	Air outlet louver	-
6	Air inlet grille	-



# Specifications

## WindFree™ Deluxe (EEV included) UNIQUE

- Three-step cooling: Fast Cooling mode, Dehumidification mode and WindFree™ Cooling mode.
- Wi-Fi Control with SmartThings and Bixby voice controls.
- Equipped with Easy Filter Plus.



				AM015TNVDKH/EU	AM022TNVDKH/EU	AM028TNVDKH/EU
<b>Power Supply</b>		<b>Φ, #, V, Hz</b>		1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz
<b>Performance</b>	<b>Capacity (Nominal)</b>	<b>Cooling</b>	<b>kW</b>	1.5	2.2	2.8
		<b>Heating</b>	<b>kW</b>	1.7	2.5	3.2
<b>Power</b>	<b>Capacity (Nominal)</b>	<b>Cooling</b>	<b>W</b>	20	24	30
		<b>Heating</b>	<b>W</b>	20	24	30
	<b>Current Input (Nominal)</b>	<b>Cooling</b>	<b>A</b>	0.13	0.16	0.20
		<b>Heating</b>	<b>A</b>	0.13	0.16	0.20
	<b>MCA</b>	<b>A</b>	0.2	0.2	0.3	
	<b>MFA</b>	<b>A</b>	15	15	15	
<b>Fan</b>	<b>Motor</b>	<b>Type</b>	-	Crossflow Fan	Crossflow Fan	Crossflow Fan
		<b>Output</b>	<b>W</b>	27 x 1	27 x 1	27 x 1
	<b>Airflow Rate</b>	<b>H/M/L (UL)</b>	<b>m<sup>3</sup>/min</b>	4.9/4.5/4.1	5.7/5.0/4.5	8.5/7.7/6.9
<b>Piping</b>	<b>Liquid Pipe</b>	<b>Ø, mm</b>	6.35	6.35	6.35	
		<b>Ø, inch</b>	1/4	1/4	1/4	
<b>Connections</b>	<b>Gas Pipe</b>	<b>Ø, mm</b>	12.70	12.70	12.70	
		<b>Ø, inch</b>	1/2	1/2	1/2	
	<b>Drain Pipe</b>	<b>Ø, mm</b>	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE	
		<b>Power Source Wire</b>	<b>mm<sup>2</sup></b>	1.5/2.5	1.5/2.5	1.5/2.5
<b>Field Wiring</b>	<b>Transmission Cable</b>	<b>mm<sup>2</sup></b>	0.75-1.50	0.75-1.50	0.75-1.50	
	<b>Remark</b>	-	F1, F2	F1, F2	F1, F2	
<b>Refrigerant</b>	<b>Type</b>	-	R410A (Fluorinated greenhouse gas, GWP = 2,088)			
	<b>Control Method</b>	-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	
<b>Sound</b>	<b>Sound Pressure<sup>1</sup></b>	<b>(H/M/L)</b>	<b>dB(A)</b>	31/30/27/26 (WindFree™)	34/32/30/27 (WindFree™)	34/33/32/26 (WindFree™)
	<b>Sound Power</b>	<b>Cooling</b>	<b>dB(A)</b>	50	51	52
<b>Dimensions</b>	<b>Net Weight</b>		<b>kg</b>	9.0	9.0	9.5
	<b>Net Dimensions (W × H × D)</b>		<b>mm</b>	820 x 299 x 215	820 x 299 x 215	820 x 299 x 215
<b>Air Filter</b>				Easy Filter Plus	Long-life Filter	Long-life Filter

## Accessories



Wireless Remote Controller

AR-EH03E



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Wi-Fi Kit

MIM-H04EN

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



AM036TNVDKH/EU	AM045TNVDKH/EU	AM056TNVDKH/EU	AM071TNVDKH/EU	AM082TNVDKH/EU
1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz
3.6	4.5	5.6	6.8	8.2
4.0	5.0	6.3	7.0	8.5
37	40	52	60	65
37	40	52	60	65
0.25	0.27	0.35	0.40	0.43
0.25	0.27	0.35	0.40	0.43
0.3	0.3	0.4	0.5	0.5
15	15	15	15	15
Crossflow Fan	Crossflow Fan	Crossflow Fan	Crossflow Fan	Crossflow Fan
27 x 1	27 x 1	27 x 1	27 x 1	27 x 1
10.3/9.1/8.3	12.5/11.4/10.5	15.7/13.8/12.0	16.8/15.0/13.2	17.5/15.6/13.8
171.7/151.7/138.3	208.3/190.0/175.0	261.7/230.0/200.0	280.0/250.0/220.0	291.7/260.0/230.0
6.35	6.35	6.35	9.52	9.52
1/4	1/4	1/4	3/8	3/8
12.70	12.70	12.70	15.88	15.88
1/2	1/2	1/2	5/8	5/8
ID 18 HOSE	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE
1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5
0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50
F1, F2	F1, F2	F1, F2	F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP = 2,088)				
EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
40/36/34/26 (WindFree™)	37/34/33/29 (WindFree™)	40/37/34/29 (WindFree™)	43/40/37/29 (WindFree™)	46/45/43/30 (WindFree™)
56	55	58	62	64
9.5	12.0	12.0	12.0	13.0
820 x 299 x 215	1055 x 299 x 215	1055 x 299 x 215	1055 x 299 x 215	1055 x 299 x 215
Long-life Filter	Long-life Filter	Long-life Filter	Long-life Filter	Long-life Filter

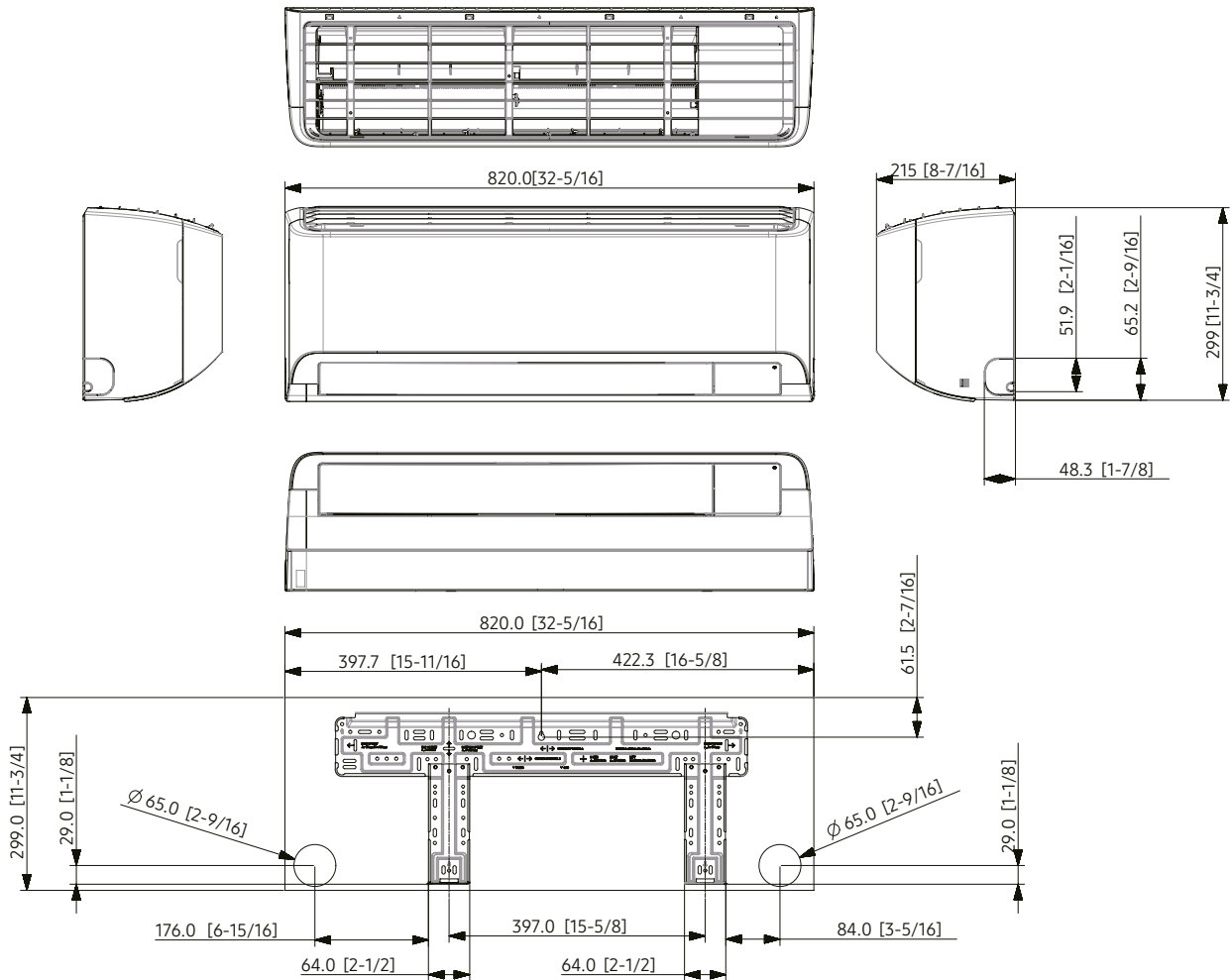


# Dimensional drawings

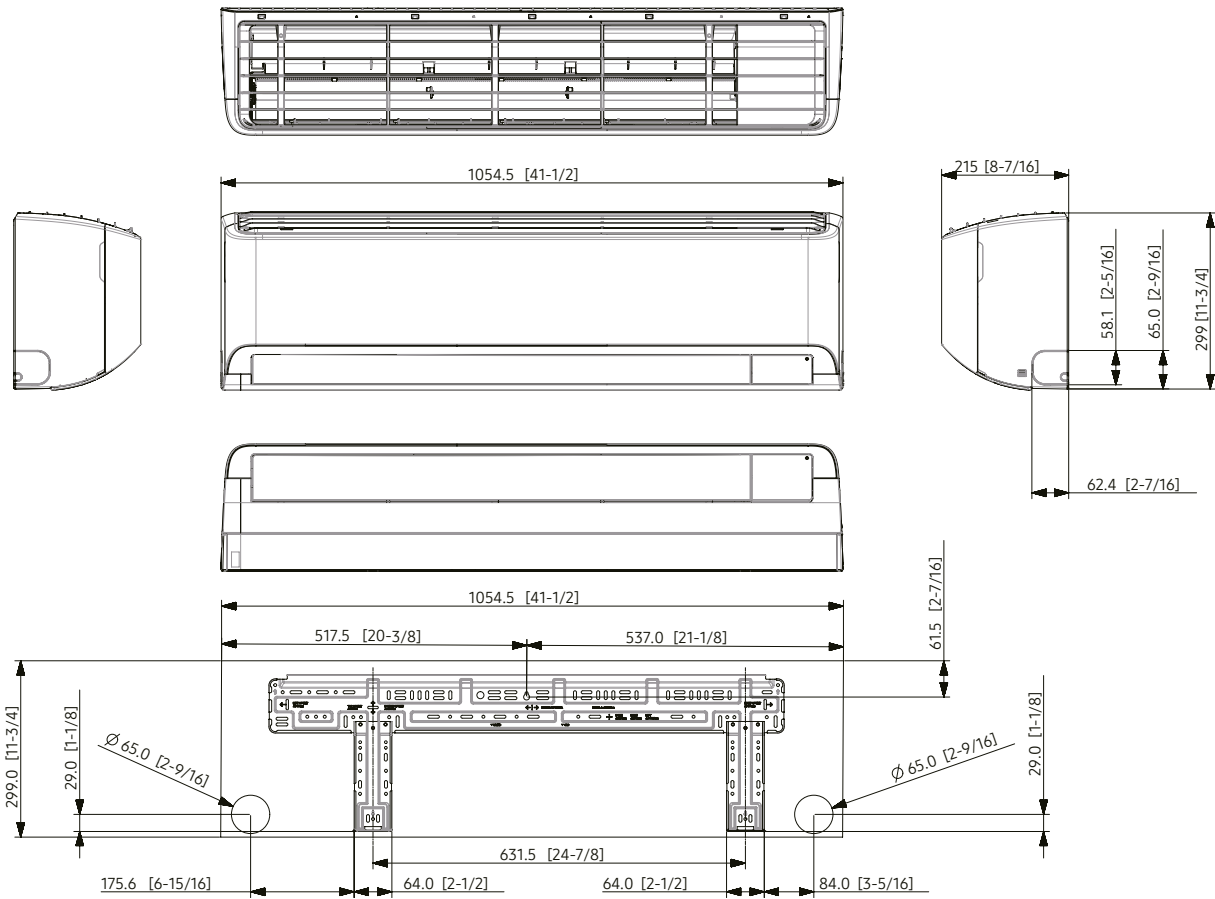
## WindFree™ Deluxe (EEV included)

AM015TNVDKH/EU, AM022TNVDKH/EU, AM028TNVDKH/EU, AM036TNVDKH/EU

Units: mm [inches]



NO	Name	Description
1	Refrigerant gas pipe	ø12.70 (1/2) Flare
2	Refrigerant liquid pipe	ø6.35 (1/4) Flare
3	Drain pipe connection	ID 18 Hose



NO	Name	Description
1	Refrigerant gas pipe	$\varnothing 12.70$ (1/2) Flare
2	Refrigerant liquid pipe	$\varnothing 6.35$ (1/4) Flare
3	Drain pipe connection	ID 18 Hose

# Specifications

## WindFree™ Deluxe (EEV excluded) UNIQUE

- Three-step cooling: Fast Cooling mode, Dehumidification mode and WindFree™ Cooling mode.
- Wi-Fi Control with SmartThings and Bixby voice controls.
- Equipped with Easy Filter Plus.



				AM015TNADKH/EU	AM022TNADKH/EU	AM028TNADKH/EU
<b>Power Supply</b>		<b>Φ, #, V, Hz</b>		1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz	1Φ, 2, 220~240 V, 50/60 Hz
<b>Performance</b>	<b>Capacity (Nominal)</b>	<b>Cooling</b>	<b>kW</b>	1.5	2.2	2.8
		<b>Heating</b>	<b>kW</b>	1.7	2.5	3.2
<b>Power</b>	<b>Capacity (Nominal)</b>	<b>Cooling</b>	<b>W</b>	20	24	30
		<b>Heating</b>	<b>W</b>	20	24	30
	<b>Current Input (Nominal)</b>	<b>Cooling</b>	<b>A</b>	0.13	0.16	0.20
		<b>Heating</b>	<b>A</b>	0.13	0.16	0.20
	<b>MCA</b>	<b>A</b>	0.2	0.2	0.3	
	<b>MFA</b>	<b>A</b>	15	15	15	
<b>Fan</b>	<b>Motor</b>	<b>Type</b>	-	Crossflow Fan	Crossflow Fan	Crossflow Fan
		<b>Output</b>	<b>W</b>	27 x 1	27 x 1	27 x 1
	<b>Airflow Rate</b>	<b>H/M/L (UL)</b>	<b>m³/min</b>	4.9/4.5/4.1	5.7/5.0/4.5	8.5/7.7/6.9
			<b>l/s</b>	81.7/75.0/68.3	95.0/83.3/75.0	141.7/128.3/115.0
<b>Piping Connections</b>	<b>Liquid Pipe</b>	<b>ø, mm</b>	6.35	6.35	6.35	
		<b>ø, inch</b>	1/4	1/4	1/4	
	<b>Gas Pipe</b>	<b>ø, mm</b>	12.70	12.70	12.70	
		<b>ø, inch</b>	1/2	1/2	1/2	
	<b>Drain Pipe</b>	<b>ø, mm</b>	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE	
<b>Field Wiring</b>	<b>Power Source Wire</b>	<b>mm²</b>	1.5/2.5	1.5/2.5	1.5/2.5	
	<b>Transmission Cable</b>	<b>mm²</b>	0.75-1.50	0.75-1.50	0.75-1.50	
	<b>Remark</b>	-	F1, F2	F1, F2	F1, F2	
<b>Refrigerant</b>	<b>Type</b>	-	R410A (Fluorinated greenhouse gas, GWP = 2,088)			
	<b>Control Method<sup>1</sup></b>	-	EEV NOT INCLUDED	EEV NOT INCLUDED	EEV NOT INCLUDED	
<b>Sound</b>	<b>Sound Pressure<sup>2</sup></b>	<b>(H/M/L)</b>	<b>dB(A)</b>	31/30/27/26 (WindFree™)	34/32/30/27 (WindFree™)	34/33/32/26 (WindFree™)
	<b>Sound Power</b>	<b>Cooling</b>	<b>dB(A)</b>	50	51	52
<b>Dimensions</b>	<b>Net Weight</b>	<b>kg</b>	8.5	8.5	9.0	
	<b>Net Dimensions (W × H × D)</b>	<b>mm</b>	820 x 299 x 215	820 x 299 x 215	820 x 299 x 215	
<b>Air Filter</b>		-	Easy Filter Plus	Long-life Filter	Long-life Filter	

## Accessories



Wireless Remote Controller

Touch Controller

Wired Remote Controller

Wi-Fi Kit

EEV Kit 1 Indoor

EEV Kit 2 Indoor

EEV Kit 3 Indoor

AR-EH03E

MWR-SH11N

MWR-WG00\*N

MIM-H04EN

MEV-\*\*\*SA

MXD-E24/32K\*\*\*A

MXD-E24/32K\*\*\*A

<sup>1</sup> EEV Kit is necessary to control the refrigerant flow in the WindFree™ Deluxe (EEV Excluded), please order EEV Kit separately.

<sup>2</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.



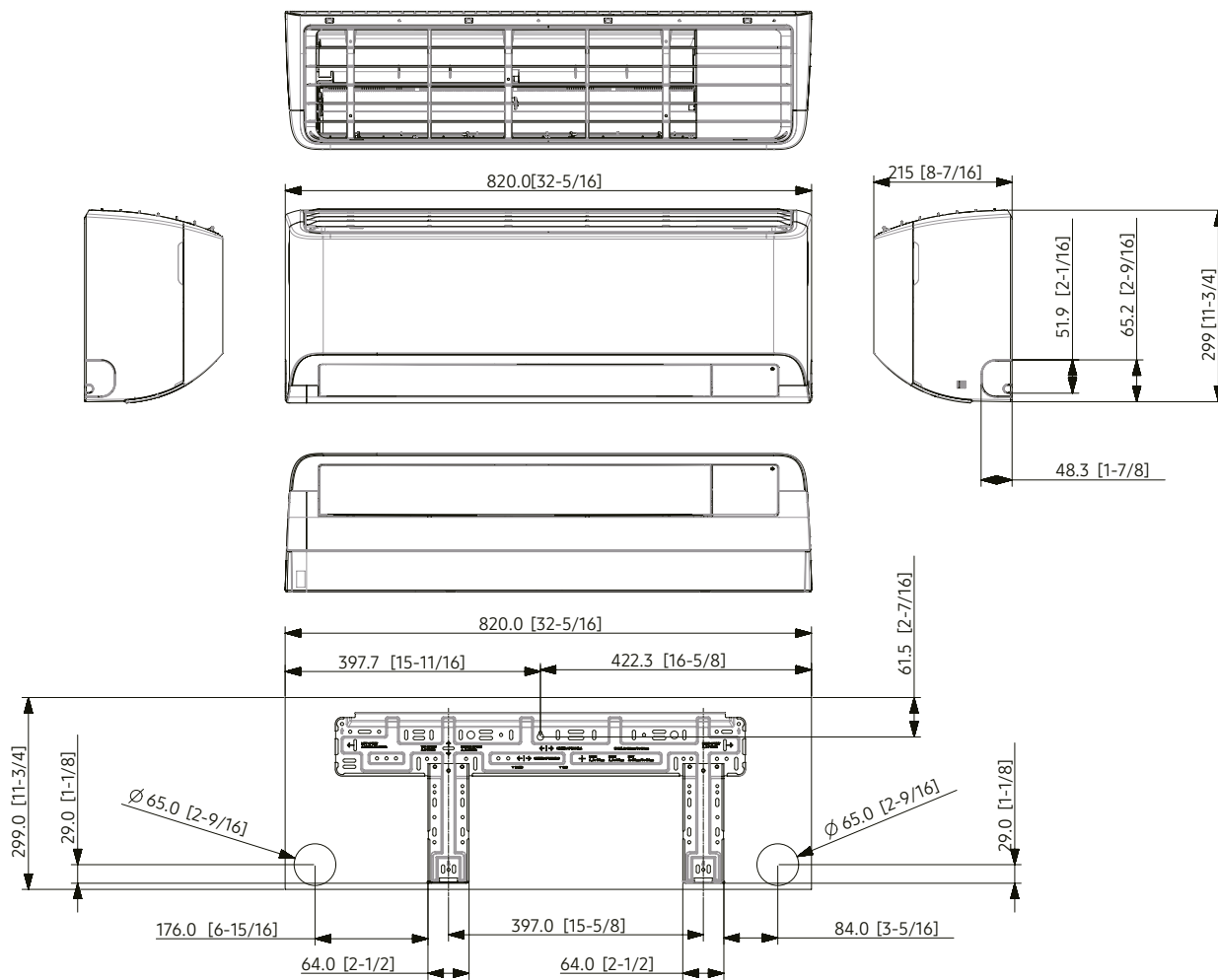
AM036TNADKH/EU	AM045TNADKH/EU	AM056TNADKH/EU	AM071TNADKH/EU	AM082TNADKH/EU
10, 2, 220-240 V, 50/60 Hz	10, 2, 220-240 V, 50/60 Hz	10, 2, 220-240 V, 50/60 Hz	10, 2, 220-240 V, 50/60 Hz	10, 2, 220-240 V, 50/60 Hz
3.6	4.5	5.6	6.8	8.2
4.0	5.0	6.3	7.0	8.5
37	40	52	60	65
37	40	52	60	65
0.25	0.27	0.35	0.40	0.43
0.25	0.27	0.35	0.40	0.43
0.3	0.3	0.4	0.5	0.5
15	15	15	15	15
Crossflow Fan	Crossflow Fan	Crossflow Fan	Crossflow Fan	Crossflow Fan
27 x 1	27 x 1	27 x 1	27 x 1	27 x 1
10.3/9.1/8.3	12.5/11.4/10.5	15.7/13.8/12.0	16.8/15.0/13.2	17.5/15.6/13.8
171.7/151.7/138.3	208.3/190.0/175.0	261.7/230.0/200.0	280.0/250.0/220.0	291.7/260.0/230.0
6.35	6.35	6.35	9.52	9.52
1/4	1/4	1/4	3/8	3/8
12.70	12.70	12.70	15.88	15.88
1/2	1/2	1/2	5/8	5/8
ID 18 HOSE	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE	ID 18 HOSE
1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5	1.5/2.5
0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50
F1, F2	F1, F2	F1, F2	F1, F2	F1, F2
R410A (Fluorinated greenhouse gas, GWP = 2,088)				
EEV NOT INCLUDED	EEV NOT INCLUDED	EEV NOT INCLUDED	EEV NOT INCLUDED	EEV NOT INCLUDED
40/36/34/26 (WindFree™)	37/34/33/29 (WindFree™)	40/37/34/29 (WindFree™)	43/40/37/29 (WindFree™)	46/45/43/30 (WindFree™)
56	55	58	62	64
9.0	11.5	11.5	11.5	12.5
820 x 299 x 215	1055 x 299 x 215	1055 x 299 x 215	1055 x 299 x 215	1055 x 299 x 215
Long-life Filter	Long-life Filter	Long-life Filter	Long-life Filter	Long-life Filter

# Dimensional drawings

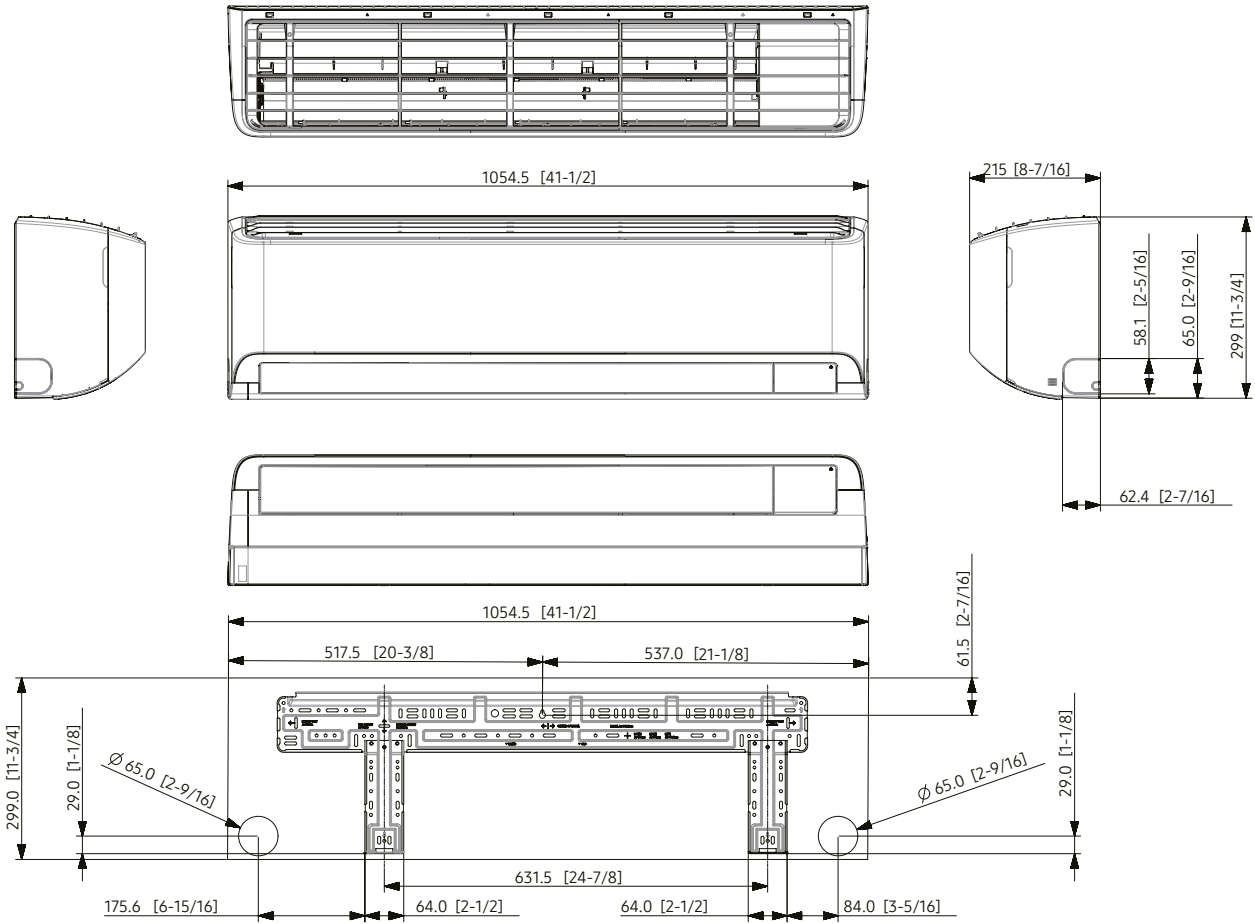
## WindFree™ Deluxe (EEV excluded)

AM015TNADKH/EU, AM022TNADKH/EU, AM028TNADKH/EU, AM036TNADKH/EU

Units: mm [inches]



NO	Name	Description
1	Refrigerant gas pipe	$\varnothing 12.70$ (1/2) Flare
2	Refrigerant liquid pipe	$\varnothing 6.35$ (1/4) Flare
3	Drain pipe connection	ID 18 Hose



NO	Name	Description
1	Refrigerant gas pipe	ø12.70 (1/2) Flare
2	Refrigerant liquid pipe	ø6.35 (1/4) Flare
3	Drain pipe connection	ID 18 Hose



# Specifications

## Max Wall-Mounted

- Cross-flow fan direct driven by a single BLDC motor.
- Return air is filtered by means of an easily removable, washable pre filter.
- Motorised louvre provides an automatic change in airflow by directing the air up and down.
- Can be controlled by Smartphone via Wi-Fi Kit (Optional).
- Manual adjustable guide vane allows users to change the airflow from side to side (left to right).



Model		AM093MNQDEH/EU		
Power Supply		Φ, #, V, Hz		1Φ, 2, 220-240 V, 50 Hz
Performance	Capacity	Cooling	kW	9.3
		Heating	kW	9.8
Power	Power Input	Cooling	W	66
		Heating	W	76
	Current Input	Cooling	A	0.47
		Heating	A	0.54
Current	MCA	A	0.68	
	MFA	A	15	
Fan	Type	-		Crossflow Fan
	Number of Fans	ea		1
	Airflow Rate	H/M/L	m <sup>3</sup> /min	
l/s				383/333/283
Fan Motor	Type	-		BLDC Motor
	Output x n	W		58 x 1
Piping Connections	Liquid Pipe	ø, mm		9.52
		ø, inch		3/8
	Gas Pipe	ø, mm		15.88
		ø, inch		5/8
Drain Pipe	ø, mm		ID 18 HOSE	
Wiring Connections	Communication	Min.	mm <sup>2</sup>	0.75
		Remark	-	F1, F2
Refrigerant	Type	-		R410A (Fluorinated greenhouse gas, GWP=2,088)
	Electronic Expansion Valve	-		EEV INCLUDED
Sound	Sound Pressure <sup>1</sup>	H/M/L	dB(A)	49/46/42
	Sound Power	Cooling	dB(A)	66
Dimensions	Net Weight		kg	18.5
	Net Dimensions (W x H x D)		mm	1,280 x 345 x 253
Air Filter		-		Pre filter

## Accessories



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Wi-Fi Kit

MIM-H04EN



External Room Sensor

MRW-TA

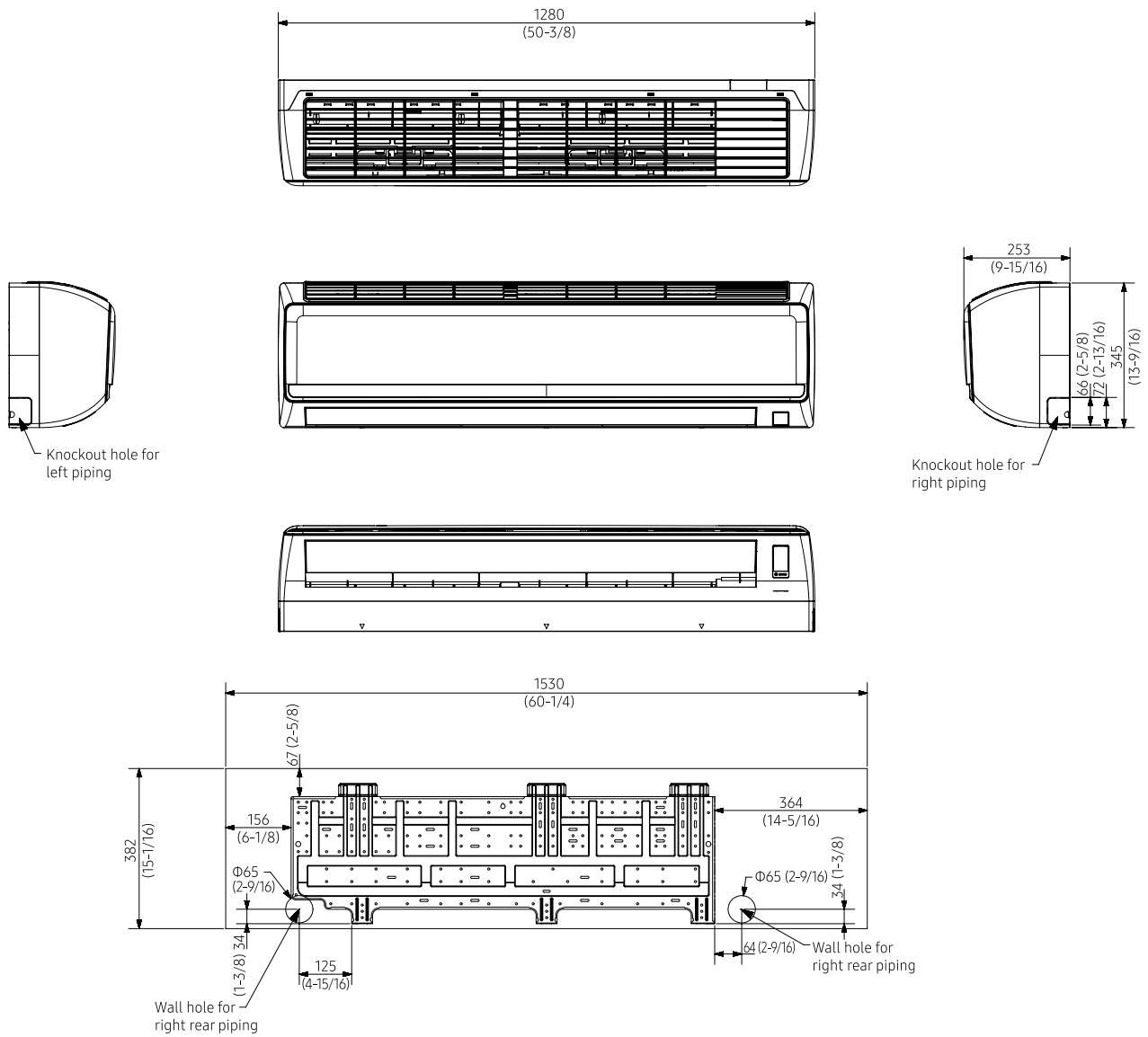
<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional drawings

## Max Wall-Mounted

AM093MNQDEH\*\*

Units: mm [inches]



NO	Name	Description
1	Liquid pipe connection	$\varnothing 9.52$ (3/8)
2	Gas pipe connection	$\varnothing 15.88$ (5/8)
3	Drain pipe connection	ID 18 HOSE
4	Power supply/communication wiring conduits	-

# Specifications

## Hydro Unit

- Production of low temperature hot water and chilled water.
- Hot water production to a maximum temperature of 50 °C/80 °C (HT models).
- Two-way control: leaving water temperature and room temperature control.
- Connection to low temperature radiators and AHU water coils.
- Hot water production for domestic hot water use.
- Connectable to Heat Recovery DVM S systems (excluding 50 kW hydro unit).



Model (HE)			AM160FNBDEH/EU	AM320FNBDEH/EU	AM500FNBDEH/EU	
Power Supply		Φ, #, V, Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	
Performance	Capacity (Nominal)	Cooling	kW	14.0	28.0	44.8
		Heating	kW	16.0	31.5	50.4
Power	Power Input (Nominal)	Cooling	W	10	10	10
		Heating	W	10	10	10
	Current Input (Nominal)	Cooling	A	0.05	0.05	0.05
		Heating	A	0.05	0.05	0.05
	MCA (Including External Contact)		A	2.2	2.2	2.2
	MFA		A	2.75	2.75	2.75
Heat Exchanger	Type	-	PHE	PHE	PHE	
	Quantity	ea	1	1	1	
	Pipe Size	ø, inch	PT1 (25A)	PT1 (25A)	PT11/4 (32A)	
	Water Flow Rate	l/min	48	92	150	
	Flow Switch	l/min	20	30	50	
Piping Connections	Liquid Pipe	ø, mm	9.52	9.52	12.70	
		ø, inch	3/8	3/8	1/2	
	Gas Pipe	ø, mm	15.88	22.20	28.58	
		ø, inch	5/8	7/8	11/8	
Field Wiring	Power Source Wire (L<10 m, Single Installation)	mm <sup>2</sup>	2.5	2.5	2.5	
	Transmission Cable	mm <sup>2</sup>	0.75-1.50	0.75-1.50	0.75-1.50	
Refrigerant	Type	-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	Control Method	-	EEV	EEV	EEV	
Sound	Sound Pressure <sup>1</sup>	dB(A)	27	28	31	
	Sound Power	dB(A)	54	56	59	
Dimensions	Net Weight	kg	29.0	33.0	40.0	
	Net Dimensions (W × H × D)	mm	518 x 627 x 330	518 x 627 x 330	518 x 627 x 330	
Operating Temperature Range	Ambient	Cooling	°C	-5.0-48.0	-5.0-48.0	-5.0-48.0
		Heating	°C	-20.0-35.0	-20.0-35.0	-20.0-35.0
		Hot Water (Main Cooling, HR)	°C	-20.0-35.0 (43.0)	-20.0-35.0 (43.0)	-20.0-35.0 (43.0)
	Leaving Water	Cooling	°C	5.0-30.0	5.0-30.0	5.0-30.0
		Heating	°C	20.0-50.0	20.0-50.0	20.0-50.0

## Accessories



Wired Remote Controller

MWR-WW00N



Wired Remote Controller

MWR-WW10\*N

<sup>1</sup> Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

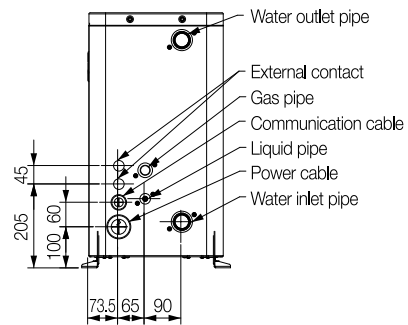
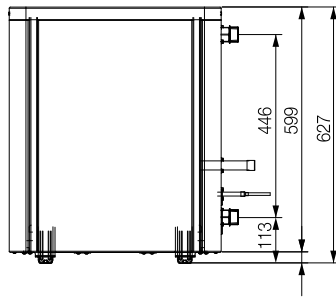
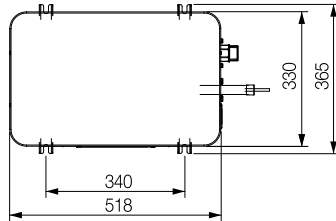


Model (HT)				AM160TNBFEB/EU	AM160TNBFG/EU	AM250TNBFEB/EU	AM250TNBFG/EU
Power Supply				1Φ, 2, 220–240 V, 50 Hz	3Φ, 4, 380–415 V, 50 Hz	1Φ, 2, 220–240 V, 50 Hz	3Φ, 4, 380–415 V, 50 Hz
Performance	Capacity (Nominal)	Cooling	kW	-	-	-	-
		Heating	kW	16	16	25	25
Power	Power Input (Nominal)	Cooling	W	-	-	-	-
		Heating	W	3.1	3.1	5.0	5.0
	Current Input (Nominal)	Cooling	A	-	-	-	-
		Heating	A	14.30	4.85	23.10	7.85
	MCA (Including External Contact)		A	18.0	16.1	30.0	16.1
	MFA		A	25	20	40	20
Heat Exchanger	Type	-	PHE	PHE	PHE	PHE	
	Quantity	ea	2	2	2	2	
	Pipe Size	ø, inch	PT1 (25A)	PT1 (25A)	PT1 (25A)	PT1 (25A)	
	Water Flow Rate	l/min	23	23	36	36	
	Flow Switch	l/min	12	12	12	12	
Piping Connections	Liquid Pipe	ø, mm	9.52	9.52	9.52	9.52	
		ø, inch	3/8	3/8	3/8	3/8	
	Gas Pipe	ø, mm	15.88	15.88	15.88	15.88	
		ø, inch	5/8	5/8	5/8	5/8	
Field Wiring	Power Source Wire (L<10 m, Single Installation)	mm <sup>2</sup>	4	2.5	4	2.5	
	Transmission Cable	mm <sup>2</sup>	0.75–1.50	0.75–1.50	0.75–1.50	0.75–1.50	
Refrigerant	Type	-	R134A (Fluorinated greenhouse gas, GWP=1,430)				
	Control Method	-	EEV	EEV	EEV	EEV	
	Factory Charging	kg / tCO <sub>2</sub> e	2.15/3.07	2.15/3.07	2.15/3.07	2.15/3.07	
Sound	Sound Pressure <sup>1</sup>	dB(A)	42	42	42	42	
	Sound Power	dB(A)	60	60	61	61	
Dimensions	Net Weight	kg	105.0	103.5	105.0	103.5	
	Net Dimensions (W × H × D)	mm	518 x 1,210 x 330	518 x 1,210 x 330	518 x 1,210 x 330	518 x 1,210 x 330	
Operating Temperature Range	Ambient	Cooling	°C	-	-	-	-
		Heating	°C	-20–43	-20–43	-20–43	-20–43
		Hot Water (Main Cooling, HR)	°C	-20–43	-20–43	-20–43	-20–43
	Leaving Water	Heating	°C	25–80	25–80	25–80	25–80

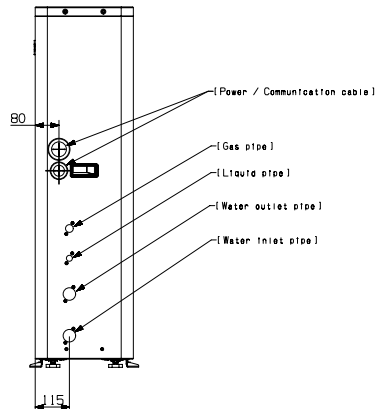
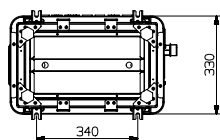
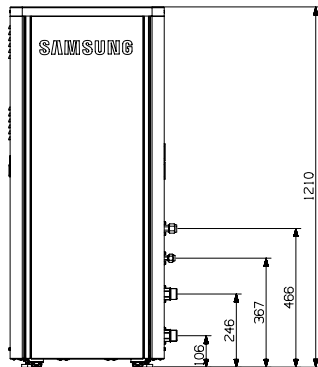
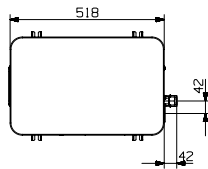
# Dimensional drawings

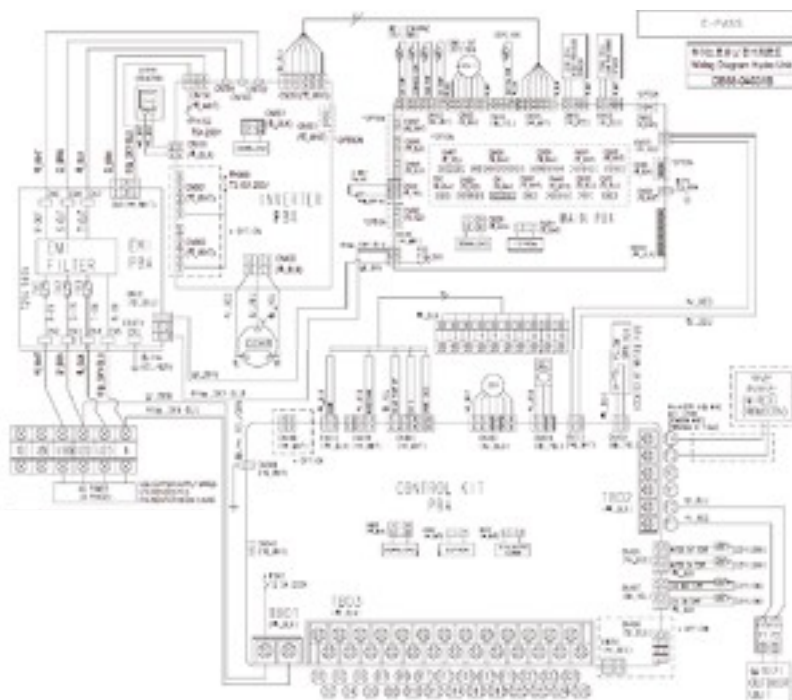
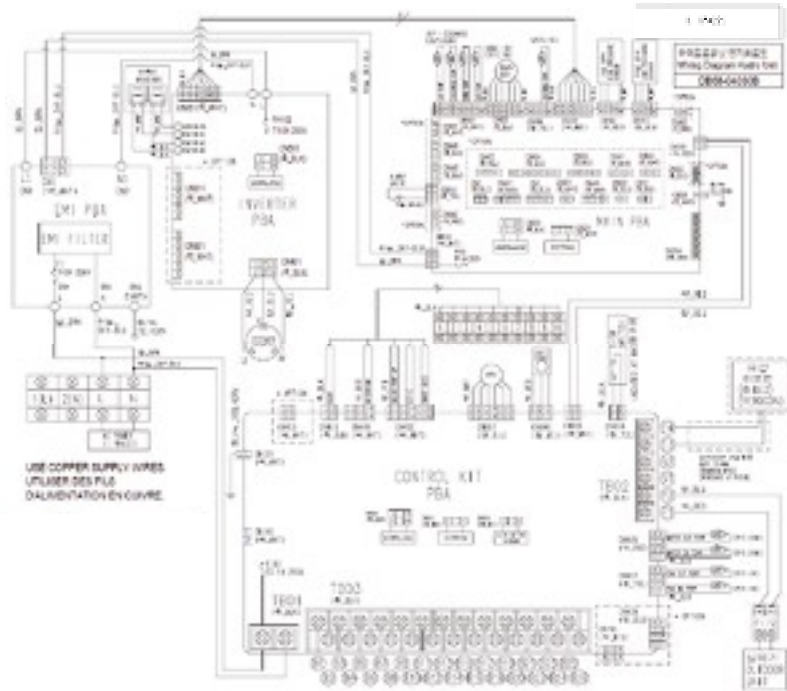
## Hydro Unit

AM\*\*\*FNBDEH/EU



AM\*\*\*TNBF\*B/EU







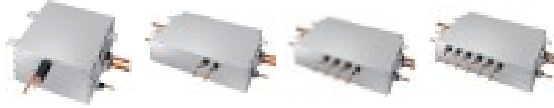
# Specifications

## Mode Control Unit (MCU)

- Enable simultaneous heating and cooling for DVM Heat Recovery model.



Model			MCU-R4NEK0N	MCU-S6NEK3N
Type			HR Changer	MCU
Power Supply	Φ, #, V, Hz		1Φ, 220–240 V, 50/60 Hz	1Φ, 220–240 V, 50/60 Hz
Mode	-		Heat Recovery	Heat Recovery
Max. number of indoor units	ea		12	18
Max. indoor units per port	ea		3	3
Number of ports	ea		4	6
Max. capacity of indoor units	kW		22.4	22.4
Max. capacity of indoor units per port	kW		5.6	5.6
	Y-Joint	kW	14.0	14.0
Refrigerant	Additional Refrigerant Charging	kg/unit	0.5	0.5
Piping Connections	Outdoor Unit - Liquid Pipe	ø, mm	9.52	9.52
		ø, inch	3/8	3/8
	Gas Pipe (Low Pressure)	ø, mm	19.05	19.05
		ø, inch	3/4	3/4
	Gas Pipe (High Pressure)	ø, mm	15.88	15.88
		ø, inch	5/8	5/8
	Indoor Unit - Liquid Pipe	ø, mm	6.35	6.35
		ø, inch	1/4	1/4
	Gas Pipe	ø, mm	12.70	12.70
		ø, inch	1/2	1/2
External Dimensions	Net Weight	kg	21.3	24.3
	Net Dimensions (W x H x D)	mm	728 x 199 x 469	728 x 199 x 469
Operating Temperature Range	Cooling	°C	-5~48	-5~48
	Heating	°C	-25~26	-25~26



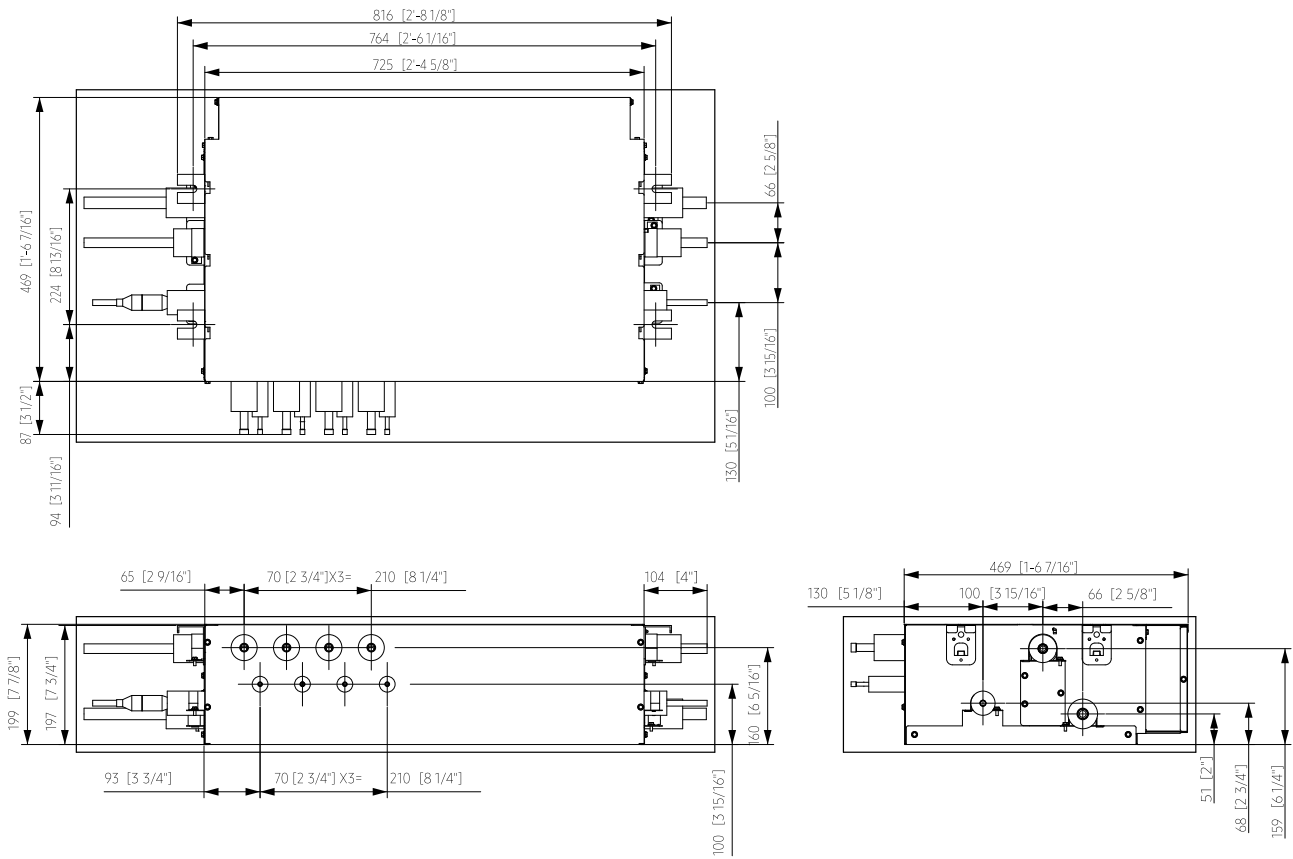
Model			MCU-S1NEK1N	MCU-S2NEK2N	MCU-S4NEK3N	MCU-S6NEK2N	MCU-S8NEK1N	MCU-S12NEK1N			
<b>Power Supply</b>			$\Phi$ , #, V, Hz		1 $\Phi$ , 2, 220-240 V, 50 Hz, 1 $\Phi$ , 2, 208-230 V, 60 Hz						
<b>Power</b>	<b>Power Input (Nominal)</b>	Cooling	W	19	25	40	55	80	110		
		Heating	W	19	25	40	55	80	110		
	<b>Current Input (Nominal)</b>	Cooling	A	0.20	0.20	0.20	0.30	0.40	0.60		
		Heating	A	0.20	0.20	0.20	0.30	0.40	0.60		
	<b>MCA</b>		A	2.0	2.0	2.0	2.0	2.0	2.0		
	<b>MFA (MOP)</b>		A	15.0	15.0	15.0	15.0	15.0	15.0		
<b>Max. number of connectable indoor units</b>			ea	8	16	32	32	64	64		
<b>Max. number of connectable indoor units per branch</b>			ea	8	8	8	8	8	8		
<b>Number of branches</b>			ea	1	2	4	6	8	12		
<b>Max. capacity of connectable indoor units</b>			kW	16.0	32.0	61.6	61.6	85.0	85.0		
<b>Max. capacity of connectable indoor units per branch</b>			kW	16.0	16.0	16.0	16.0	16.0	16.0		
		Y-Joint	kW	-	32.0	32.0	32.0	32.0	32.0		
<b>Field Wiring</b>	<b>Power Source Wire</b>		mm <sup>2</sup>	2.5	2.5	2.5	2.5	2.5	2.5		
	<b>Transmission Cable</b>		mm <sup>2</sup>	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50		
<b>Sound Pressure</b>	<b>Stable Cooling Operation</b>		dB(A)	33	34	36	36	38	38		
	<b>Heating-to-Cooling Changeover</b>		-	50	50	50	50	50	50		
<b>Additional Refrigerant Charging</b>			kg/unit	0.5	0.5	0.5	0.5	1.0	1.0		
<b>Piping Connections</b>	<b>Outdoor Unit</b>	<b>Liquid Pipe</b>	$\phi$ , mm	9.52	15.88	15.88	15.88	15.88	15.88		
			$\phi$ , inch	3/8	5/8	5/8	5/8	5/8	5/8		
		<b>Gas Pipe</b>	$\phi$ , mm	22.22	28.58	28.58	28.58	28.58	28.58		
			$\phi$ , inch	7/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8		
		<b>Discharge Gas</b>	$\phi$ , mm	19.05	28.58	28.58	28.58	28.58	28.58		
			$\phi$ , inch	3/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8		
	<b>Indoor Unit</b>	<b>Liquid Pipe</b>	$\phi$ , mm	9.52	9.52	9.52	9.52	9.52			
			$\phi$ , inch	3/8	3/8	3/8	3/8	3/8			
		<b>Gas Pipe</b>	$\phi$ , mm	15.88	15.88	15.88	15.88	15.88			
			$\phi$ , inch	5/8	5/8	5/8	5/8	5/8			
		<b>External Dimensions</b>	<b>Net Weight</b>		kg	11.0	21.0	24.5	28.5	88.6	101.9
			<b>Net Dimensions (W x H x D)</b>		mm	338 x 199 x 409	728 x 199 x 469	728 x 199 x 469	728 x 199 x 469	980 x 298 x 469	980 x 298 x 469
<b>Operation Limit</b>	<b>Cooling</b>		°C (°F)	-15-48 (5-118.4)	-15-48 (5-118.4)	-15-48 (5-118.4)	-15-48 (5-118.4)	-15-48 (5-118.4)	-15-48 (5-118.4)		
	<b>Heating</b>		°C (°F)	-25-24 (-13-75.2)	-25-24 (-13-75.2)	-25-24 (-13-75.2)	-25-24 (-13-75.2)	-25-24 (-13-75.2)	-25-24 (-13-75.2)		

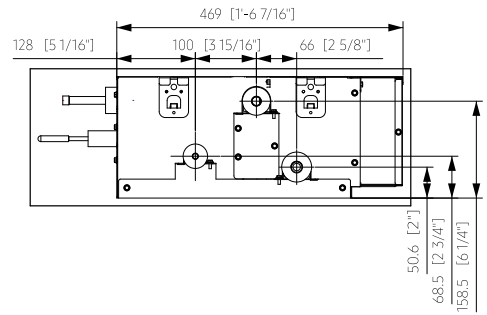
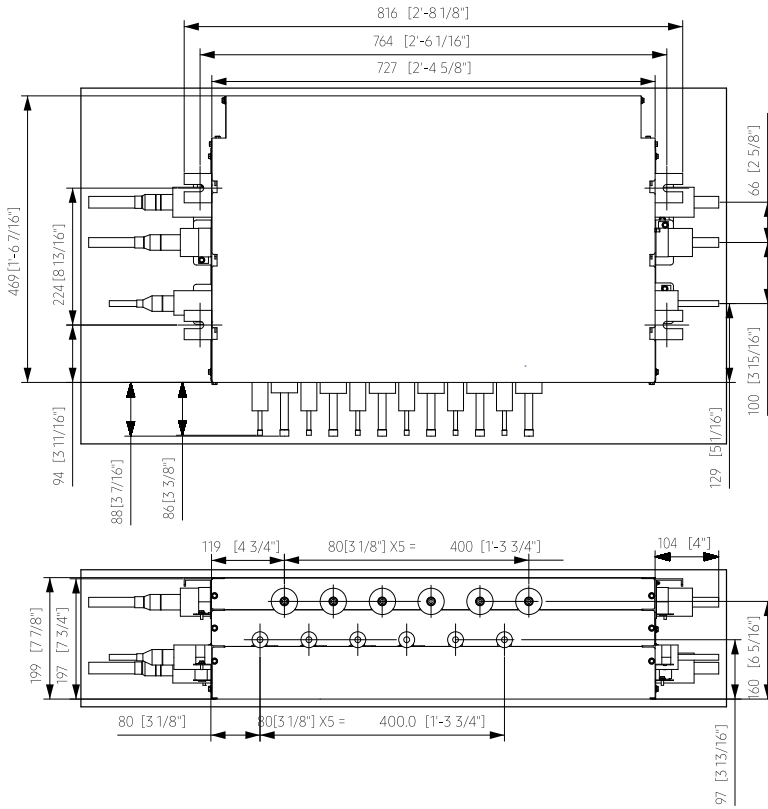
# Dimensional drawings

## Mode Control Unit (MCU)

MCU-R4NEK0N

Units: mm [inches]



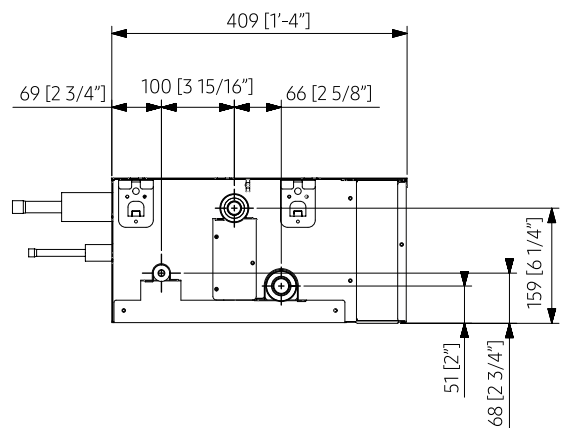
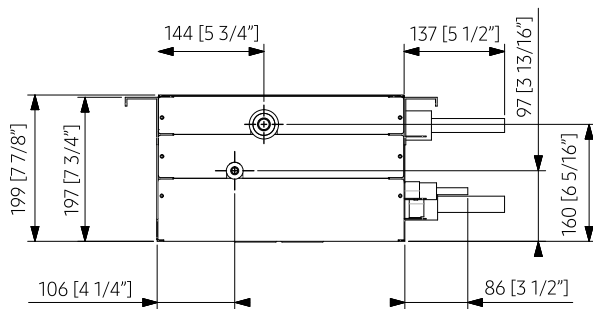
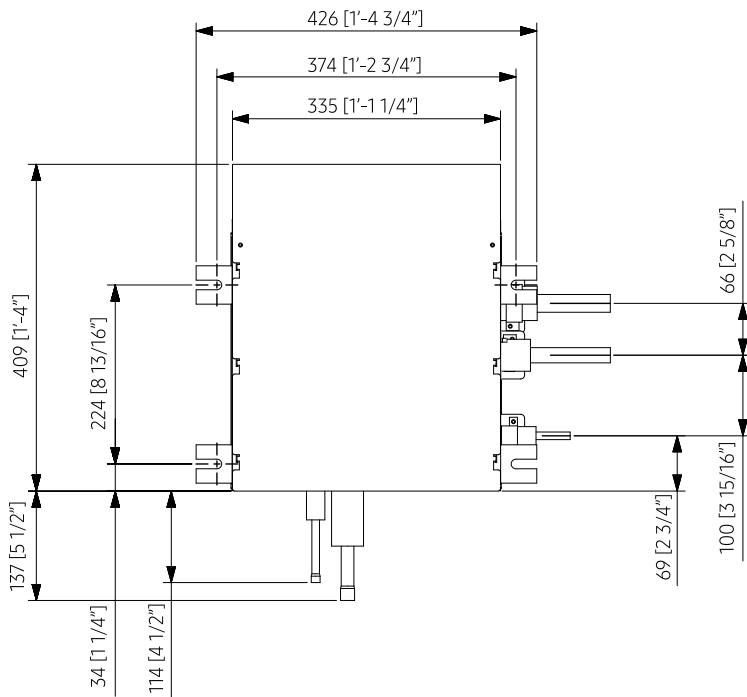


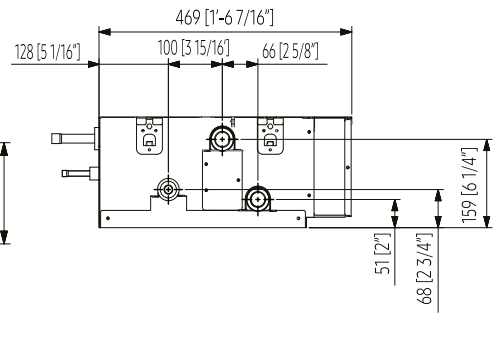
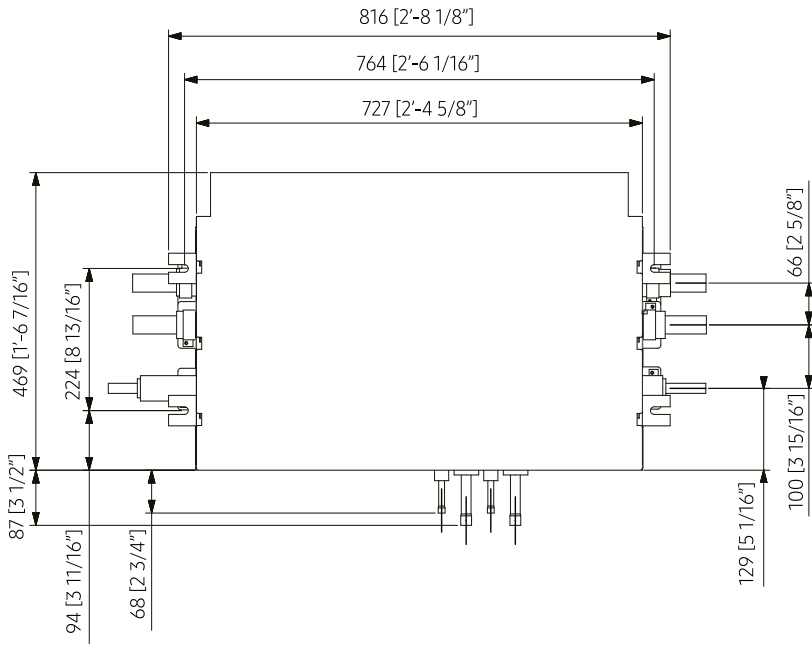
# Dimensional drawings

## Mode Control Unit (MCU)

MCU-S1NEK1N

Units: mm [inches]





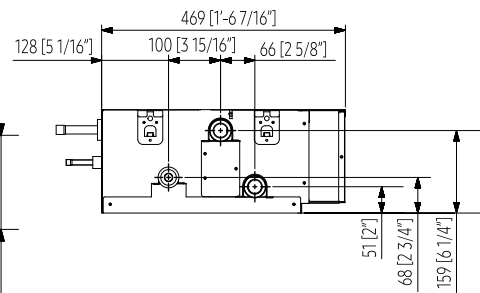
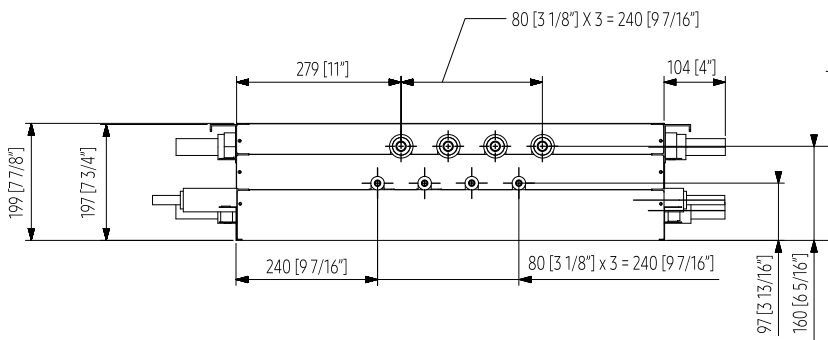
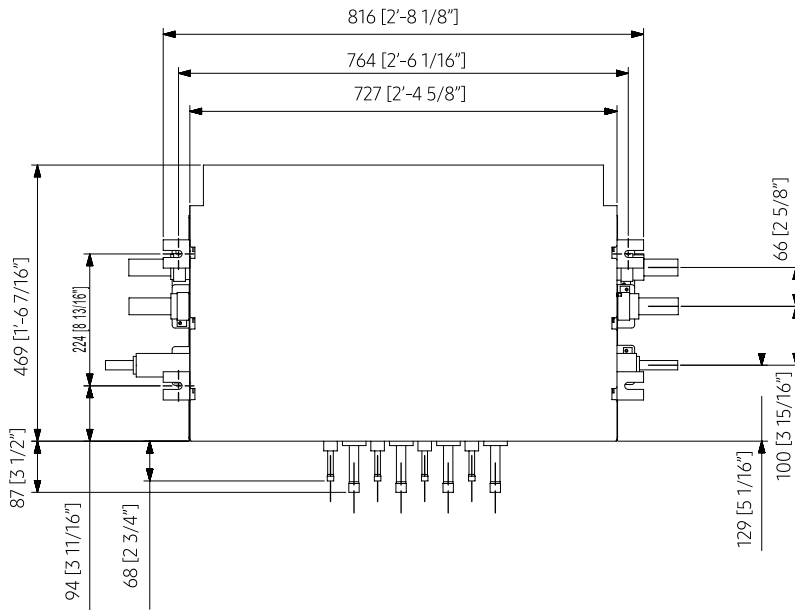


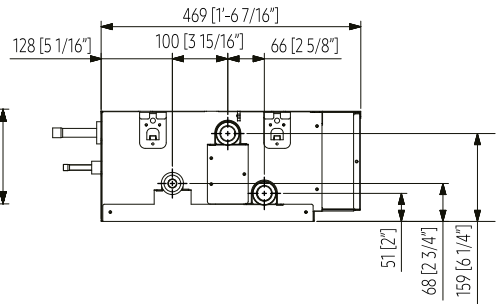
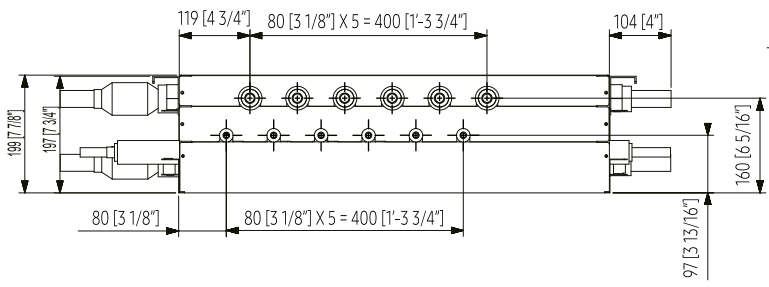
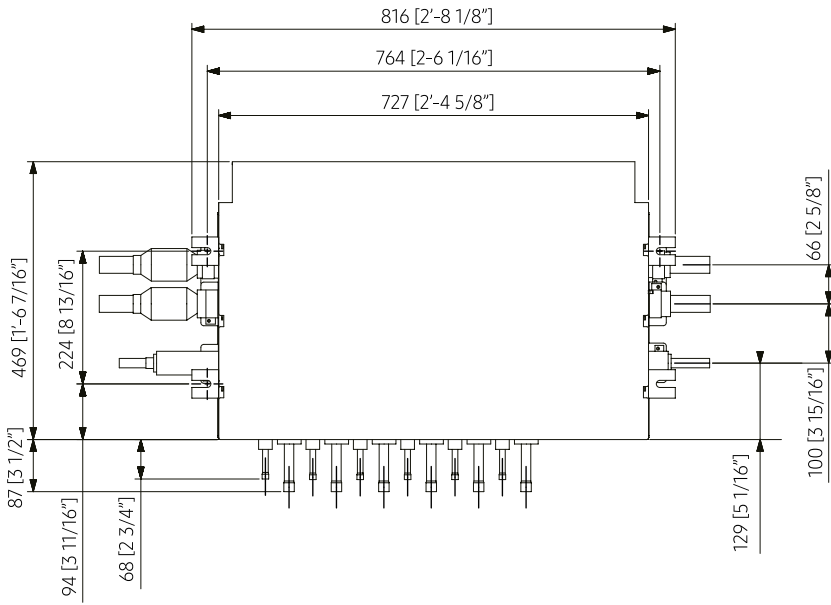
# Dimensional drawings

## Mode Control Unit (MCU)

MCU-S4NEK3N

Units: mm [inches]



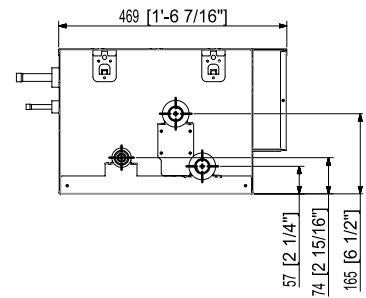
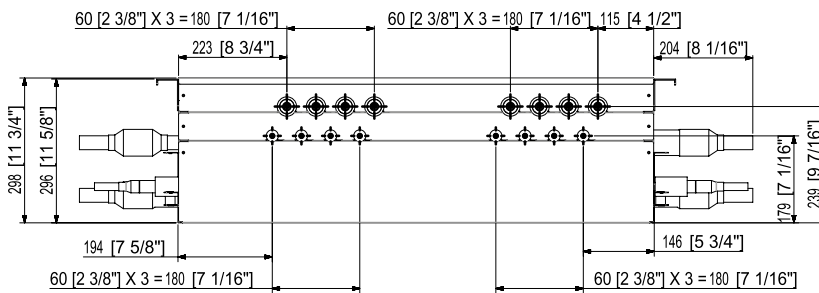
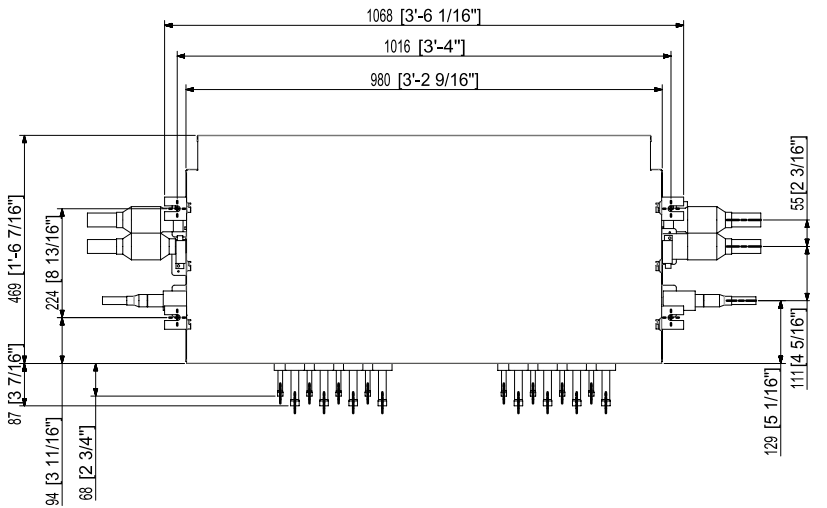


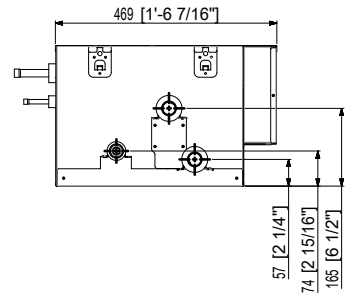
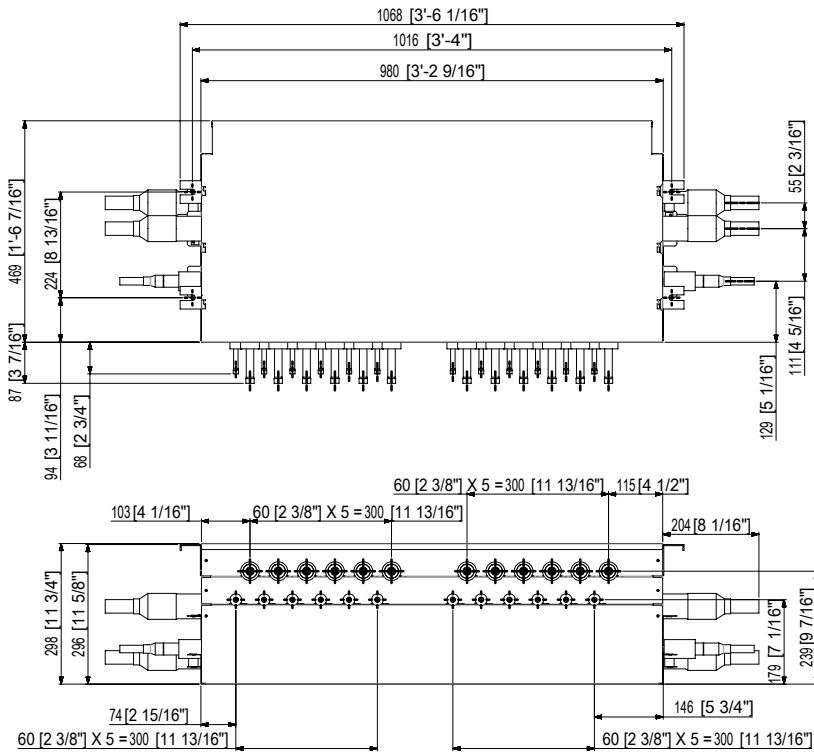
# Dimensional drawings

## Mode Control Unit (MCU)

MCU-SBNEK1N

Units: mm [inches]





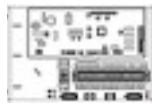
# Specifications

## AHU Kit for Outdoor Unit

- Provide the benefits of the AHU and DVM systems at the same time.
- Centralised air conditioning system.
- The AHU kit can provide cooling or heating in one package.



Model				AHU Kit		
				MXD-K025AN	MXD-K050AN	MXD-K075AN
Connectable Outdoor				HP/HR	HP/HR	HP/HR
Power Supply				1Ø, 2, 220–240 V, 50/60 Hz	1Ø, 2, 220–240 V, 50/60 Hz	1Ø, 2, 220–240 V, 50/60 Hz
Design Recommendation	AHU Capacity Allowance	Max.	kW	8.8	17.5	24.9
			MBH	30	60	85
		Min.	kW	6.3	12.6	18.9
			MBH	21.6	43.2	64.8
	AHU Internal Heat Exchanger Volume Allowance	Max.	cm <sup>3</sup>	2,000	4,000	6,000
		Min.	cm <sup>3</sup>	1,200	2,400	4,100
Piping Connections (EEV Kit)	High pressure pipe from outdoor unit	ø, mm	9.52	9.52	9.52	
		ø, inch	3/8	3/8	3/8	
	High pressure pipe to AHU	ø, mm	9.52	9.52	9.52	
		ø, inch	3/8	3/8	3/8	
Sensor	EVA. IN	Type/Ø	103HW/6Ø	103HW/6Ø	103HW/6Ø	
		m/mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	
	EVA. OUT	Type/Ø	103HW/7Ø	103HW/7Ø	103HW/7Ø	
		m/mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	
	Room	Type/Ø	103HW/Moulding	103HW/Moulding	103HW/Moulding	
		m/mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	
	Discharge	Type/Ø	103HW/7Ø	103HW/7Ø	103HW/7Ø	
		m/mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	10 m/2*0.75 mm <sup>2</sup>	
Refrigerant	Type	-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
EEV Kit	Type	-	INCLUDED	INCLUDED	INCLUDED	
	EEV Wire Length	m	2	2	7	
		ft	6.6	6.6	23.0	
External Dimensions	EEV Kit	(W x H x D)	mm	415 x 102 x 170	415 x 102 x 170	415 x 102 x 170
	Control Box	(W x H x D)	mm	380 x 130 x 280	380 x 130 x 280	380 x 130 x 280



	AHU Kit	Control Kit	EEV Kit (Optional)
	MXD-K100AN	MCM-D201N	MXD-A64K100E
	HP/HR	HP	HP
	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	-
	35.0	35.0/70.0/105.0/140.0	35.0
	120	119/239/358/478	119
	25.2	25.2/50.4/75.6/100.8	25.2
	86.4	86.4/172.8/259.2/345.6	86.4
	8,000	8,000/16,000/24,000/32,000	8,000
	6,100	6,100/12,200/18,300/24,400	6,100
	9.52	-	12.70
	3/8	-	1/2
	9.52	-	12.70
	3/8	-	1/2
	103HW/6Φ	103HW/6Φ	-
	10 m/2*0.75 mm <sup>2</sup>	7 m/2*0.75 mm <sup>2</sup>	-
	103HW/7Φ	103HW/7Φ	-
	10 m/2*0.75 mm <sup>2</sup>	7 m/2*0.75 mm <sup>2</sup>	-
	103HW/Moulding	PT1000Q/4-20 mA Field Supply	-
	10 m/2*0.75 mm <sup>2</sup>	-	-
	103HW/7Φ	PT1000Q/4-20 mA Field Supply	-
	10 m/2*0.75 mm <sup>2</sup>	-	-
	R410A (Fluorinated greenhouse gas, GWP=2,088)		
	INCLUDED	NOT INCLUDED	-
	7	-	7
	23.0	-	23.0
	415 x 102 x 170	-	Accessory for MCM-D201N, ordered separately (1 per 10HP)
	380 x 130 x 280	385 x 53 x 275	-



# VRF Chiller (HVM)







# Line-up outdoor

Model Type	Image	42 kW	56 kW	65 kW
Standard model (pump excluded)		AG042KSVANH/EU	AG056KSVANH/EU	AG070KSVANH/EU

Combining modules allows each product to work at high capacity. You can combine up to 16 modules.






# Combination guide outdoor

## Modulation guide

Total Capacity (kW)	Model			Suggested Ø water type controller piping
	AG042	AG056	AG070	
42	1			40
56		1		40
65			1	50
84	2			50
112		2		65
126	3			65
130			2	80
168		3		80
168 (high efficiency)	4			80
195			3	80
210	5			80
224		4		100
252	6			100
260			4	100
280		5		100
294	7			100
325			5	100
336		6		100
336 (high efficiency)	8			100
378	9			100
390			6	100
392		7		100
420	10			100
448		8		125

Total Capacity (kW)	Model			Suggested Ø water type controller piping
	AG042	AG056	AG070	
455			7	125
462	11			125
504		9		125
504 (high efficiency)	12			125
520			8	125
546	13			125
560		10		125
585			9	125
588	14			125
616		11		125
630	15			125
650			10	125
672		12		125
672 (high efficiency)	16			125
715			11	150
728		13		125
780			12	150
784		14		150
840		15		150
845			13	150
896		16		150
910			14	150
975			15	150
1,040			16	150

# Line-up indoor

Model Type	Image	1.9 kW	2.6 kW	3.0 kW	4.2 kW	6.0 kW	7.2 kW	7.8 kW	9.0 kW	10.0 kW
WindFree™ 1-Way Cassette FCU			•	•	•					
WindFree™ 4-Way Cassette FCU						•	•		•	•
360 Cassette FCU						•	•		•	•
Concealed FCU		•		•	•		•	•		
Cased FCU		•		•	•		•	•		

# Selection guide

## Cassette



Feature	WindFree™ 1-Way Cassette FCU	WindFree™ 4-Way Cassette FCU	360 Cassette FCU
Cooling capacity range (nominal)	2.6–4.15 kW	6.0–10.0 kW	6.0–10.0 kW
Heating capacity range (nominal)	2.9–5.0 kW	7.3–10.7 kW	7.3–10.7 kW
Fan motor type	BLDC	BLDC	BLDC
Drain Pump	Built-in	Built-in	Built-in
Filter	Microfibrous filter	Microfibrous filter	Microfibrous filter
3-Way Valve	Optional	Optional	Optional
2-pipe	●	●	●
4-pipe (optional)			
Installation	Horizontal	Horizontal	Horizontal

## Concealed and Cased



Feature	Concealed FCU <sup>1</sup>	Cased FCU <sup>1</sup>
Cooling capacity range (nominal)	1.9–7.8 kW	1.9–7.8 kW
Heating capacity range (nominal)	2.1–8.4 kW	2.1–8.4 kW
Fan motor type	3-step AC	3-step AC
Drain Pump	Optional	Optional
Filter	Polypropylene washable	Polypropylene washable
3-Way Valve	Built-in	Built-in
2-pipe	●	●
4-pipe (optional)	●	●
Installation	Horizontal/vertical	Horizontal/vertical

<sup>1</sup> Concealed FCU and Cased FCU are third party products



# Nomenclature

## Indoor units

<b>AG</b>	<b>072</b>	<b>A</b>	<b>N</b>	<b>4</b>	<b>P</b>	<b>K</b>	<b>H</b>
1	2	3	4	5	6	7	8

<b>1</b>	<b>Classification</b>	<b>AG</b>	Chiller/Fan Coil Unit (FCU)
<b>2</b>	<b>Capacity</b>	<b>x1/10 kW (3 digits)</b>	
<b>3</b>	<b>Version</b>	<b>K</b>	2016
		<b>M</b>	2017
		<b>N</b>	2018
		<b>T</b>	2020
		<b>A</b>	2021
<b>4</b>	<b>Product Type</b>	<b>N</b>	Indoor Unit
<b>5</b>	<b>Product Notation</b>	<b>1</b>	WindFree™ 1-Way Cassette
		<b>4</b>	WindFree™ 4-Way Cassette, 360 Cassette
<b>6</b>	<b>Feature</b>	<b>D</b>	Deluxe
		<b>P</b>	Premium
<b>7</b>	<b>Voltage Rating</b>	<b>K</b>	1Ø, 220~240 V, 50/60 Hz
<b>8</b>	<b>Mode</b>	<b>H</b>	Heat Pump

## Indoor units (third party)

<b>ACL</b>	<b>65</b>	<b>D</b>	<b>F</b>
1	2	3	4

<b>1</b>	<b>Classification</b>	<b>ACL</b>	Chiller/Fan Coil Unit (FCU)
<b>2</b>	<b>Capacity</b>	<b>x1/10 kW (3 digits)</b>	
<b>3</b>	<b>Product Notation</b>	<b>D</b>	2-Pipe FCU
		<b>Q</b>	4-Pipe FCU
		<b>A</b>	Accessory
<b>4</b>	<b>Product Type</b>	<b>F</b>	Concealed
		<b>G</b>	Cased

# Outdoor units

<b>AG</b>	<b>070</b>	<b>K</b>	<b>S</b>	<b>V</b>	<b>A</b>	<b>N</b>	<b>H</b>
1	2	3	4	5	6	7	8

<b>1</b>	<b>Classification</b>	AG	Chiller (HVM Chiller)
<b>2</b>	<b>Capacity</b>	<b>kW (3 digits)</b>	
<b>3</b>	<b>Version</b>	K	2016
		M	2017
		N	2018
<b>4</b>	<b>Product Type</b>	S	SETHVM Chiller
<b>5</b>	<b>Product Notation</b>	V	Inverter
<b>6</b>	<b>Feature</b>	A	Non-pump
<b>7</b>	<b>Voltage Rating</b>	N	3Φ, 380-415 V, 50/60 Hz
<b>8</b>	<b>Mode</b>	H	Heat Pump

# Specifications

## HVM Chiller



- Air-cooled HVM Chiller Heat Pump.
- Option of connecting up to 16 modules for a total capacity of more than 1 MW.
- Capacity modulation between 15% and 100%.
- Each unit houses 2 Inverter Scroll compressors, all equipped with Flash Injection technology.



Model				AG042KSVANH/EU	AG056KSVANH/EU	AG070KSVANH/EU	
Power Supply		Φ, #, V, Hz		3Φ, 4, 380-415 V, 50/60 Hz	3Φ, 4, 380-415 V, 50/60 Hz	3Φ, 4, 380-415 V, 50/60 Hz	
Performance	Capacity (Nominal)	Cooling	kW	42	56	65	
		Heating	kW	42.0	56.0	69.5	
Power	Power Input (Nominal)	Cooling	kW	12.35	18.67	26.00	
		Heating	kW	11.83	17.50	24.39	
Power	Current Input (Nominal)	Cooling	A	19.6	29.6	41.2	
		Heating	A	18.8	27.8	38.7	
	Current	MCA	A	32	46	58	
		MFA	A	40	60	75	
Efficiency	EER Nominal Cooling (pump input is not included)		W/W	3.4	3.0	2.5	
	COP Nominal Heating (pump input is not included)		W/W	3.55	3.20	2.85	
	ESEER (Pump input is not included)		W/W	5.7	5.4	5.0	
Fan	Type		-	Axial Fan	Axial Fan	Axial Fan	
	Number of Fans		-	2	2	2	
	Airflow Rate		m <sup>3</sup> /min		364 (182 x 2)	364 (182 x 2)	392 (196 x 2)
			L/s		6,067	6,067	6,535
	External Static Pressure	Max.		mmAq	8.00	8.00	8.00
			Pa	78.5	78.5	78.5	
Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	
	Output x n		W	630 x 2	630 x 2	630 x 2	
Water Side Heat Exchanger	Type		-	Brazing Plate	Brazing Plate	Brazing Plate	
	Water Flow Rate (Cooling/Heating)		L/min	120/120	160/160	186/200	
	Pressure Drop (Set. Nominal)		kPa	60	100	120	
	Max. Operating Pressure		MPa	1	1	1	
	Connection Type		-	FLANGE	FLANGE	FLANGE	
	Pipe Connection (Inlet/Outlet)		ø, mm		40	40	50
			ø, inch		1 1/2	1 1/2	2
Quantity		-		2	2	2	
Wiring Connections	Communication	Min.	mm <sup>2</sup>	0.75	0.75	0.75	
		Remark		F1, F2	F1, F2	F1, F2	
Refrigerant	Type		-	R410A(Fluorinated greenhouse gas, GWP=2,088)			
	Factory Charging		kg/tCO <sub>2</sub> e	18/37.58	18/37.58	18/37.58	
Sound 2	Sound Pressure	Cooling	dB(A)	60	62	63	
		Heating	dB(A)	57	59	64	
	Sound Power		dB(A)	80	83	85	
External Dimensions	Net Weight		kg	446.0	446.0	465.0	
	Net Dimensions (W x H x D)		mm	1,795 x 1,695 x 765	1,795 x 1,695 x 765	1,795 x 1,695 x 765	
Operating Water Temperature Range	Cooling		°C	5.0-25.0	5.0-25.0	5.0-25.0	
	Cooling (if using brine)		°C	-10.0-25.0	-10.0-25.0	-10.0-25.0	
	Heating		°C	25.0-55.0	25.0-55.0	25.0-55.0	
Operating Water Flow Range	Water Flow Rate		L/min	60-240	80-320	93-400	
	Minimum Water Storage in the System		L	294	392	490	
Operating Ambient Temperature Range	Cooling		°C	-15.0-48.0	-15.0-48.0	-15.0-48.0	
	Heating		°C	-25.0-43.0	-25.0-43.0	-25.0-43.0	

## Accessories



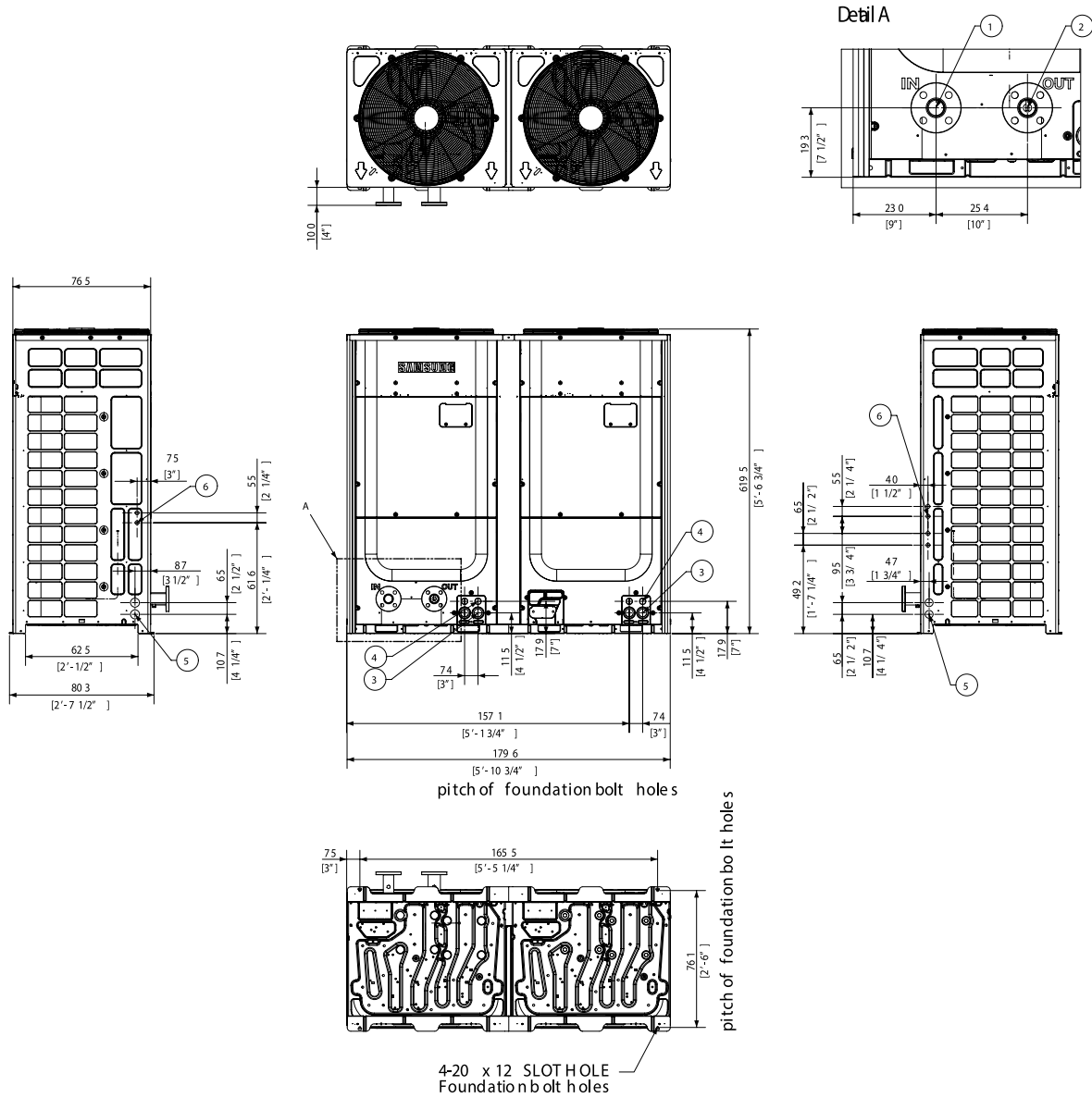
Module Controller	DMS2.5	BACnet Gateway	Touch Centralised Controller	On/Off controller	PIM Module (Pulse Interface Module)	LonWorks Gateway	External Contact Interface Module
MCM-A00N	MIM-D01AN	MIM-B17BN	MCM-A300N	MCM-A202DN	MIM-B16N	MIM-B18BN	MIM-B14

# Dimensional drawings

## HVM Chiller

AG042/056/070KSVANH/EU

Units: mm [inches]



NO	Name	Description
1	Inlet water flange	15/20 HP: 40A Din Flange, 25 HP: 50A Din Flange
2	Outlet water flange	15/20 HP: 40A Din Flange, 25 HP: 50A Din Flange
3	Power wiring conduits	Knock-out hole (front)
4	Communication wiring conduits	Knock-out hole (front)
5	Power wiring conduits	Knock-out hole (side)
6	Communication wiring conduits	Knock-out hole (side)

# Specifications

## WindFree™ 1-Way Cassette FCU UNIQUE

- One-way air supply by means of a 100 mm wide blade.
- Cross-flow fan direct driven by a BLDC motor.
- Built-in condensation drain pump.
- Optional 3-Way valve kit.
- Available in WindFree™ function.
- Can be controlled by Smartphone via Wi-Fi Kit.



Model				AG026TN1DKH/EU	AG032TN1DKH/EU	AG042TN1DKH/EU
Power Supply		Φ, V, Hz		1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz
Mode				HP	HP	HP
Performance	Capacity (Nominal)	Cooling	kW	2.60	3.00	4.20
		Heating	kW	2.90	3.40	5.00
Power	Power Input (Nominal)	Cooling	W	27	35	55
		Heating	W	27	35	55
	Current Input (Nominal)	Cooling	A	0.14	0.19	0.29
		Heating	A	0.14	0.19	0.29
Heat Exchanger	Type	-		Fin & tube	Fin & tube	Fin & tube
Fan	Type	-		Crossflow fan	Crossflow fan	Crossflow fan
	Number of Fans	ea		1	1	1
	Airflow Rate	H/M/L	m <sup>3</sup> /min	6.8/5.8/4.9	7.8/6.8/5.8	14.6/12.6/10.7
Fan Motor	Type	-		BLDC	BLDC	BLDC
	Output x n	W		27 x 1	27 x 1	65 x 1
Water	Water Flow Rate	Cooling	L/min	7.5	9.6	11.9
	Water Flow Rate	Heating	L/min	8.4	9.7	14.4
	Pressure Drop	Cooling	kPa	23.0	34.5	45.0
	Pressure Drop	Heating	kPa	28.0	35.8	64.6
Piping Connections	Liquid Pipe (IN)	Type		PF MALE	PF MALE	PF MALE
		ø, mm (inch)		20A (3/4")	20A (3/4")	20A (3/4")
	Liquid Pipe (OUT)	Type		PF MALE	PF MALE	PF MALE
		ø, mm (inch)		20A (3/4")	20A (3/4")	20A (3/4")
	Heat Insulation	-		Both inlet/outlet pipes	Both inlet/outlet pipes	Both inlet/outlet pipes
Drain Pipe	ø, mm		VP20 (OD 26, ID 20)	VP20 (OD 26, ID 20)	VP25 (OD 32, ID 25)	
Sound	Sound Pressure <sup>1</sup>	(H/M/L)	dB(A)	33/31/29	38/35/31	40/37/33
	Sound Power	Cooling	dB(A)	50	53	59
Dimensions	Net Weight	kg		10.1	10.1	14.0
	Net Dimensions (W × H × D)	mm		970 × 135 × 410	970 × 135 × 410	1,200 × 138 × 450
Casing	Material	-		Plastic	Plastic	Plastic
Panel	Panel Model	-		PC1NWFMBN(WindFree™)	PC1NWFMBN(WindFree™)	PC1BWFMBN(WindFree™)
Additional Accessories	Drain Pump	Type		Built-in	Built-in	Built-in
		Max. Lifting Height/ Displacement	mm/(cc/ min)	750/400	750/400	750/400
	3-Way Valve Kit (optional)	-		ACL-A60V3	ACL-A60V3	ACL-A60V3
	Filter	-				

## Accessories



Panel WindFree™ (optional)	Panel WindFree™ (optional)	FCU Interface Module	Wireless Remote Controller	Simple Type Controller	Touch Controller	Wired Remote Controller
PC1NWFMBN	PC1BWFMBN	MIM-F10N	AR-EH03E	MWR-SH00N	MWR-SH11N	MWR-WG00*N

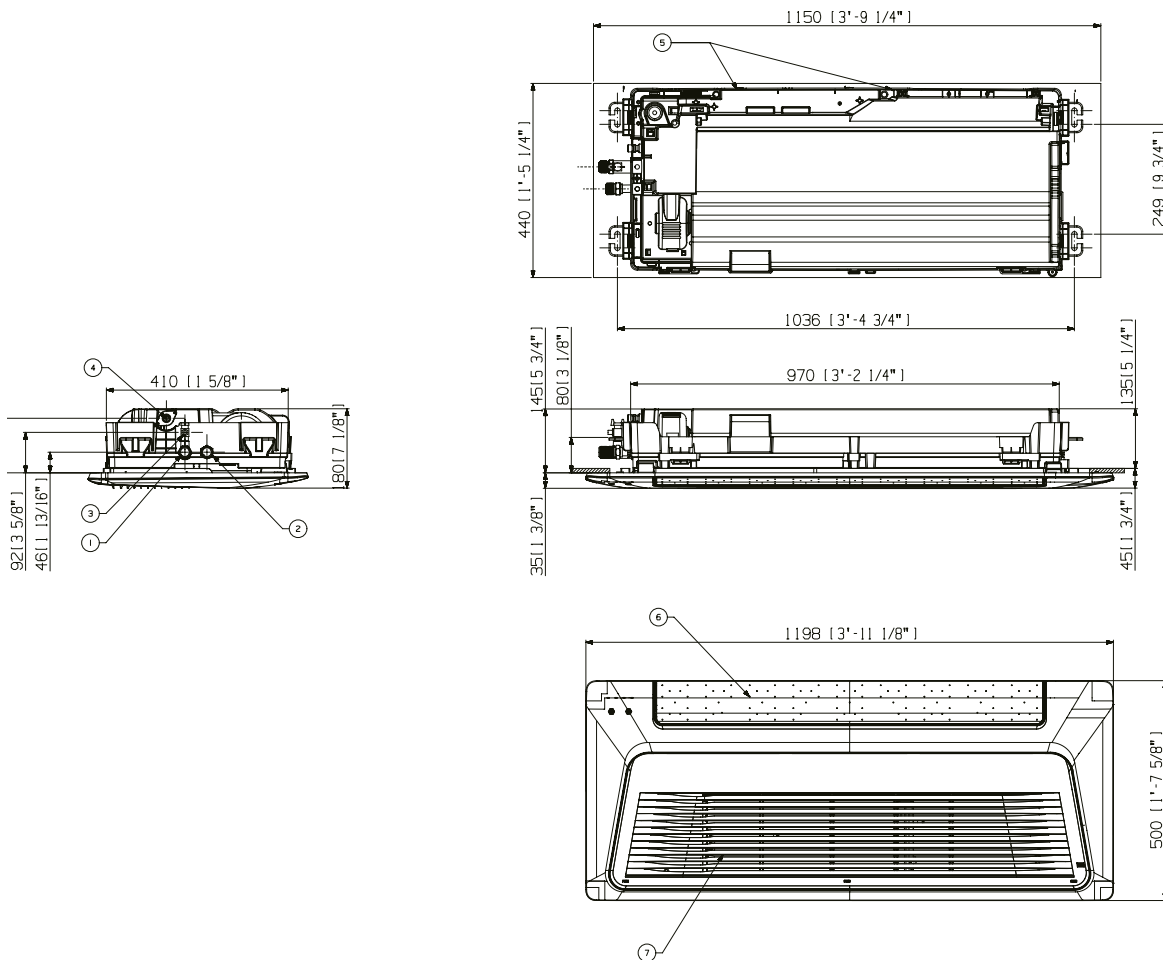
Cooling: Indoor temperature 27 °C DB, 19 °C WB/Water In/Out temperature 7 °C, 12 °C Heating: Indoor temperature 20 °C DB, 15 °C WB/Water In/Out temperature 45 °C, 40 °C. Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions. Specifications may be subject to change without prior notice. Select wire size based on the Minimum Circuit Ampacity (MCA) value.

# Dimensional drawings

## WindFree™ 1-Way Cassette FCU

AG026/032TN1DKH/EU

Units: mm [inches]



NO	Name	Description
1	Water pipe connection out	PF Male 3/4" (20A)
2	Water pipe connection in	PF Male 3/4" (20A)
3	Air vent valve	
4	Drain hose	VP20 (OD 26, ID 20)
5	Power supply/communication wiring conduits	
6	Air discharge part	
7	Air suction part	

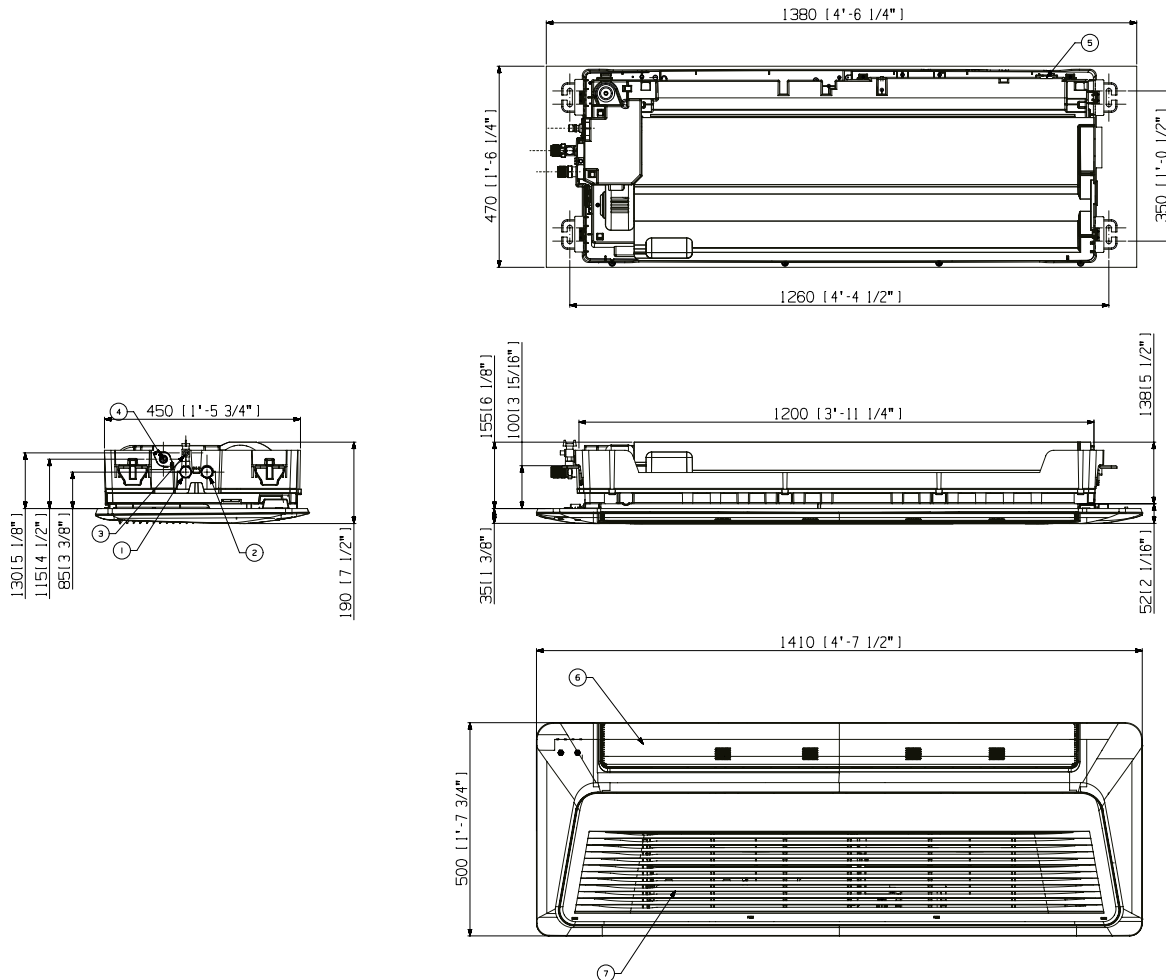


# Dimensional drawings

## WindFree™ 1-Way Cassette FCU

AG042TN1DKH/EU

Units: mm [inches]



NO	Name	Description
1	Water pipe connection out	PF Male 3/4" (20A)
2	Water pipe connection in	PF Male 3/4" (20A)
3	Air vent valve	
4	Drain hose	VP25 (OD 32, ID 25)
5	Power supply/communication wiring conduits	
6	Air discharge part	
7	Air suction part	



# Specifications

## WindFree™ 4-Way Cassette FCU UNIQUE

- Four-way air supply via independently adjustable blades.
- Direct drive fan powered by a BLDC motor.
- Built-in condensation drain pump.
- Optional 3-Way valve kit.
- Can be controlled by Smartphone via Wi-Fi Kit.
- Available in WindFree™ function.



Model				AG060AN4DKH/EU	AG072AN4DKH/EU	AG090AN4DKH/EU	AG105AN4DKH/EU				
<b>Power Supply</b>				Φ, V, Hz				1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz
<b>Mode</b>				-				HP	HP	HP	HP
<b>Performance</b>	<b>Capacity (Nominal)</b>	<b>Cooling</b>	<b>kW</b>	6.0	7.2	9.0	10.0				
		<b>Heating</b>	<b>kW</b>	7.3	8.5	10.0	10.7				
<b>Power</b>	<b>Power Input (Nominal)</b>	<b>Cooling</b>	<b>W</b>	50	73	82	99				
		<b>Heating</b>	<b>W</b>	50	73	82	99				
	<b>Current Input (Nominal)</b>	<b>Cooling</b>	<b>A</b>	0.37	0.50	0.58	0.79				
		<b>Heating</b>	<b>A</b>	0.37	0.50	0.58	0.79				
<b>Heat Exchanger</b>	<b>Type</b>	-		Fin & tube	Fin & tube	Fin & tube	Fin & tube				
<b>Fan</b>	<b>Type</b>	-		Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan				
	<b>Number of Fans</b>	-		1	1	1	1				
	<b>Airflow Rate</b>	<b>H/M/L</b>	<b>m<sup>3</sup>/min</b>	18.9/16.5/13.6	21.3/18.2/13.6	23.3/21.3/19.4	30.1/26.2/19.4				
<b>Fan Motor</b>	<b>Type</b>	-		BLDC	BLDC	BLDC	BLDC				
	<b>Output x n</b>	-		65 x 1	65 x 1	97 x 1	97 x 1				
<b>Water</b>	<b>Water Flow Rate</b>	<b>Cooling</b>	<b>l/min</b>	17.5	20.8	26.0	28.9				
	<b>Water Flow Rate</b>	<b>Heating</b>	<b>l/min</b>	21.1	24.5	28.9	30.9				
	<b>Pressure Drop</b>	<b>Cooling</b>	<b>kPa</b>	27.0	36.0	46.8	56.3				
	<b>Pressure Drop</b>	<b>Heating</b>	<b>kPa</b>	37.3	48.6	56.3	63.4				
<b>Piping Connections</b>	<b>Liquid Pipe (IN)</b>	<b>Type</b>	-		PF MALE	PF MALE	PF MALE	PF MALE			
		<b>ø, mm (inch)</b>	-		20A (3/4)	20A (3/4)	20A (3/4)	20A (3/4)			
	<b>Liquid Pipe (OUT)</b>	<b>Type</b>	-		PF MALE	PF MALE	PF MALE	PF MALE			
		<b>ø, mm (inch)</b>	-		20A (3/4)	20A (3/4)	20A (3/4)	20A (3/4)			
	<b>Heat Insulation</b>	-		Both inlet/outlet pipes	Both inlet/outlet pipes	Both inlet/outlet pipes	Both inlet/outlet pipes				
<b>Drain Pipe</b>	-		ø, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)				
<b>Sound</b>	<b>Sound Pressure</b>	<b>(H/M/L)</b>	<b>dB(A)</b>	37/33/30	41/36/30	42/39/36	45/41/37				
	<b>Sound Power</b>	<b>Cooling</b>	<b>dB(A)</b>	56	60	58	60				
<b>Dimensions</b>	<b>Net Weight</b>	-		15.5	15.5	18.0	18.0				
	<b>Net Dimensions (W × H × D)</b>	-		mm	840 x 204 x 840	840 x 204 x 840	840 × 246 × 840	840 × 246 × 840			
<b>Panel</b>	<b>Panel Model</b>	-		PC4NUFMAN	PC4NUFMAN	PPC4NUFMAN	PC4NUFMAN				
<b>Additional Accessories</b>	<b>Drain Pump</b>	<b>Type</b>	-		Built-in	Built-in	Built-in	Built-in			
		<b>Max. Lifting Height/ Displacement</b>	-		mm/(cc/min)	750/400	750/400	750/400	750/400		
	<b>3-Way Valve Kit (optional)</b>	-		ACL-A60V3	ACL-A60V3	ACL-A60V3	ACL-A60V3				
<b>Filter</b>	-		-	Microfibrous filter	Microfibrous filter	Microfibrous filter	Microfibrous filter				

## Accessories



Panel WindFree™	FCU Interface Module	Wireless Remote Controller	Simple Type Controller	Touch Controller	Wired Remote Controller
PC4NUFMAN	MIM-F10N	AR-EH03E	MWR-SH00N	MWR-SH11N	MWR-WG00*N

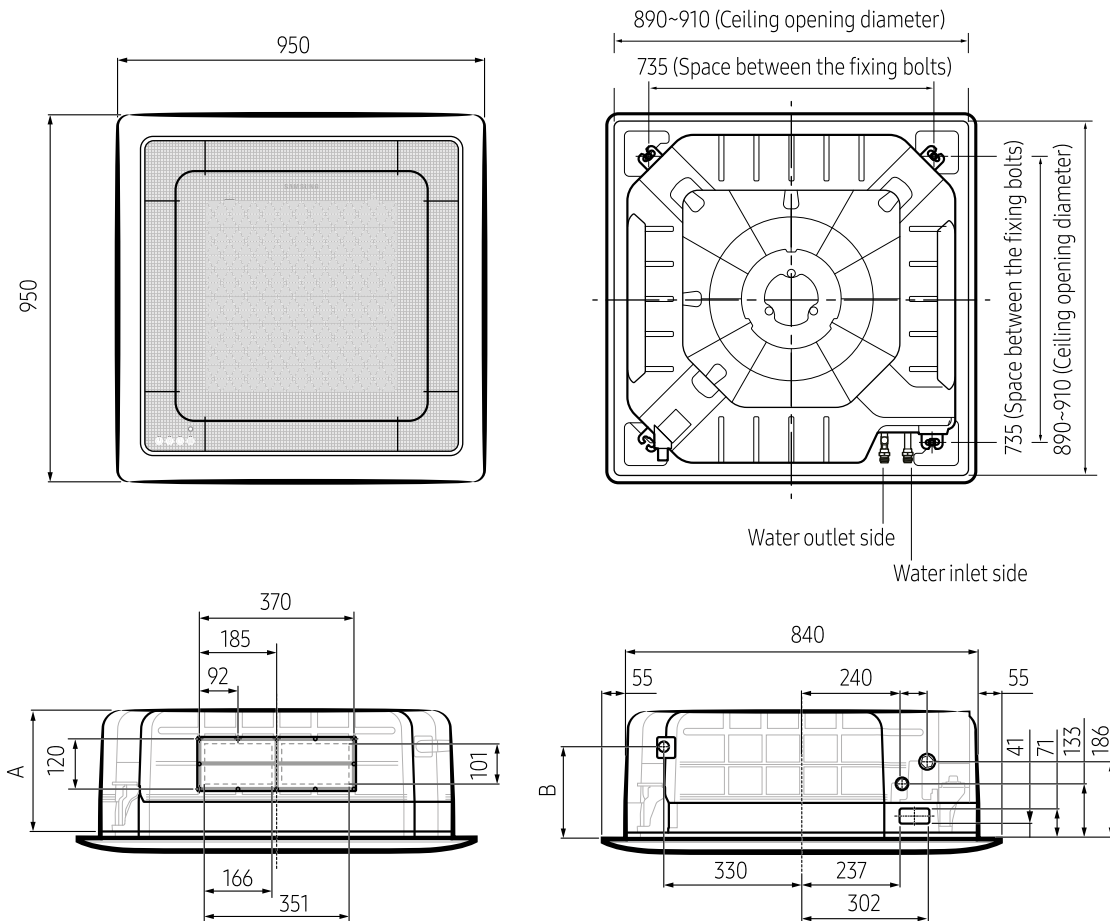
Cooling: Indoor temperature 27 °C DB, 19 °C WB/Water In/Out temperature 7 °C, 12 °C Heating: Indoor temperature 20 °C DB, 15 °C WB/Water In/Out temperature 45 °C, 40 °C.  
 Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.  
 Specifications may be subject to change without prior notice.  
 Select wire size based on the Minimum Circuit Ampacity (MCA) value.

# Dimensional drawings

## WindFree™ 4-Way Cassette FCU

AG060/072/090/105AN4DKH/EU

Units: mm [inches]



The sub duct hole is not applicable to the WindFree™ models.

Category	Type A	Type B
Model	AG060*N4DKH*	AG090*N4DKH*
	AG072*N4DKH*	AG105*N4DKH*
A (mm)	204	246
B (mm)	196	222
Connection port (mm)	PF 3/4" Male	
Flexible hose connection port (mm)	VP25 (outer diameter: Ø32, inner diameter: Ø25)	

# Specifications

## 360 Cassette FCU

- 360 degree air supply.
- Bladeless discharge. Booster fans can be individually controlled, allowing for completely horizontal flow discharge. Coandă effect is created even without ceiling.
- 3-Way valve kit (optional).
- Can be controlled by Smartphone via Wi-Fi Kit.
- A front panel is mandatory and can be selected from one of the 4 front panels mentioned in the accessories.
- Built-in condensation drain pump.
- Predisposition of the air inlet to let fresh air in.
- Circular or square cassette panel.
- Optional Motion Detect Sensor.



Model				AG060MN4PKH/EU	AG072MN4PKH/EU	AG090MN4PKH/EU	AG105MN4PKH/EU
Power Supply			Φ, V, Hz	1Φ, 220–240 V, 50/60 Hz	1Φ, 220–240 V, 50/60 Hz	1Φ, 220–240 V, 50/60 Hz	1Φ, 220–240 V, 50/60 Hz
Mode			-	HP	HP	HP	HP
Performance	Capacity (Nominal)	Cooling	kW	6.0	7.2	9.0	10.0
		Heating	kW	7.3	8.5	10.0	10.7
Power	Power Input (Nominal)	Cooling	W	58	58	77	100
		Heating	W	58	58	77	100
	Current Input (Nominal)	Cooling	A	0.50	0.50	0.62	0.79
		Heating	A	0.50	0.50	0.62	0.79
Heat Exchanger	Type	-	Fin & tube	Fin & tube	Fin & tube	Fin & tube	
Fan	Type	-	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan	
	Number of Fans	ea	1	1	1	1	
	Airflow Rate	H/M/L	m <sup>3</sup> /min	21.0/17.5/15.0	25.5/22.0/19.8	29.5/24.0/19.8	31.5/22.5/19.8
Fan Motor	Type	-	BLDC	BLDC	BLDC	BLDC	
	Output x n	W	65 x 1	97 x 1	97 x 1	97 x 1	
Water	Water Flow Rate	Cooling	l/min	17.5	20.8	26.0	28.9
	Water Flow Rate	Heating	l/min	21.1	24.5	28.9	30.9
	Pressure Drop	Cooling	kPa	27.0	26.0	38.5	47.4
	Pressure Drop	Heating	kPa	37.6	35.6	47.4	53.2
Piping Connections	Liquid Pipe (IN)	Type		PF MALE	PF MALE	PF MALE	PF MALE
		ø, mm (inch)		20A (3/4)	20A (3/4)	20A (3/4)	20A (3/4)
	Liquid Pipe (OUT)	Type		PF MALE	PF MALE	PF MALE	PF MALE
		ø, mm (inch)		20A (3/4)	20A (3/4)	20A (3/4)	20A (3/4)
	Heat Insulation	-		Both inlet/outlet pipes	Both inlet/outlet pipes	Both inlet/outlet pipes	Both inlet/outlet pipes
Drain Pipe		ø, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	
Sound	Sound Pressure	(H/M/L)	dB(A)	40/37/32	39/35/33	43/38/33	45/39/33
	Sound Power	Cooling	dB(A)	57	58	60	62
Dimensions	Net Weight		kg	21.0	25.0	25.0	25.0
	Net Dimensions (W × H × D)		mm	947 x 281 x 947	947 x 365 x 947	947 x 365 x 947	947 x 365 x 947
Casing	Material	-	-	-	-	-	
Panel	Panel Model	White		PC4NUDMAN	PC4NUNMAN	PC4NUNMAN	PC4NUNMAN
				PC4NUNMAN	PC4NUNMAN	PC4NUNMAN	PC4NUNMAN
		Black		PC4NBDMAN	PC4NBDMAN	PC4NBDMAN	PC4NBDMAN
				PC4NBNMAN	PC4NBNMAN	PC4NBNMAN	PC4NBNMAN
Additional Accessories	Drain Pump	Type	-	Built-in	Built-in	Built-in	Built-in
		Max. Lifting Height/ Displacement	mm/(cc/min)	750/400	750/400	750/400	750/400
	3-Way Valve Kit	(optional)		ACL-A60V3	ACL-A60V3	ACL-A60V3	ACL-A60V3
Filter		-		Microfibrous filter	Microfibrous filter	Microfibrous filter	Microfibrous filter

Cooling: Indoor temperature 27 °C DB, 19 °C WB/Water In/Out temperature 7 °C, 12 °C Heating: Indoor temperature 20 °C DB, 15 °C WB/Water In/Out temperature 45 °C, 40 °C.  
 Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.  
 Specifications may be subject to change without prior notice.  
 Select wire size based on the Minimum Circuit Ampacity (MCA) value.

# Accessories

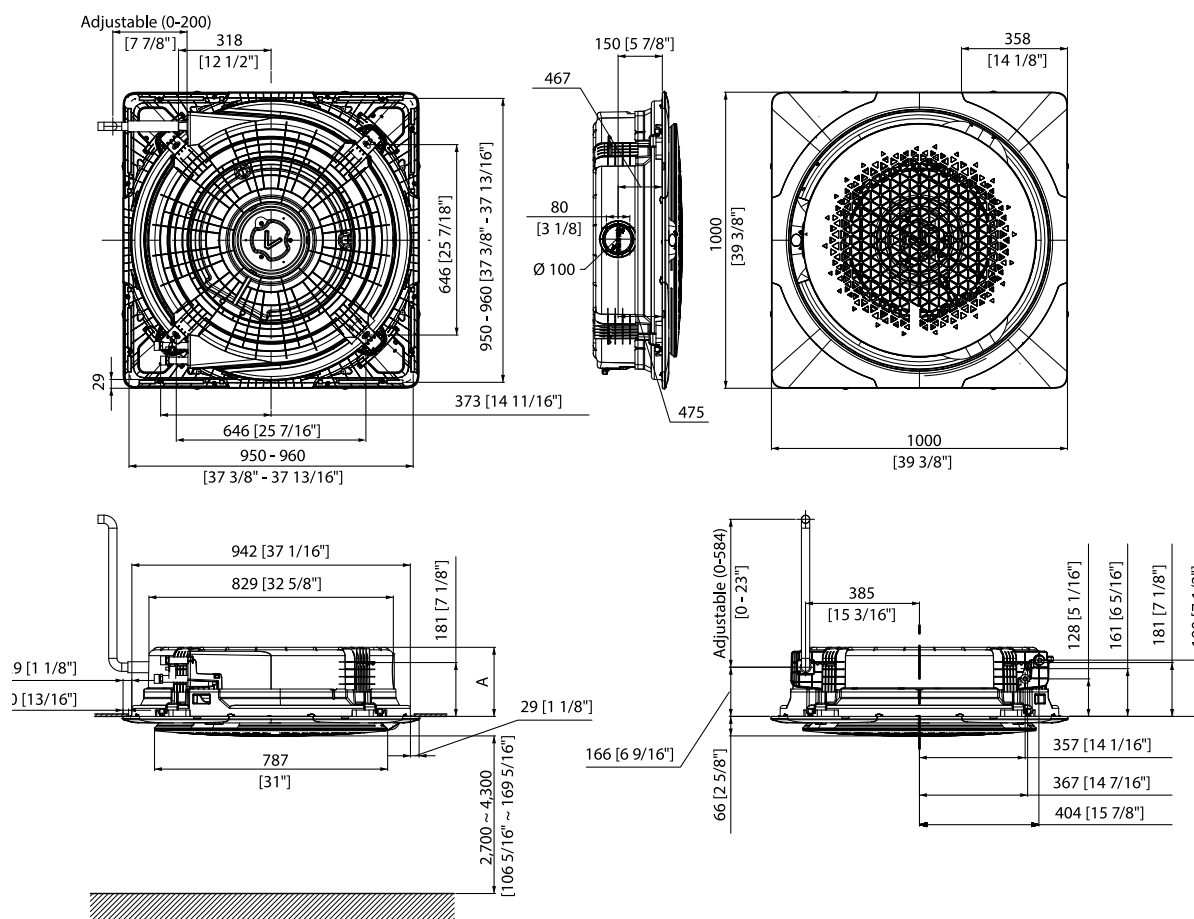
Panel (Mandatory)	Panel (Mandatory)	Panel (Mandatory)	Panel (Mandatory)	FCU Interface Module	Wireless Remote Controller	Touch Controller	Wired Remote Controller	Simple Type Controller	Motion Detect Sensor (Optional)
PC4NBDMAN	PC4NBNMAN	PC4NUDMAN	PC4NUNMAN	MIM-F10N	AR-EH03E	MWR-SH11N	MWR-WG00*N	MWR-SH00N	MCR-SME

# Dimensional drawings

## 360 Cassette FCU

AG060/072/090/105MN4PKH/EU

Units: mm [inches]



Pos.	A Type	B Type
Model	AG060MN4PKH/EU	AG072MN4PKH/EU AG090MN4PKH/EU AG105MN4PKH/EU
A	233 [9 3/16]	317 [12 1/2]
Pipe connection	PF 3/4 Male	
Drain pipe connection		VP25 (OD 32, ID 25)

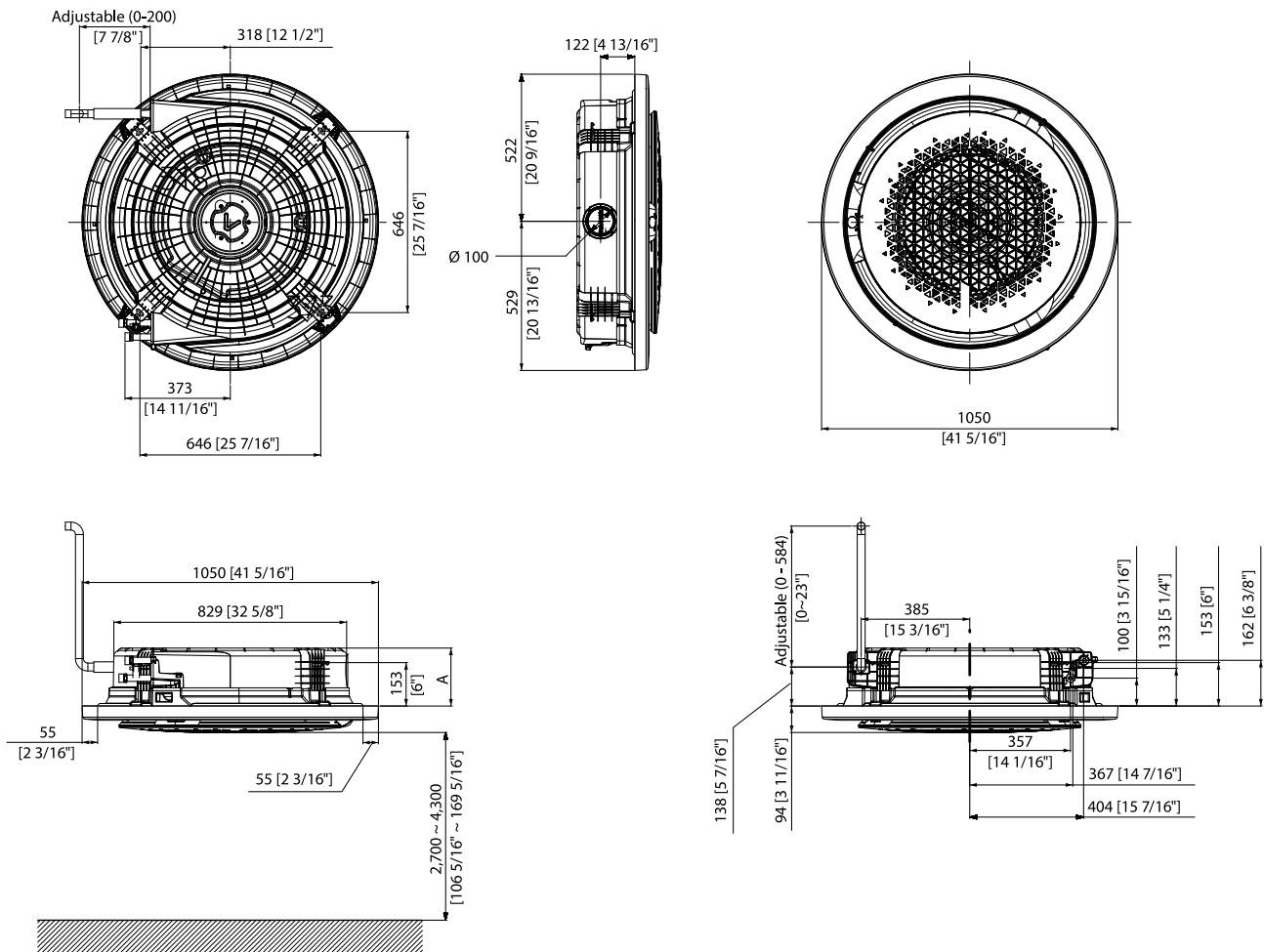


# Dimensional drawings

## 360 Cassette FCU

AG060/072/090/105MN4PKH/EU

Units: mm [inches]



Pos.	A Type	B Type
Model	AG060MN4PKH/EU	AG072MN4PKH/EU AG090MN4PKH/EU AG105MN4PKH/EU
A	205	289
Pipe connection		PF 3/4 Male
Drain pipe connection		VP25 (OD 32, ID 25)



# Specifications

## Concealed FCU

- Plug & play solution in combination with HVM Chiller.
- Optional vertical or horizontal installation.
- 3-Way valve kit included as standard.
- FCU kit included as standard.
- Optional drain pipe.
- Optional heating coil 4-pipe.
- Optional 3-way valve kit 4-pipe.
- Auxilary Drain Pan vertical/horizontal.



Model				ACL-18DF	ACL-25DF	ACL-35DF	
Power Supply		Φ, V, Hz		1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz	
Mode				HP	HP	HP	
Performance	Capacity (Nominal)	Cooling (H/M/L)	kW	1.91/1.66/1.34	2.87/2.34/1.73	4.24/3.20/2.47	
		Heating (H/M/L)	kW	2.15/1.81/1.50	2.91/2.35/1.73	4.24/3.24/2.47	
Power	Power Input (Nominal)	Cooling (H/M/L)	W	53/36/24	56/43/29	90/50/40	
		Heating (H/M/L)	W	53/36/24	56/43/29	90/50/40	
	Current Input (Nominal)	Cooling	A	0.26	0.28	0.45	
		Heating	A	0.26	0.28	0.45	
Heat Exchanger	Type			Fin & tube	Fin & tube	Fin & tube	
Fan	Type			Double suction centrifugal fan	Double suction centrifugal fan	Double suction centrifugal fan	
	Number of Fans	ea		2	2	2	
	Airflow Rate	H/M/L	m <sup>3</sup> /min	5.7/4.5/3.5	7.6/5.7/4.0	11.7/8.3/6.0	
Fan Motor	Type			3-step AC	3-step AC	3-step AC	
	Output x n	W		53/36/24	56/43/29	90/50/40	
Water	Water Flow Rate	Cooling	L/min	5.6	8.4	12.4	
		Heating	L/min	6.2	8.4	12.4	
	Pressure Drop	Cooling	kPa	17	24	35	
		Heating	kPa	20	24	35	
Piping Connections	Liquid Pipe (IN)	Type			Female	Female	Female
		Dimension	ø, mm (inch)	1/2	1/2	1/2	
	Liquid Pipe (OUT)	Type			Female	Female	Female
		Dimension	ø, mm (inch)	1/2	1/2	1/2	
	Heat Insulation			-	-	-	
Drain Pipe	ø, mm		-	-	-		
Sound	Sound Pressure	(H/M/L)	dB(A)	42/36/32	40/34/28	45/35/27	
	Sound Power	(H/M/L)	dB(A)	50/44/40	48/42/36	53/43/35	
Dimensions	Net Weight	kg		18.0	23.0	27.0	
	Net Dimensions (W × H × D)	mm		725 x 224 x 535	935 x 224 x 535	1,145 x 224 x 535	
Casing	Material			-	-	-	
Panel	Panel Model			-	-	-	
Additional Accessories	Drain Pump	Type	optional	ACL-ADP	ACL-ADP	ACL-ADP	
		Max. Lifting Height/Displacement	mm/(cc/min)	750/133	750/133	750/133	
	Heating Coil	4-pipe	optional	ACL-A018HC	ACL-A025HC	ACL-A035HC	
	3-Way Valve	4-pipe	optional	ACL-A018V3	ACL-A018V3	ACL-A018V3	
	Auxiliary Drain Pan	Vertical	optional	ACL-ADV	ACL-ADV	ACL-ADV	
		Horizontal	optional	ACL-ADH	ACL-ADH	ACL-ADH	
Filter			-	Polypropylene washable	Polypropylene washable	Polypropylene washable	

## Accessories



FCU Interface Module

MIM-F10N



FCU Kit

MIM-F00N



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Simple Type Controller

MWR-SH00N



ACL-55DF	ACL-65DF
1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz
HP	HP
7.19/5.69/4.32	7.78/6.07/4.00
7.19/5.69/4.32	8.37/6.53/4.39
182/127/86	244/169/109
182/127/86	244/169/109
0.90	1.20
0.90	1.20
Fin & tube	Fin & tube
Double suction centrifugal fan	Double suction centrifugal fan
3	3
16.8/12.8/9.5	23.2/17.0/10.7
3-step AC	3-step AC
182/127/86	244/169/109
21.1	22.9
20.2	24.2
39	42
35	47
Female	Female
3/4	3/4
Female	Female
3/4	3/4
-	-
-	-
53/46/39	59/52/41
61/54/47	67/60/49
37.0	37.0
1,355 x 249 x 535	1,355 x 249 x 535
-	-
-	-
ACL-ADP	ACL-ADP
750/133	750/133
ACL-A055HC	ACL-A055HC
ACL-A055V3	ACL-A055V3
ACL-ADV	ACL-ADV
ACL-ADH	ACL-ADH
Polypropylene washable	Polypropylene washable

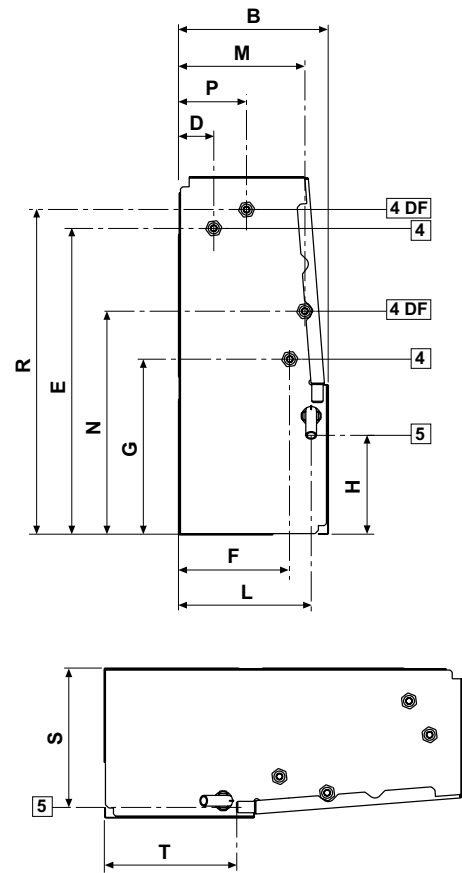
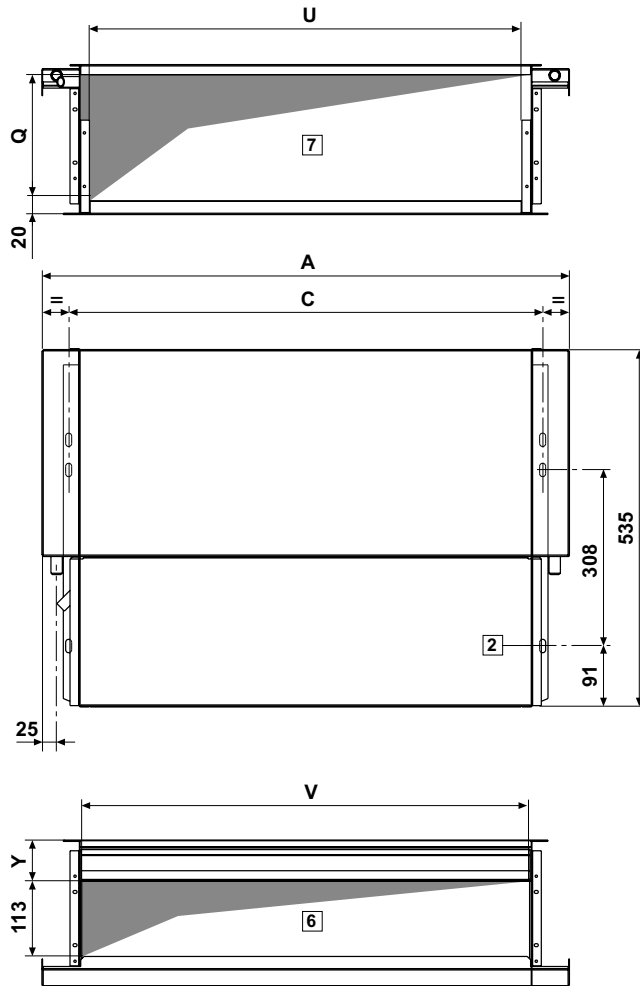
Cooling: Indoor temperature 27 °C DB, 19 °C WB/Water In/Out temperature 7 °C, 12 °C Heating: Indoor temperature 20 °C DB, 15 °C WB/Water In/Out temperature 45 °C, 40 °C. Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions. Specifications may be subject to change without prior notice. Select wire size based on the Minimum Circuit Ampacity (MCA) value.

# Dimensional drawings

## Concealed FCU

ACL-\*\*DF

Units: mm [inches]



NO	Name	Description
1	Water pipe connection out	PF Male 3/4 (20A)
2	Water pipe connection in	PF Male 3/4 (20A)
3	Air vent valve	
4	Drain hose	VP25 (OD 32, ID 25)
5	Power supply/communication wiring conduits	
6	Air discharge part	
7	Air suction part	

MODEL	A	B	C	H	L	S	T	Y
ACL-18DH	584	224	498	149	198	208	198	61
ACL-25DH	794	224	708	149	198	208	198	61
ACL-35DH	1004	224	918	149	198	208	198	61
ACL-55DH	1214	249	1128	155	220	234	208	67
ACL-65DH	1214	249	1128	155	220	234	208	67





# Specifications

## Cased FCU

- Plug & play solution in combination with HVM Chiller.
- Optional vertical or horizontal installation.
- 3-Way valve kit included as standard.
- FCU kit included as standard.
- Optional drain pipe.
- Optional heating coil 4-pipe.
- Optional 3-Way valve kit 4-pipe.
- Auxiliary Drain Pan vertical/horizontal.



Model				ACL-18DG	ACL-25DG	ACL-35DG
<b>Power Supply</b>			<b>Φ, V, Hz</b>	1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz	1Φ, 220-240 V, 50/60 Hz
<b>Mode</b>			-	HP	HP	HP
<b>Performance</b>	<b>Capacity (Nominal)</b>	<b>Cooling (H/M/L)</b>	<b>kW</b>	1.91/1.66/1.34	2.87/2.34/1.73	4.24/3.20/2.47
		<b>Heating (H/M/L)</b>	<b>kW</b>	2.15/1.81/1.50	2.91/2.35/1.73	4.24/3.24/2.47
<b>Power</b>	<b>Power Input (Nominal)</b>	<b>Cooling (H/M/L)</b>	<b>W</b>	53/36/24	56/43/29	90/50/40
		<b>Heating (H/M/L)</b>	<b>W</b>	53/36/24	56/43/29	90/50/40
	<b>Current Input (Nominal)</b>	<b>Cooling</b>	<b>A</b>	0.26	0.28	0.45
		<b>Heating</b>	<b>A</b>	0.26	0.28	0.45
<b>Heat Exchanger</b>	<b>Type</b>	-	-	Fin & tube	Fin & tube	Fin & tube
<b>Fan</b>	<b>Type</b>	-	-	Double suction centrifugal fan	Double suction centrifugal fan	Double suction centrifugal fan
	<b>Number of Fans</b>	-	-	2	2	2
	<b>Airflow Rate</b>	<b>H/M/L</b>	<b>m<sup>3</sup>/min</b>	5.7/4.5/3.5	7.6/5.7/4.0	11.7/8.3/6.0
<b>Fan Motor</b>	<b>Type</b>	-	-	3-step AC	3-step AC	3-step AC
	<b>Output x n</b>	-	-	53/36/24	56/43/29	90/50/40
<b>Water</b>	<b>Water Flow Rate</b>	<b>Cooling</b>	<b>l/min</b>	5.6	8.4	12.4
		<b>Heating</b>	<b>l/min</b>	6.2	8.4	12.4
	<b>Pressure Drop</b>	<b>Cooling</b>	<b>kPa</b>	17	24	35
		<b>Heating</b>	<b>kPa</b>	20	24	35
<b>Piping Connections</b>	<b>Liquid Pipe (IN)</b>	<b>Type</b>	-	Female	Female	Female
		<b>Dimension</b>	<b>ø, mm (inch)</b>	1/2	1/2	1/2
	<b>Liquid Pipe (OUT)</b>	<b>Type</b>	-	Female	Female	Female
		<b>Dimension</b>	<b>ø, mm (inch)</b>	1/2	1/2	1/2
	<b>Heat Insulation</b>	-	-	-	-	-
	<b>Drain Pipe</b>	<b>ø, mm</b>	-	-	-	-
<b>Sound</b>	<b>Sound Pressure</b>	<b>(H/M/L)</b>	<b>dB(A)</b>	42/36/32	40/34/28	45/35/27
	<b>Sound Power</b>	<b>(H/M/L)</b>	<b>dB(A)</b>	50/44/40	48/42/36	53/43/35
<b>Dimensions</b>	<b>Net Weight</b>	-	<b>kg</b>	22.0	29.0	35.0
	<b>Net Dimensions (W x H x D)</b>	-	<b>mm</b>	774x564x226	984x564x226	1,194x564x226
<b>Casing</b>	<b>Material</b>	-	-	-	-	-
<b>Panel</b>	<b>Panel Model</b>	-	-	-	-	-
<b>Additional Accessories</b>	<b>Drain Pump</b>	<b>Type</b>	<b>optional</b>	ACL-ADP	ACL-ADP	ACL-ADP
		<b>Max. Lifting Height/Displacement</b>	<b>mm / (cc/min)</b>	750/133	750/133	750/133
	<b>Heating Coil</b>	<b>4-pipe</b>	<b>optional</b>	ACL-A018HC	ACL-A025HC	ACL-A035HC
	<b>3-Way Valve</b>	<b>4-pipe</b>	<b>optional</b>	ACL-A018V3	ACL-A018V3	ACL-A018V3
	<b>Auxiliary Drain Pan</b>	<b>Vertical</b>	<b>optional</b>	ACL-ADV	ACL-ADV	ACL-ADV
	<b>Auxiliary Drain Pan</b>	<b>Horizontal</b>	<b>optional</b>	ACL-ADH	ACL-ADH	ACL-ADH
	<b>Filter</b>	-	-	Polypropylene washable	Polypropylene washable	Polypropylene washable

## Accessories



FCU Interface Module

MIM-F10N



FCU Kit

MIM-F00N



Touch Controller

MWR-SH11N



Wired Remote Controller

MWR-WG00\*N



Simple Type Controller

MWR-SH00N



ACL-55DG	ACL-65DG
1Φ, 220~240 V, 50/60 Hz	1Φ, 220~240 V, 50/60 Hz
HP	HP
719/5.69/4.32	778/6.07/4.00
719/5.69/4.32	8.37/6.53/4.39
182/127/86	244/169/109
182/127/86	244/169/109
0.90	1.20
0.90	1.20
Fin & tube	Fin & tube
Double suction centrifugal fan	Double suction centrifugal fan
3	3
16.8/12.8/9.5	23.2/17.0/10.7
3-step AC	3-step AC
182/127/86	244/169/109
21.1	22.9
20.2	24.2
39	42
35	47
Female	Female
3/4	3/4
Female	Female
3/4	3/4
-	-
-	-
53/46/39	59/52/41
61/54/47	67/60/49
45.0	45.0
1,404x564x251	1,404x564x251
-	-
-	-
ACL-ADP	ACL-ADP
750/133	750/133
ACL-A055HC	ACL-A055HC
ACL-A055V3	ACL-A055V3
ACL-ADV	ACL-ADV
ACL-ADH	ACL-ADH
Polypropylene washable	Polypropylene washable

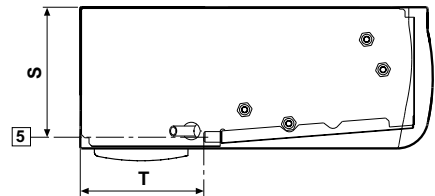
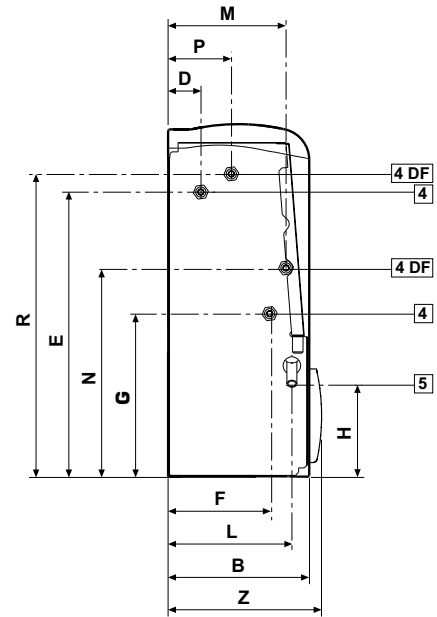
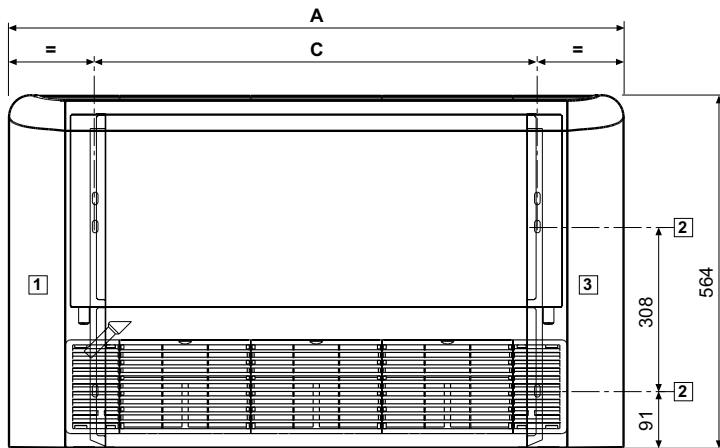
Cooling: Indoor temperature 27 °C DB, 19 °C WB/Water In/Out temperature 7 °C, 12 °C Heating: Indoor temperature 20 °C DB, 15 °C WB/Water In/Out temperature 45 °C, 40 °C.  
 Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.  
 Specifications may be subject to change without prior notice.  
 Select wire size based on the Minimum Circuit Ampacity (MCA) value.

# Dimensional drawings

## Cased FCU

ACL-\*\*DG

Units: mm [inches]



NO	Name	Description
1	Water pipe connection out	PF Male 3/4 (20A)
2	Water pipe connection in	PF Male 3/4 (20A)
3	Air vent valve	
4	Drain hose	VP25 (OD 32, ID 25)
5	Power supply/communication wiring conduits	
6	Air discharge part	
7	Air suction part	

MODEL	A	B	C	H	L	S	T	Z
ACL-18DG	774	226	498	149	198	208	198	246
ACL-25DG	984	226	708	149	198	208	198	246
ACL-35DG	1194	226	918	149	198	208	198	246
ACL-55DG	1404	251	1128	155	220	234	208	271
ACL-65DG	1404	251	1128	155	220	234	208	271





A modern office interior with exposed ductwork and large windows. The room features a concrete ceiling with large, silver, corrugated metal ducts running horizontally. A large window with a black frame looks out onto a city street. In the foreground, there is a brown leather sofa, a coffee table with a laptop and a potted plant, and a dining table with yellow and white chairs. The walls are a mix of brick and concrete.

# Ventilation (ERV)







# Specifications

## ERV

- Energy recovery ventilation unit.
- Cellulose heat exchanger element.
- High Efficiency (F7 class) air filter.
- Optional CO<sub>2</sub> sensor for automatic regulation.
- Bypass operation mode when there's a small temperature difference between indoor and outdoor environment (automatically or manually operated).
- Interlocking with DVM S indoor units.
- Frost formation prevention without electric heater.



Model				AN026JSKLN/EU	AN035JSKLN/EU	AN050JSKLN/EU	AN080JSKLN/EU	AN100JSKLN/EU	
<b>Power Supply</b>			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	1Φ, 2, 220-240 V, 50/60 Hz	
<b>Performance</b>	<b>Air Volume</b>		m <sup>3</sup> /h	260	350	500	800	1,000	
	<b>Temperature Exchange Efficiency</b>	<b>Cooling</b>	<b>Turbo/High/Low</b>	%	70/70/74	70/70/74	70/70/74	70/70/74	70/70/74
		<b>Heating</b>	<b>Turbo/High/Low</b>	%	74/74/75	78/78/79	74/74/75	77/77/78	74/74/75
	<b>Effective Enthalpy Exchange Efficiency</b>	<b>Cooling</b>	<b>Turbo/High/Low</b>	%	50/50/55	50/50/55	50/50/55	50/50/55	50/50/55
<b>Heating</b>		<b>Turbo/High/Low</b>	%	70/70/76	70/70/76	70/70/76	70/70/76	70/70/76	
<b>Power</b>	<b>Power Input</b>	<b>Turbo/High/Low</b>	W	115/80/45	115/80/50	175/120/65	330/230/125	450/280/155	
	<b>Current Input</b>	<b>Turbo</b>	A	0.7	0.7	1.1	2.1	2.9	
<b>Fan</b>	<b>Airflow Rate</b>	<b>Turbo/High/Low</b>	m <sup>3</sup> /h	260/250/180	350/350/256	500/500/360	800/800/560	1,000/1,000/690	
	<b>External Static Pressure</b>	<b>Turbo/High/Low</b>	Pa	100/65/55	155/100/83	165/100/85	155/90/80	155/90/75	
<b>Noise Level</b>	<b>Sound Pressure<sup>1</sup></b>	<b>Turbo/High/Low/ Quiet</b>	dB(A)	31/28/25/22	32/29/26/23	35/32/28/24	36/33/29/25	37/34/30/26	
	<b>Sound Power</b>		dB(A)	49	50	53	54	55	
<b>Field Wiring</b>	<b>Power Source Wire</b>		mm <sup>2</sup>	1.5-2.5	1.5-2.5	1.5-2.5	1.5-2.5	1.5-2.5	
	<b>Transmission Cable</b>		mm <sup>2</sup>	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50	0.75-1.50	
<b>Dimensions</b>	<b>Net Weight</b>		kg	28.5	42.5	42.5	67.0	67.0	
	<b>Net Dimensions (W x H x D)</b>		mm	600 x 350 x 660	1,012 x 270 x 1,000	1,012 x 270 x 1,000	1,2220 x 340 x 1,135	1,2220 x 340 x 1,135	
	<b>Supply/Return/Exhaust/Outside Duct Flange (ø)</b>		mm	150	200	200	250	250	
<b>Air Filter</b>			-	Pre filter	Pre filter	Pre filter	Pre filter	Pre filter	

## Accessories



Differential pressure switch<sup>2</sup>

MOS-P1050



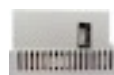
ERV Wired Remote Controller

MWR-VH12N



Wired Remote Controller

MWR-WG00\*N



CO<sub>2</sub> Sensor

MOS-C1

<sup>1</sup> Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

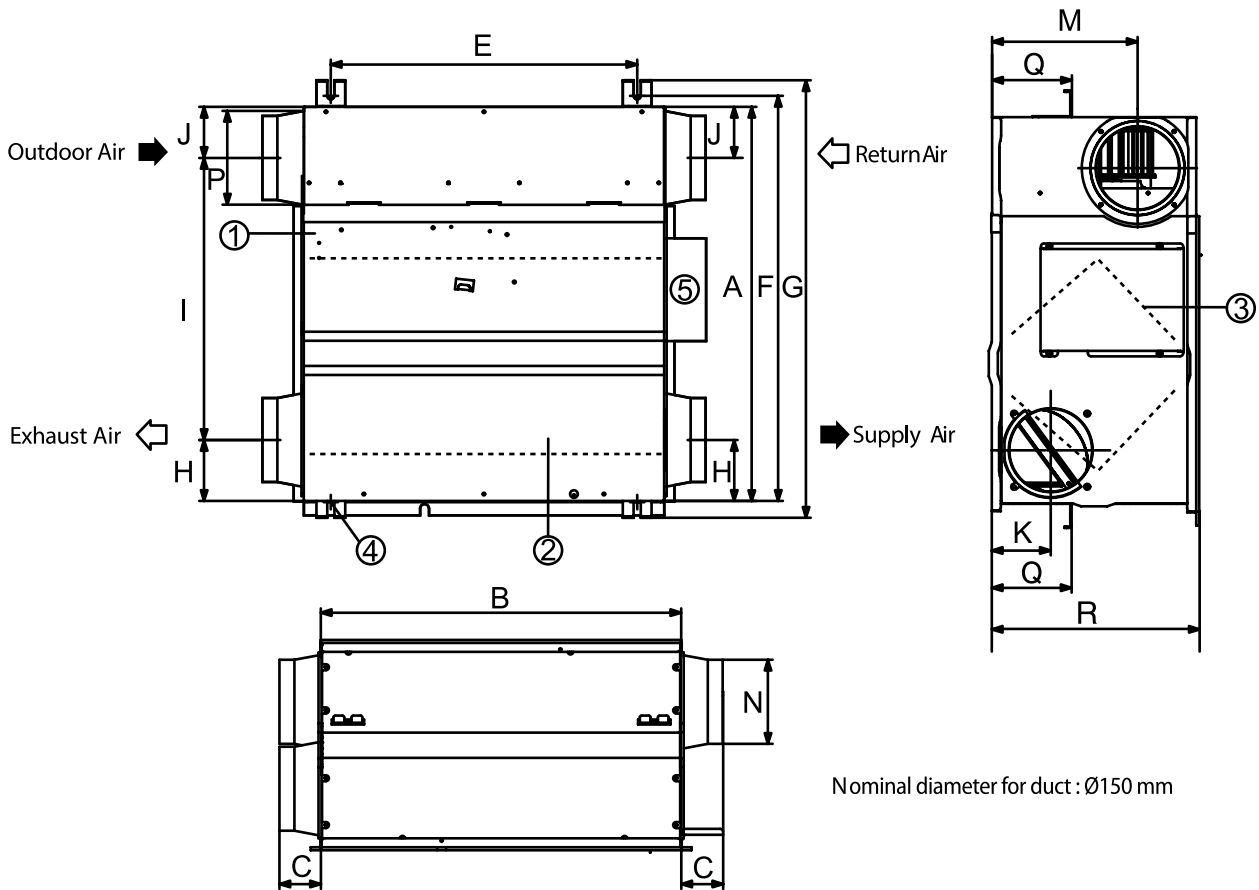
<sup>2</sup> Please order MOS-P1050 separately. Differential pressure switch (model code: MOS-P1050) is a mandatory accessory for all ERV and ERV Plus units in EU countries according to Ecodesign Directive 1253/2014.

# Dimensional drawings

## ERV

AN026JSKLN/EU

Units: mm [inches]



NO	Name	Description
1	Maintenance cover	1
2	Heat exchange element	1
3	Dust filter	2
4	Hanger	4
5	Electrical component box	1

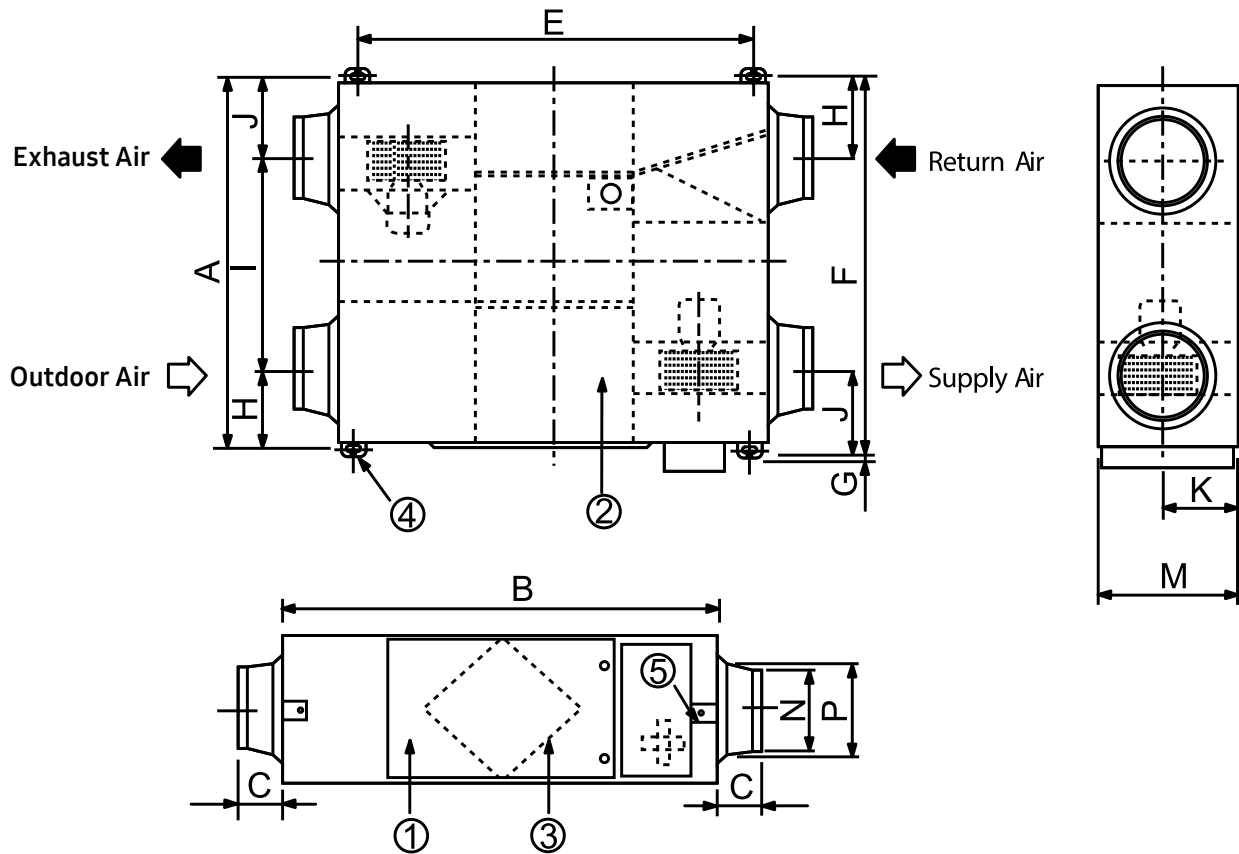
Model	A	B	C	E	F	G	H	I	J	K	M	N	P	Q	R
Length (mm)											Diameter (mm)		Length (mm)		
026	600	660	70	510	675	729	102	470	85	98	242	140	156	133	350

# Dimensional drawings

## ERV

035/050 - 080/100

Units: mm [inches]



NO	Name	Description
1	Maintenance cover	1
2	Heat exchange element	2
3	Dust filter	4
4	Hanger	4
5	Electrical component box	1

Model	Nominal diameter for duct (mm)
035/050	200
080/100	250

Model	A	B	C	E	F	G	H	I	J	K	M	N	P	Q	R	
Length (mm)											Diameter (mm)		Length (mm)			
035/050	1,000.00	1,012.00	99.00	940.60	1,036.40	26.00	130.00	617.00	253.00	135.00	270.00	194.00	241.50	133.00	350.00	
080/100	1,135.00	1,220.00	84.00	1,110.00	1,183.00	25.00	184.00	613.25	387.75	170.00	340.00	244.00	270.00			



# Specifications

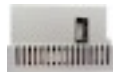
## ERV Plus for DVM S

- Energy recovery ventilation unit with built-in direct expansion coil.
- Cellulose heat exchanger element.
- High Efficiency (F7 class) air filter.
- Two centrifugal fans direct driven by electric BLDC motor.
- Optional CO<sub>2</sub> sensor for automatic regulation.
- Bypass operation mode when there's a small temperature difference between indoor and outdoor environment (automatically or manually operated).
- Frost formation prevention without electric heater.
- Auto Restart function.



Model				AM050FNKDEH/EU	AM100FNKDEH/EU	
<b>Power Supply</b>			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	
<b>Performance</b>	<b>Temp. Exchange Efficiency</b>	Cooling	Turbo/High/Low	%	70/70/74	70/70/74
		Heating	Turbo/High/Low	%	75/75/79	75/75/79
	<b>Effective Enthalpy Exchange Efficiency</b>	Cooling	Turbo/High/Low	%	60/60/66	62/62/68
		Heating	Turbo/High/Low	%	73/73/79	75/75/81
<b>Outside Air Processing Capacity</b>	Cooling (DX Coil/Element)		-	5.1 (3.6/1.5)	10.5 (7.1/3.4)	
	Heating (DX Coil/Element)		-	6.5 (4.0/2.5)	13.2 (8.0/5.2)	
<b>Fan</b>	<b>Airflow Rate</b>	Turbo/High/Low (UL)	m <sub>3</sub> /hr	500/500/360	1,000/1,000/690	
			l/s	138.9/138.9/100.0	277.8/277.8/191.7	
	<b>External Static Pressure</b>	Turbo/High/Low	mmAq	16.30/10.20/8.70	15.30/9.20/7.60	
			Pa	160.00/100.00/85.00	150.00/90.00/75.00	
			Motor	Type	-	BLDC
		Output	W	60	70	
	Quantity	ea	2	2		
<b>Power</b>	<b>Power Input</b>	Turbo/High/Low	W	220/140/90	510/350/235	
	<b>Current Input</b>	Turbo/High/Low	A	1.7/1.0/0.6	3.7/2.4/1.6	
<b>Piping Connections</b>	<b>Liquid Pipe</b>	ø, mm	6.35	6.35		
		ø, inch	1/4	1/4		
	<b>Gas Pipe</b>	ø, mm	12.70	12.70		
		ø, inch	1/2	1/2		
	<b>Drain Pipe</b>	ø, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)		
		ø, inch	VP25 (OD 1-1/4", ID 1")	VP25 (OD 1-1/4", ID 1")		
	<b>Water Supply</b>	ø, mm	12.70	12.70		
		ø, inch	1/2	1/2		
<b>Field Wiring</b>	<b>Power Source Wire</b>	mm <sup>2</sup>	1.5/2.5	1.5/2.5		
	<b>Transmission Cable</b>	mm <sup>2</sup>	0.75-1.50	0.75-1.50		
<b>Refrigerant</b>	<b>Type</b>	-	R410A (Fluorinated greenhouse gas, GWP=2,088)			
	<b>Control Method</b>	-	EEV	EEV		
<b>Sound</b>	<b>Sound Pressure<sup>1</sup></b>	Turbo/High/Low	dB(A)	36/32/28	36/33/31	
	<b>Sound Power</b>		dB(A)	67	67	
<b>Dimensions</b>	<b>Net Weight</b>		kg	61.0	90.0	
	<b>Net Dimensions (W x H x D)</b>		mm	1,553 x 270 x 1,000	1,763 x 340 x 1,135	
	<b>Supply/Return/Exhaust/Outside Duct Flange (ø)</b>		mm	200	250	
<b>Ambient Conditions</b>	<b>Around Unit</b>		-	0-40 °C DB, 80 % RH or less	0-40 °C DB, 80 % RH or less	
	<b>Outdoor Air</b>		-	-15-40 °C DB, 80 % RH or less	-15-40 °C DB, 80 % RH or less	
	<b>Return Air</b>		-	0-40 °C DB, 80 % RH or less	0-40 °C DB, 80 % RH or less	
<b>Air Filter</b>			-	Pre filter	Pre filter	

## Accessories



Differential pressure switch<sup>2</sup>

Wired Remote Controller

CO<sub>2</sub> Sensor

MOS-P1050

MWR-WG00\*N

MOS-C1

<sup>1</sup> Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

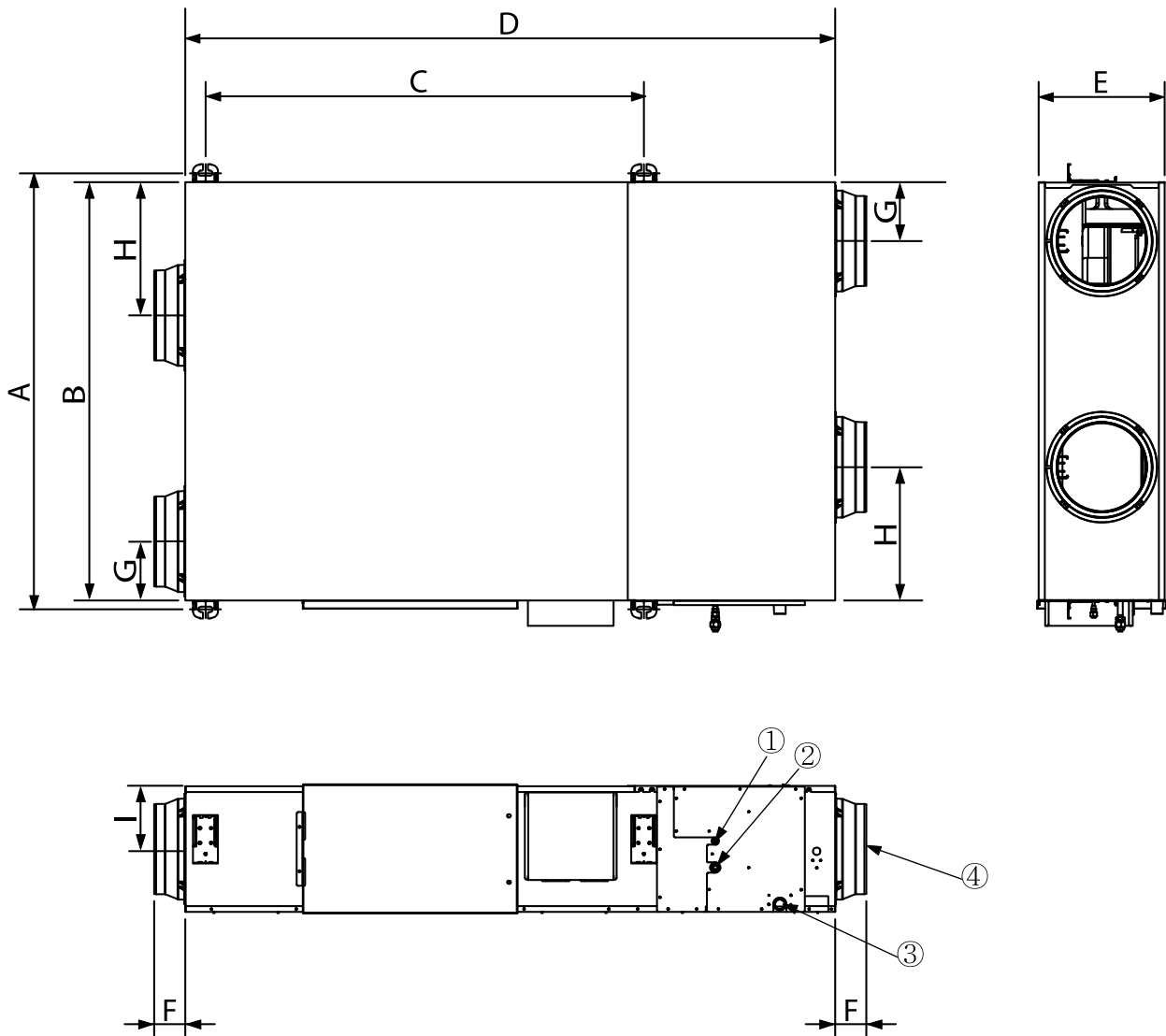
<sup>2</sup> Please order MOS-P1050 separately. Differential pressure switch (model code: MOS-Pa) is a mandatory accessory for all ERV and ERV Plus units in EU countries according to Ecodesign Directive 1253/2014.

# Dimensional drawings

## ERV Plus for DVM S

AM\*\*\*FNKDEH/EU

Units: mm [inches]



NO	Name	Description	
		AM050FNKDEH	AM100FNKDEH
1	Liquid pipe connection		ø6.35 Flare
2	Gas pipe connection		ø12.70 Flare
3	Drain pipe connection		VP25 (OD 32, ID 25)
4	Nominal diameter for duct	ø200	ø250

Model	A	B	C	D	E	F	G	H	I
RHF050KHEA	1,036	1,000	987	1,553	270	99	130	253	135
RHF100KHEA	1,183	1,135	1,189	1,763	340	84	160	362	170



# Specifications

## OAP Duct for DVM S

- 100% outdoor air unit.
- Equipped with two Sirocco fans direct driven by a single motor.
- Only discharge temperature control.
- No limitation in OAP Duct quantity for one system.
- Auto ESP function: the fan speed is adjustable according to ductwork external static pressure.
- Can be combined with other DVM indoor units to form one system.



Model				AM140MNEPEH/EU	AM220MNEPEH/EU	AM280MNEPEH/EU
Power Supply			Φ, #, V, Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz	1Φ, 2, 220-240 V, 50 Hz
Performance	Capacity (Nominal)	Cooling	kW	14.0	22.4	28.0
		Heating	kW	8.9	13.9	17.4
Power	Power Input (Nominal)	Cooling	W	300	450	600
		Heating	W	300	450	600
	Current Input (Nominal)	Cooling	A	2.2	3.5	4.6
		Heating	A	2.2	3.5	4.6
Heat Exchanger	Type		-	Fin & tube	Fin & tube	Fin & tube
	Material	Fin		Al	Al	Al
		Tube			Cu	Cu
Fan	Motor	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
		Output x n	W	183 x 1	630 x 1	630 x 1
		Number of Fans	ea	2	2	2
	Airflow Rate	H/M/L	m <sup>3</sup> /min	18	28	35
			L/s	300.0	466.7	583.3
	External Pressure	Min/Std/Max	mmAq		15.30/20.40/25.50	18.40/23.40/29.60
Pa				150.00/200.00/250.00	180.00/230.00/290.00	200.00/250.00/300.00
Piping Connections	Liquid Pipe	ø, mm		9.52	9.52	9.52
		ø, inch		3/8	3/8	3/8
	Gas Pipe	ø, mm		15.88	19.05	22.22
		ø, inch		5/8	3/4	7/8
	Drain Pipe	ø, mm		VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
	Field Wiring	Transmission Cable	Min.	mm <sup>2</sup>	0.75	0.75
Refrigerant	Type		-	R410A(Fluorinated greenhouse gas, GWP=2,088)		
	Control Method		-	EEV (INCLUDED)	EEV (INCLUDED)	EEV (INCLUDED)
Noise Level	Sound Pressure <sup>1</sup>	H/M/L	dB(A)	42	46	47
	Sound Power	Cooling	dB(A)	65	66	69
Dimensions	Net Weight		kg	49.0	81.5	81.5
	Net Dimensions (W x H x D)		mm	1 210 x 370 x 656	1,360 x 460 x 910	1,360 x 460 x 910
Additional Accessories	Drain Pump	Drain Pump	-	MDP-M075SGU2D	MDP-G075SP	MDP-G075SP
		Max. Lifting Height/ Displacement	mm / litres/h	750/24	750/24	750/24

## Accessories



Wireless Remote Controller

Touch Controller

Wired Remote Controller

Wi-Fi Kit

Wireless Receiver Kit

AR-EH03E  
(to be matched with MRK-A10N)

MWR-SH11N

MWR-WG00\*N

MIM-H04EN

MRK-A10N  
(to be matched with AR-EH03E)

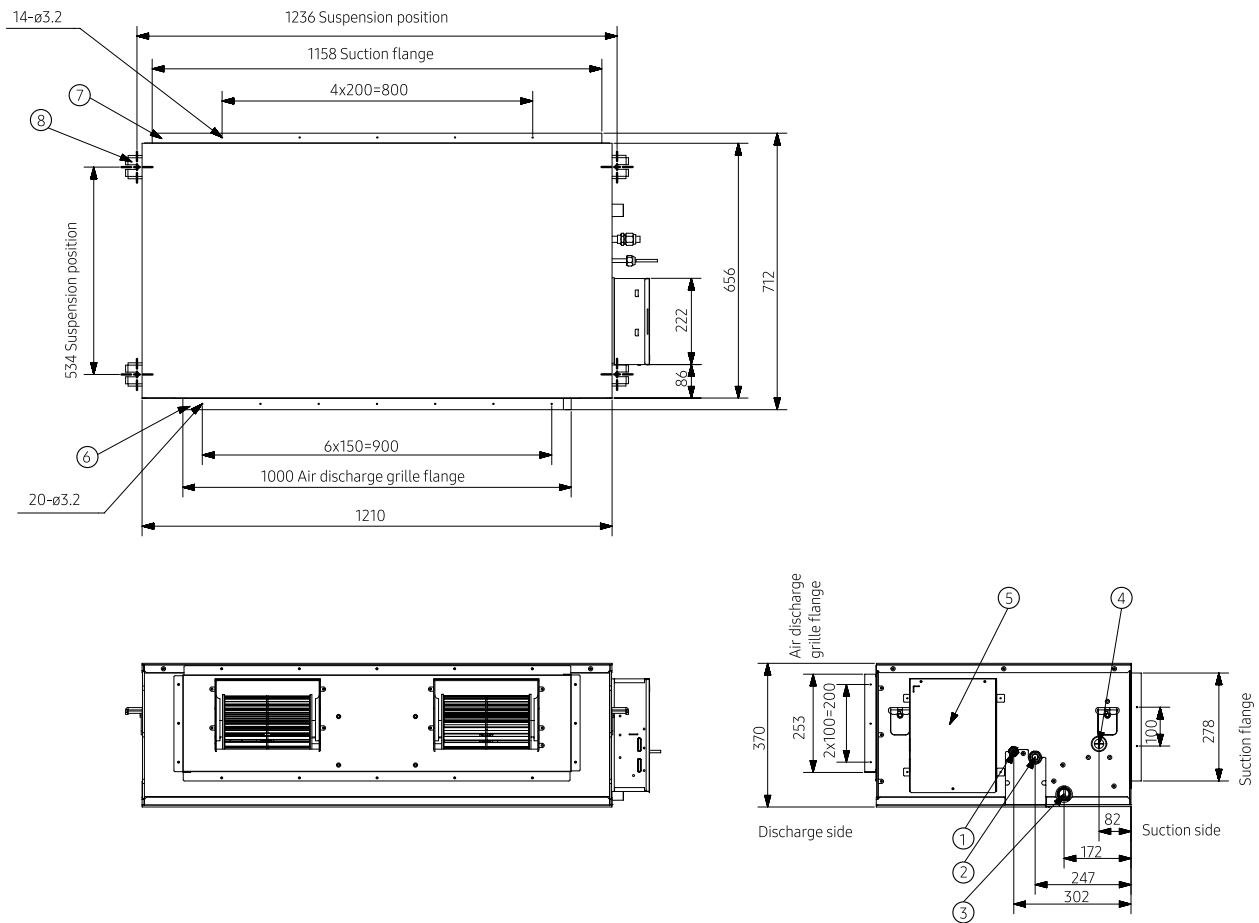
<sup>1</sup> Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

# Dimensional drawings

## OAP Duct for DVM S

AM140MNEP\*H

Units: mm [inches]



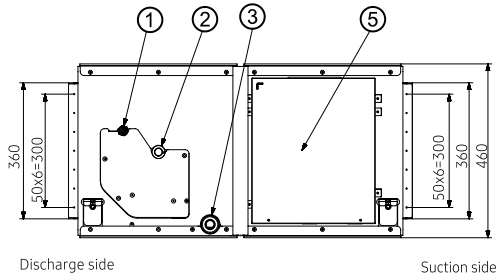
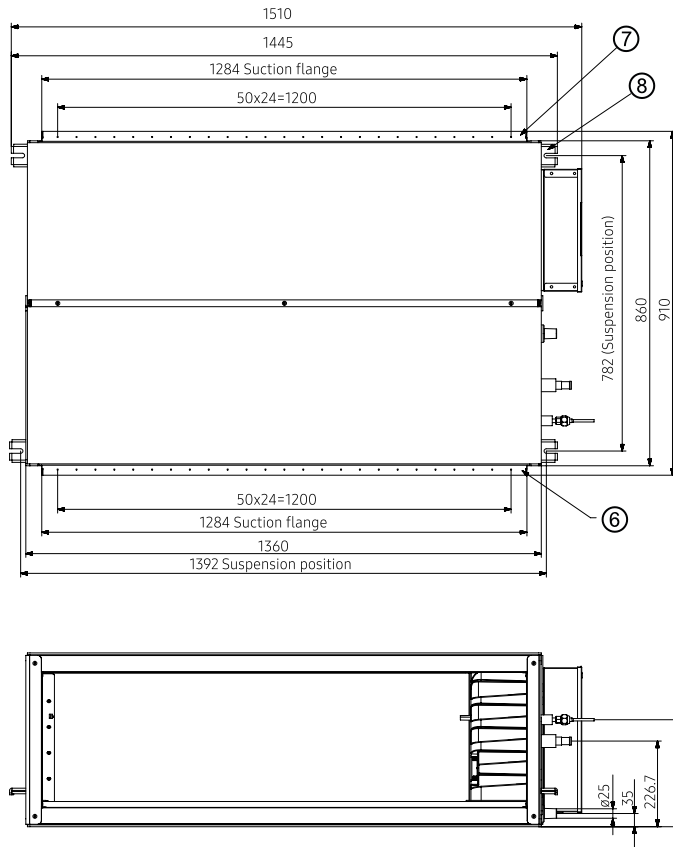
NO	Name	Description
1	Diameter of liquid pipe	ø9.52
2	Diameter of air pipe	ø15.88
3	Diameter of drain pipe	OD ø25, ID ø20
4	Diameter of drain pipe (Optional drain pump)	OD ø25, ID ø20
5	Power supply/Communication wiring conduit	
6	Air discharge grille flange	
7	Suction flange	
8	Hook	ø9.52 or M10

# Dimensional drawings

## OAP Duct for DVM S

AM140MNEP\*H

Units: mm [inches]



NO	Name	Description
1	Diameter of liquid pipe	$\varnothing 9.52$
2	Diameter of air pipe	$\varnothing 15.88$
3	Diameter of drain pipe	OD $\varnothing 25$ , ID $\varnothing 20$
4	Diameter of drain pipe (Optional drain pump)	OD $\varnothing 25$ , ID $\varnothing 20$
5	Power supply/Communication wiring conduit	
6	Air discharge grille flange	
7	Suction flange	
8	Hook	$\varnothing 9.52$ or M10



# Controls









System Air Conditioner

# Touch Centralized Controller 2.0

A 253.5mm LCD display with touch controls eliminates the physical buttons from the front. Its minimalist design, which is fully covered in glass with a narrow metallic frame, means it simply blends with any interior style while improving usability.

## Operation Summary

Quickly monitor the number of devices in operation or to be serviced at a glance.



## Scheduling

Simply set the operation schedules of multiple devices - all at once or individually.



## Energy Usage Monitor

Efficiently manage energy use by visually comparing the real-time consumption with the previous periods\*.



I Detailed view of energy consumption\*\*

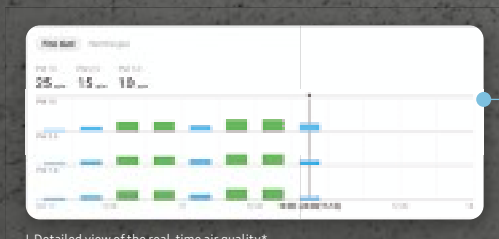
\* By day, week, month and year.

\*\* Available in 2024.

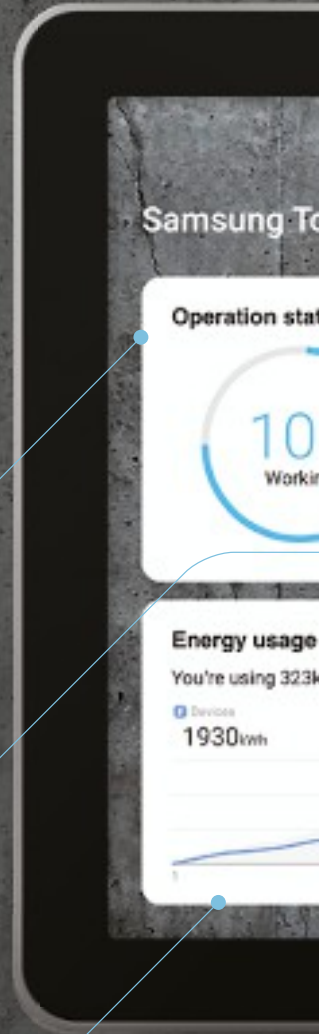
\*\*\* The information provided includes estimated figures intended solely for illustrative and indicative purposes. Actual consumption depends on various factors and other usage conditions.

## Air Quality Monitor

Check the real-time air quality of each room in your workplace at a glance.



I Detailed view of the real-time air quality\*

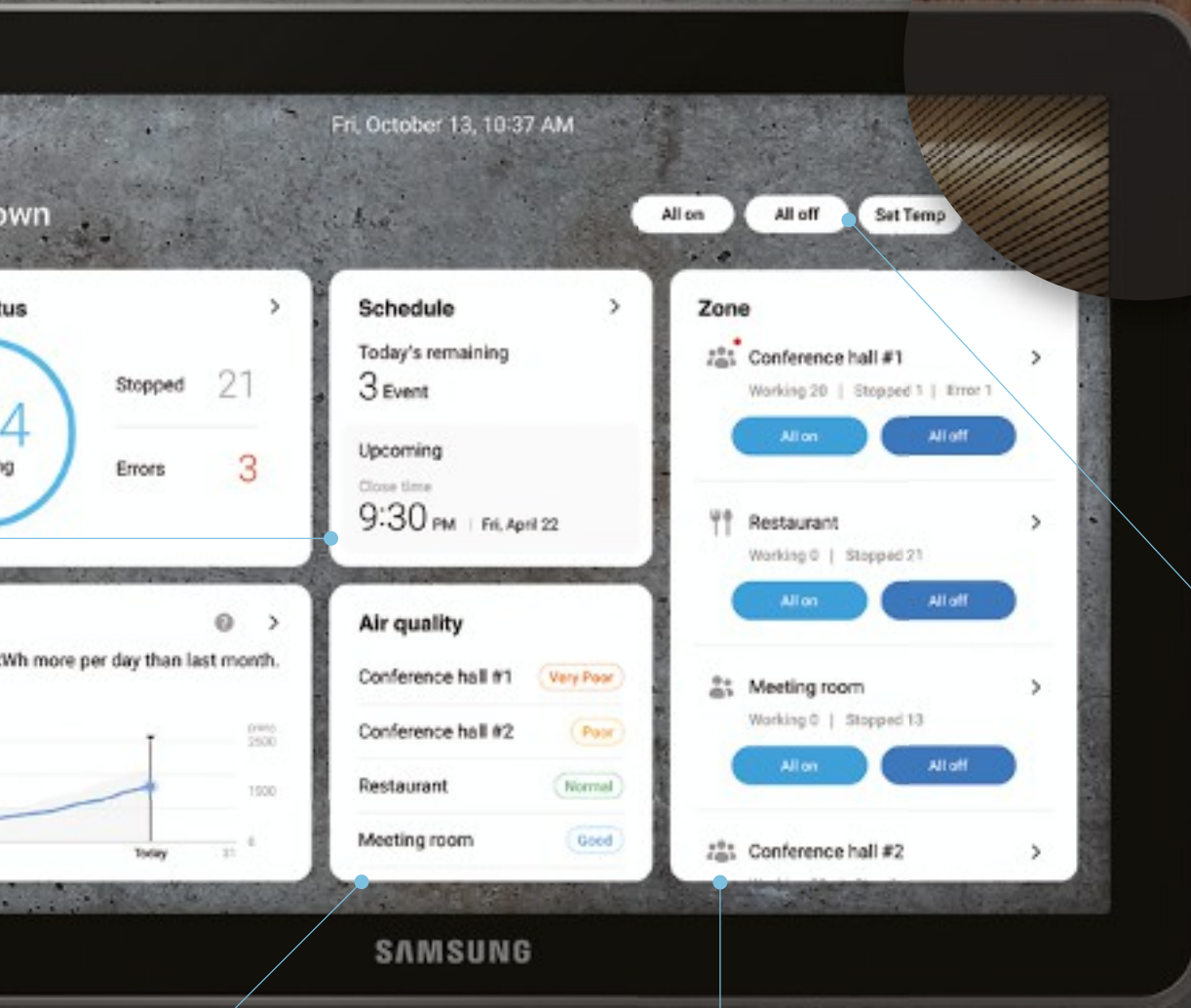




# Customizable to harmoniously blend into your space

The cover screen and home screen can be easily customized as you want. Simply select your favorite wallpaper from the gallery or upload your own one\* to suit your taste and interior style.

\* Only PNG, GIF and JPG format images with a file size of less than 10MB are supported.



## Zone Control

Set zones, based on the location, usage and operating time, to efficiently monitor and control devices simultaneously.



## Multi-device Control

Control all devices at once, including power on/off, modes and temperatures.



\* The screen image is for illustrative purposes only and may differ from the actual user interface on your controller based on the OS version and actual usage situation.

\* The above product image has the same dimensions as the actual product.

\* Available in 2024. Only available when using certain indoor units that have an Air Quality Sensor.

## Intuitive Control

### SmartThings Style UI

With a simplified layout and icons, you can easily monitor and control the entire system from one spot. If you are familiar with SmartThings then you will intuitively know how to use it.

- Consistent user experience across Samsung appliances, based on SmartThings and One UI
- High Visibility with a simple layout and icons
- 2D Layout view\*

\* Available in 2024.



## Efficient Management

### Dashboard on the Home Screen

Intuitively check the current status and easily control everything in your workplace. From scheduling to the MDS\*, you can automate the performance of the air conditioning to optimize your comfort and energy savings.

- One-stop scheduling on multiple devices and zones
- Quick access to the settings for the MDS\*
- Electric Current Control\*\* for balancing the energy load

\* MDS: Motion Detection Sensor.  
\*\* Available in 2024.

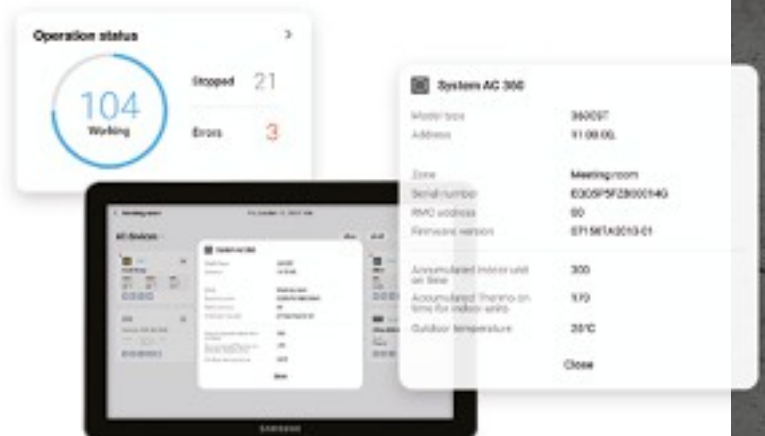


## Effortless Service

### Service History

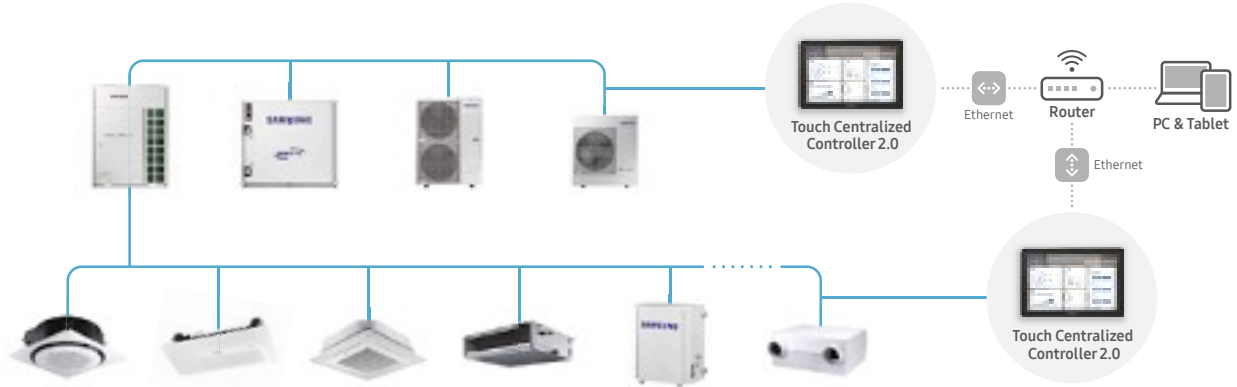
Get a real-time notification when an error occurs, and view the history of any troubleshooting at a glance. Based on the accumulated data, errors can be quickly addressed and solved.

- Real-time notification of errors
- Troubleshooting history management of up to 1 year





# System Configuration



\* Please contact your installer or sales expert of Samsung Air Conditioner to connect to ventilation systems (\* shown above), including the Samsung ERV and ERV Plus.  
 \* Ethernet connectivity will be available in 2024.  
 \* The number of devices (indoor and outdoor units) that can be connected will differ based on the location of the controller's connection ports.

# Specifications









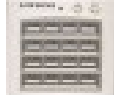



- Dimensions (WxHxD in mm) 245.7 x 164.5 x 30.9
- Display Size (WxH in mm) 215.2 x 134 (253.5mm TFT LCD)
- Display Resolution (WxH in px) 1,280 x 800



Model Name		MCM-A300BN*	
Connection	Indoor Units	Up to 128	
Layer	Set (F1/F2)	∅	
	Control (R1/R2)	∅	
Hardware	Power Supply	DC 12V (Adapter: AC 100-240V, 50/60Hz)	
	Memory	RAM	3 GB
		Flash	16 GB
	External Port	DI/DO	2 EA / 2 EA
		SD Card Slot	Micro SD 1 EA
		RJ45 (LAN)	1 EA (1 Gbps)
		RS485 (NASA)	Quantity
	F1, F2 Wiring	1 Outdoor Unit per Port / Up to 64 Indoor Units per Port	
	R1, R2 Wiring	Up to 16 Outdoor Units per Port (including Module) / Up to 128 Indoor Units per Port (Port 1 + Port 2)	
Software (Function)	Energy Saving	∅	
	Power Consumption	∅	
	Air Quality	∅	
Expandable Device	In-site (Connection with Local Network)	PC/Tablet	
	Supported Browser (PC/Tablet)	Web (Chrome)	

\* Some features (including 2D Layout View, Trend Data (Back-up), Energy Saving, Expandable Device) will be available in 2024.  
 \* Features and specifications are subject to change without notice for the improvement of performance.

























# Line-up

Product	Model	Image	Matchable Products	
Individual Control System	Wireless Remote Controller	AR-EH03M AR-EH03E AR-EH04E		FJM, CAC, DVM, FCU *only for FCU 1-Way/4-Way Cassette
	Wireless Remote Controller	AR-KH03E AR-KH04E		CAC, DVM, FCU *only for 360 Cassette
	Wired Remote Controller	MWR-WG00JN MWR-WG00KN		FJM, CAC, DVM, ERV, FCU
	Wired Remote Controller	MWR-WW00N MWR-WW10N MWR-WW10JN MWR-WW10KN		DVM *only for Hydro unit
	Simple Type Controller	MWR-SH00N		CAC, DVM, FCU
	Touch Type Controller	MWR-SH11N		CAC, DVM, FCU (with WindFree™ function)
	ERV Wired Remote Controller	MWR-VH12N		ERV
	Wireless Receiver Kit	MRK-A10N		CAC, DVM *only for duct models
Centralised Control System	ON/OFF Controller	MCM-A202DN		FJM, CAC, DVM, ERV Plus, HVM Chiller
	Touch Centralised Controller 2.0	MCM-A300BN		FJM, CAC, DVM, ERV Plus, HVM Chiller
	Wi-Fi Kit	MIM-H04EN		All (except HVM Chiller & 3rd party FCU)
	Module Controller	MCM-A00N		HVM Chiller

Product	Model	Image	Matchable Products
Integrated Management System	DMS2.5	MIM-D01AN	FJM, CAC, DVM, ERV Plus, HVM Chiller
	S-NET3	MST-P3P	
	bIoT Lite Software	MST-BL1A	
Gateway & Interface	BACnet Gateway	MIM-B17BN	FJM, CAC, DVM, ERV Plus, HVM Chiller
	LonWorks Gateway	MIM-B18BN	FJM, CAC, DVM, ERV Plus, HVM Chiller
	External Contact Interface Module	MIM-B14 (KEY TAG) MIM-B14A (LEAK DETECTION)	RAC, FJM, CAC, DVM, HVM Chiller
	PIM (Pulse Interface Module)	MIM-B16N	FJM, CAC, DVM, ERV Plus, HVM Chiller
	MODBUS Gateway	MIM-B19N	FJM, CAC, DVM, ERV Plus, HVM Chiller
	Interface Module (Converter RS485 to NASA)	MIM-N01	FJM, CAC
	ERV Interface Module (Converter RS485 to NASA)	MIM-N10	ERV
	FCU Kit	MIM-F00N	Concealed & Cased FCU
	FCU Interface Module	MIM-F10N	FCU
Installation/ Test Run Solution	S-Converter	MIM-C02N	
Others	External Room Sensor	MRW-TA	FJM, CAC, DVM
	Operation Mode Selection Switch	MCM-C200	
	MTFC (Multi-Tenant Function Controller)	MCM-C210N	



# Compatibility guide

Classification	Product	Model	Image	Compatibility		
				DVM	HVM Chiller	FCU1W/4W/360
Individual Control System	Wireless Remote Controller	AR-EH03E		•		•
	Wireless Remote Controller (360 Cassette only)	AR-KH03E		•		•
	Wired Remote Controller	MWR-WG00JN MWR-WG00KN		•		•
		MWR-WW00N MWR-WW10*N (DVM Hydro)		•		
	Simple Type Controller	MWR-SH00N		•		•
	Touch Controller	MWR-SH11N		•		•
	ERV Wired Remote Controller	MWR-VH12N				
	Wireless Receiver Kit	MRK-A10N		•		
Centralised Control System	Touch Centralised Controller 2.0	MCM-A300BN	 <b>NEW</b>	•		
	ON/OFF Controller	MCM-A202DN		•	•	
	Wi-Fi Kit	MIM-H04EN		•		•
	Module Controller	MCM-A00N			•	
Integrated Management System	DMS 2.5	MIM-D01AN		•	•	
	S-NET3	MST-P3P		•		
	b.iIoT Lite Software	MST-BL1A		•		
Gateway & Interface	BACnet Gateway	MIM-B17BN		•	•	
	Lonworks Gateway	MIM-B18BN		•	•	
	Modbus Interface Module	MIM-B19N		•		
	PIM (Pulse interface module)	MIM-B16N		•	•	
	External Contact Interface Module	MIM-B14		•	•	
		MIM-B14A (refrigerant leakage detector)		•		
	Interface Module Converter (RS485-NASA)	MIM-N01		•		
	ERV Interface Module Converter (RS485-NASA)	MIM-N10				
	FCU Interface Module	MIM-F00N MIM-F10N				•
Installation/ Test Run Solution	S-Converter	MIM-C02N		•	•	
Others	External Room Sensor	MRW-TA		•		
	Operation Mode Selection Switch	MIM-C200		•		
	MTFC (Multi-Tenant Function Controller)	MCM-210N		•		

Compatibility

	FCU 3rd party	ERV	ERV Kit	ERV Plus	PAC	AHU Kit
						•
	•	•		•		•
	•					
	•					
		•		•		
		•	•	•	•	•
		•		•	•	•
		•	•	•	•	•
		•		•	•	•
		•	•	•	•	•
		•		•	•	•
		•	•	•	•	•
		•		•	•	•
		•	•	•	•	•
		•		•	•	•
		•	•	•	•	•
		•		•	•	•
		•	•	•	•	•
	•					
		•	•	•	•	•

# Selection guide



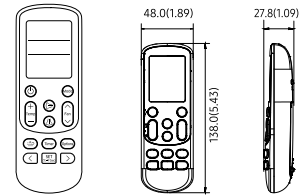
Model		MWR-WG00*N	MWR-SH00N	MWR-SH11N	MWR-VH12N	
Appearance	Dimensions	120.0 x 120.0 x 19.0	75x 122x 16.6	94.2 x 122.0 x 19.5	75.0 x 122.0 x 16.6	
Connection	Indoor units control	●	●	●		
	ERV control	●			●	
	Maximum connectable indoor units	16	16	16	6	
Control & monitoring	ON/OFF	●	●	●	●	
	Operation mode	●	●	●	●	
	Fan speed	●	●	●	●	
	Air swing	●	●	●		
	Room temperature display	●				
	°C convertible	●		●		
	Filter cleaning alarm reset	●	●	●		
	Air quality display	●				
	Purification display	●				
	Display indoor model number	●				
	Error display	●	●	●	●	
	Error list	●				
	Schedule	Weekly schedule	●			
		Simple ON/OFF timer		●	●	●
Convenient function	Dual set point	●				
	Multiple languages	●				
	Built-in room sensor	●		●		
	LCD backlight	●		●		
	Wireless RC restriction	●	●	●		
	Child lock	●	●	●	●	
	Partial button lock	●	●	●	●	
	Quiet mode	●	●	●		
	Sleep mode	●		●		
	Away mode (SAC)	●		●		
	Away mode (ERV)				●	
	IR receiver	●		●		
	Real-time clock					
	Daylight saving time	●				
	Individual blade control	●				
	CO <sub>2</sub> display	○ ERV			●	
	Purification mode	○ ERV				
Energy saving	Temperature range limit	●	●	●		
	Automatic operation stop	●				
	Operation time limit	●				
	Energy consumption monitoring	●				
	Energy saving mode with ERV	●				
Maintenance	SD slot	●				

# Features and Dimensional drawings

## Individual Control System

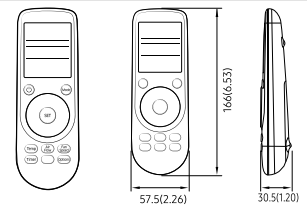
### Wireless Remote Controller AR-EH03E / AR-EH03M / AR-EH04E

- Operation ON/OFF control
- Fan speed control
- Operation temperature setting
- WindFree™ Cooling function
- Filter cleaning alarm reset
- Air swing control
- Simple ON/OFF timer
- Indoor unit option code setting
- Option/Setting selection



### Wireless Remote Controller AR-KH03E / AR-KH04E

- 360 Cassette airflow direction control
- Operation ON/OFF control
- Fan speed control
- Operation temperature setting
- Filter cleaning alarm reset
- Simple ON/OFF timer
- Indoor unit option code setting



### Wired Remote Controller MWR-WG00JN, MWR-WG00KN

#### Air conditioner/ERV control

- AC control: ON/OFF, operation mode, temperature setting, fan speed, airflow direction
- ERV control: ON/OFF, operation mode, fan speed
- AC/ERV error monitoring
- Filter cleaning alert and reset alert time
- Control a maximum of 16 "Indoor unit + ERV" in a group with a single wired controller

#### Energy saving operation

- Upper/lower temperature limit setting
- Automatically stops operating when not used for certain period of time as set by user

#### Weekly operation schedule setting

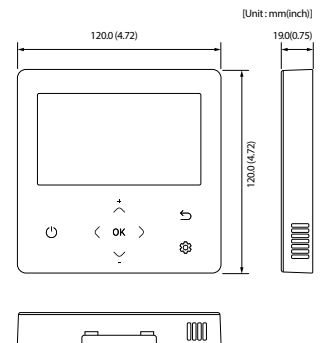
- Weekly operating schedule (A/C only, ERV only, A/C+ERV)
- Set desired AC operation mode, temperature and fan speed to operate based on a weekly schedule
- Apply schedule exception day
- Energy consumption monitoring
- Operation time limit

#### User convenience function

- Child lock
- Different button permission levels
- Room temperature display
- Dual set point
- Built-in room temperature sensor
- Real-time clock: displays current time and day (summer time support)
- Multiple language support
- Service mode support
- Indoor unit cycle data monitoring
- Indoor unit option code setting and monitoring
- Indoor unit address setting and monitoring
- SD card slot

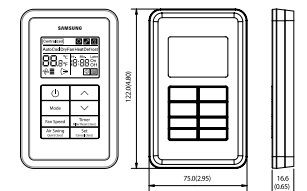
#### Available languages:

- MWR-WG00JN: English, French, Spanish, Portuguese, Dutch, German
- MWR-WG00KN: English, Italian, Greek, Czech, Slovak, Polish



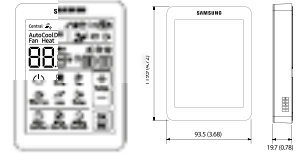
### Simple Type Controller MWR-SH00N

- Simplified wired remote controller
- AC operation ON/OFF control
- Fan speed control
- Setting operation mode and temperature
- Reset filter cleaning alert indicator
- Adjust airflow direction
- Operation ON/OFF timer function



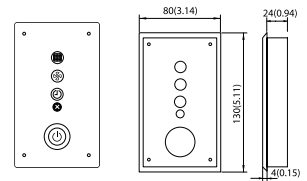
**Touch Controller  
MWR-SH11N**

- Bigger display: clear & bright backlight screen with big fonts
- WindFree™ button: control WindFree™ function with just one click
- Room temperature monitor and room temperature display thanks to the built-in temperature sensor
- Icon/Function Lock: option of restricting icon/function on the display
- Sleep Mode: help users to sleep better by controlling temperature
- Outing Feature: keep room temperature above/below specific set value when the user is out of the room



**Wireless Receiver Kit  
MRK-A10N**

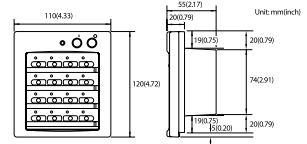
- Concealed wireless signal receiver
- Filter cleaning sign
- Fan operation display
- Operation Timer setting display
- Operation ON/OFF button
- Operation On display LED (blue)
- Defrost operation display LED (red)



## Centralised Control System

**ON/OFF Controller  
MCM-A202DN**

- Maximum 16-group controller (Max. 128 units)
- Whole/Group/Individual indoor unit control (ON/OFF)
- Restriction on the use of wireless/wired remote controllers and external contact control
- Cooling and heating mode control
- Indoor unit error display



**Touch Centralised Controller 2.0  
MCM-A300BN**

**NEW**

- Large Display: 10.1 inch touch LCD controller
- Ease of use: Provides a familiar user experience by applying the SmartThings UI style
- Simple and modern design (Slim bezel 15mm, Resolution (pixels) : 1280 x 800 (TFT LCD))
- Harmony with interior, easy to select background image
- Controls max. 128 indoor units
- Can display energy usage for each device (Hour/Day/Week/Year)
- Set detailed schedule according to each zone and indoor unit
- History of error helps to check the cause of failure and take quick action
- History of energy usage (Function available in RTS Q3'24)
- Intuitive control (2D layout view) (Function available in RTS Q3'24)
- Remote control by PC/Tablet (In-site) (Function available in RTS Q3'24)
- Net dimensions (W x H x D): 245.7 x 164.5 x 30.9 mm



**Wi-Fi Kit 2.0  
MIM-H04EN**

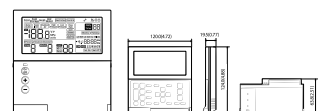
- Enhanced Convenience
- Voice Control available through a smartphone with Bixby
- Connected home with affordable units in every home using SmartThings
- Welcome cooling and heating based on Geo-fencing
- Individual indoor unit control
- Personalized Climate Environment
- Preferred automation
- Multi-device experience interoperable with smart appliances

- Energy Usage Monitoring
- Current and daily, weekly or monthly energy usage\* of the outdoor unit
- Provides ease of installation
- Easy set-up possible for up to 16 indoor units at once
- Net dimensions (W x H x D): 185 x 130 x 29mm



**Module Controller  
MCM-A00N**

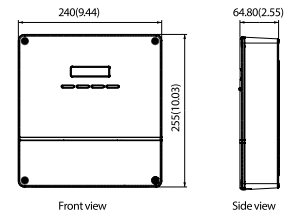
- DVM CHILLER ON/OFF control (Module/Group)
- Operation mode, water outlet temperature setting
- Optional operation setting
- Module/Group setting
- Weekly operation schedule setting



# Integrated Control Systems

## DMS 2.5 MIM-D01AN

- Built-in web server for PC-independent management and remote access control
- Multiple upper-layer control access (S-NET 3, Web-client)
- Weekly/Daily schedule control
- Power distribution function
- Current time management even during power failure (for 24 hours)
- Emergency stop function with simple contact interface
- Individual/Group control of up to 256 indoor units, AHU and ERV
- User editable control logic
- Accessible level management.
- Dynamic security management
- Operation & error history management
- Data storage in non-volatile memory & SD memory
- Net dimensions (W x H x D): 240 x 255 x 65mm



## b.IoT Lite Software MST-BL1A

- Integrated building management solution for operational convenience and energy savings
- Open platform which enables integrated control such as DVM, 3rd party devices via BACnet interface
- Suitable for small & medium sized buildings
- Management and remote access control up to 4000 points
- Convenient control authority setting up to maximum 100 clients
- Easy UI experience, HTML5-based Dashboard with a quick overview of customized data for each user
- Operation & error history management: Information on the operation of indoor and outdoor
- units can be stored in graphs or Excel.
- Weekly/Daily schedule control
- 2D layout overview provides location-based intuitive monitoring by visualizing the location of DVM on the drawings of each building and floor.
- Individual/Group/Zone control
- Intelligent Energy Management help to provide more precise energy saving with data-based intelligent controls via algorithms, energy leakage detection and energy distribution

- Energy consumption trend/ energy target setting/tenant based power usage
- Data-based comfort control prevents overcooling/overheating by calculating the proper temperature in consideration of climate and human factors (clothing and activity)
- AI learning based pre-cooling/heating energy saving control predicts time to reach target temperature by learning temperature change and air conditioner setting
- Price Response Control helps to reduce energy consumption and operation costs by controlling indoor temperature and outdoor unit performance by responding to the rates fluctuating by the time of the day.
- Mandatory Hardware requirements: 2.5 GHz CPU, min 32GB RAM, Hard disk or SSD with capacity of 2 TB, 10/100/1000 Base-T(RJ-45 Connector) LAN Card and 1920 x 1080 resolution Display
- Mandatory Software requirements: Windows 10/11 64-bit Chrome browser is recommended (60.x.x.x or newer)

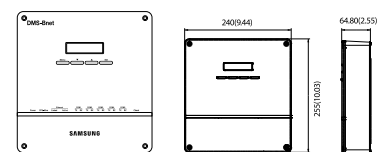


# Gateway & Interfaces

## BACnet Gateway MIM-B17BN

With the BMS control and monitoring function, BACnet gateway makes it easy to control the air conditioning network in various ways. BACnet gateway can control up to 256 indoor units.

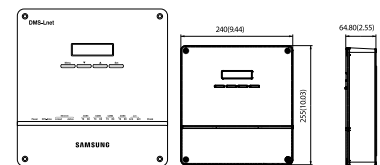
- Interface for BACnet management system
- Maximum of 256 indoor units plus ERVs, supported by a maximum of 80 interface modules
- Includes DMS 2.5 functions



## LonWorks Gateway MIM-B18BN

LonWorks gateway is an interface for Lon-Connection to the LonWorks management system, providing you with a more convenient way to manage your air conditioning system. It can control a maximum of 128 indoor units.

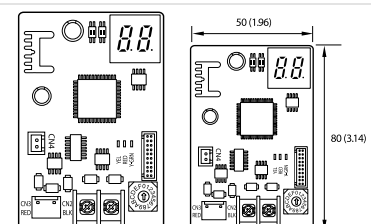
- Exclusive use for DMS 2.5 power distribution
- Connection with up to eight watt-hour meters
- Pulse interface with watt-hour meters
- Watt-hour meter - by third party



## Modbus Interface Module MIM-B19N

A BMS or 3rd controller can control a Samsung SAC by using the Modbus protocol.

- BMS unit protocol: Modbus RS485 (2 wires, max. 1,000m)
- Unit connection protocol: Samsung Control Layer Protocol (R1/R2)
- Max. No. of connection units: 1 outdoor unit (4 outdoor units including sub units in the case of modular installation) and 48 indoor units
- Modbus interface module address range : up to 247
- Net dimensions (W x H): 50 x 80mm

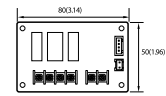
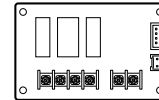




**External Contact Interface Module  
MIM-B14**

Samsung Guestroom Management System saves users the energy and money wasted on cooling an unoccupied room. The air conditioner is activated when the Key-Tag is in place and turns off when the Key-Tag is removed. An external contact interface module provides direct indoor unit control via an external contact signal, as well as window-synchronised indoor unit control. The emergency control function features simple contact input. The module also generates indoor unit operation/error state output through relay contacts.

- 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



**Refrigerant Leak Detect (RLD) Interface Module  
MIM-B14A**

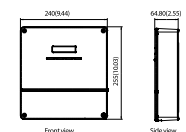
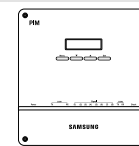
The RLD Interface Module is an interface module that has 2 outputs and 1 input. It is mainly applied to the Refrigerant Leak Detector system.

- RLD Interface Module function
- To send a refrigerant leakage detection signal from a master DDC to an outdoor unit
- To send a outdoor pump down operation status signal from an outdoor unit to a master DDC
- Net dimensions (W x H x D): 50 x 80 x 35mm



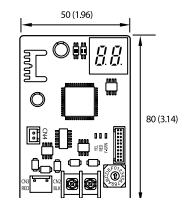
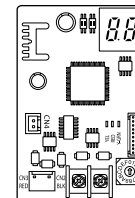
**PIM (Pulse Interface Module)  
MIM-B16N**

- The Watt-Hour Meter Interface Module can be exclusively used for DMS 2.5 power distribution, displaying power consumption for each watt-hour meter.
- Exclusive use for DMS 2.5 power distribution
- Connection with up to eight watt-hour meters
- Pulse interface with watt-hour meters
- Watt-hour meter - by third party



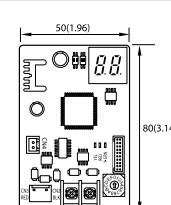
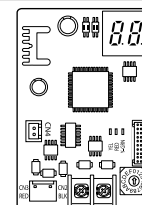
**Interface Module  
MIM-N01**

- Communication interface module between outdoor units and the upper level controller which makes use of a different type of communication
- Connect one interface module to one outdoor unit
- Individual control - maximum of 48 indoor units
- Group control - maximum of 16 groups
- Automatic detection of communication type: determine the communication type used by the upper level controller according to the communication type used by the outdoor unit
- Supported communication type
  - Conventional outdoor unit communication ↔ New upper level controller communication
  - New outdoor unit communication ↔ Conventional upper level controller communication



**FCU Interface Module  
MIM-F10N**

- Communication interface module
- Connect one FCU interface module to a maximum of 16 FCU Kits.
- Supports FCU Kit only



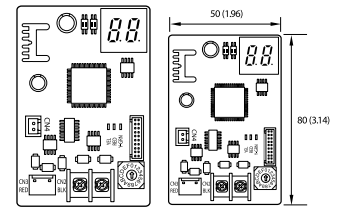
**FCU Kit  
MIM-F00N**

- For 3rdParty FCU
- Communication and control interfacing kit between 3rd party FCU and Samsung control system
- Possible to use wired remote controller
- Possible to use DMS 2.5, touch centralized controller
- Provides external contact input
- Outputs control signal for FCU fan/water valve
- Size: 270 x 200 x 87.4mm (W x H x D)



**Interface Module (Converter RS485 to NASA)  
MIM-N10**

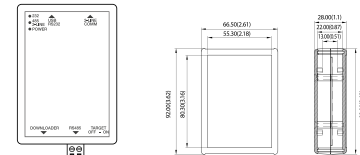
- Communication interface module between new communication ERV and controller
- Connect one ERV interface module to a maximum of 16 ERVs
- Individual control - maximum of 16 ERVs
- Group control - maximum of 16 groups
- Supported communication type
  - Conventional ERV communication ↔ New upper level controller communication
  - New ERV communication ↔ Conventional upper level controller communication
  - New ERV communication ↔ New upper level controller communication



## Installation/Test Run Solution

**S-Converter  
MIM-C02N**

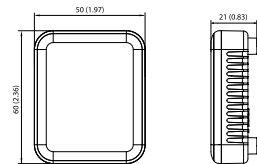
- Communication converting module to connect Samsung system air conditioner to a PC.
- Main purpose for use
  - To connect with test run programme [Test run programme]
  - S-NET Pro: Conventional communication
  - S-NET Pro2: NASA communication



## Others

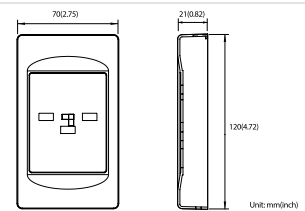
**External Room Sensor  
MRW-TA**

- Indoor unit is operated by MRW-TA instead of its own sensor.
- Wire length: 12 m



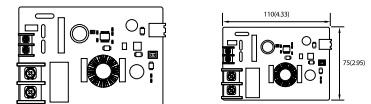
**Operation Mode Selection Switch  
MCM-C200**

- Outdoor unit operation mode selection (Cooling, Heating or Auto)
- Mixed operation mode protection



**MTFC (Multi-Tenant Function Controller)  
MCM-C210N**

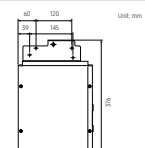
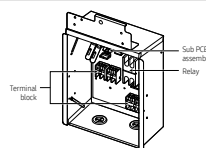
- Multi-tenant function controller is an auxiliary power supply device which allows the indoor unit to turn off (close EEV) normally and maintain communication when the mains power supply is cut.
- It is used on sites such as hotels, where individual power is supplied to the indoor unit



**Base heater Control Kit  
AVR-M200GHAX**

**NEW**

- Only Compatible with DVM S2 base heaters (MHC-013VE1 and MHC-015VE1)



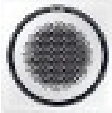



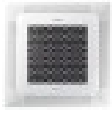
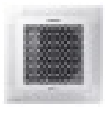








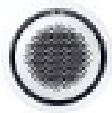













# Accessories










# Line-up

Motion Detect Sensor					
360 Cassette Front Panel					
	<b>PC4NUDMAN</b> White Square	<b>PC4NBDMAN</b> Black Square	<b>PC4NBNMAN</b> Black Circle (Exposed installation)	<b>MCR-SME</b> (with white square panel)	
WindFree™ 4-Way Cassette Front Panel					
	<b>PC4NUFMAN</b> WindFree™ 4-Way 900 x 900 Cassette	<b>PC4SUFMAN</b> WindFree™ 4-Way 600 x 600 Cassette	<b>MCR-SMC</b> 900 x 900		<b>MCR-SMD</b> 600 x 600
WindFree™ 1-Way Cassette Front Panel					
	<b>PC1MWFMAN</b> WindFree™ 1-Way Cassette (1.7-2.2 kW)	<b>PC1NWFMAN</b> WindFree™ 1-Way Cassette (2.8-3.6 kW)	<b>PC1NWFMBN</b> WindFree™ 1-Way Cassette FCU (2.8-3.6 kW)		
Air Purification Panel *for only CAC & DVM					
	<b>PC6EUCMAN</b> 360 Cassette	<b>PC4NUCEAN</b> WindFree™ 4-Way 900 x 900 Cassette	<b>PC1NWCMAN</b> WindFree™ 1-Way Cassette (2.8-3.6 kW)		
Auto Elevation Panel *for only CAC & DVM					
	<b>PC6EUXMAN</b> 360 Cassette	<b>PC4NUXMAN</b> WindFree™ 4-Way 900 x 900 Cassette			

Classification	Image	Model	Application
Drain Pump		MDP-N0475NC1D	HSP Duct (22.4/28.0 kW) Fresh Air Intake Duct (14.0 kW)
		MDP-M075SGU2D	OAP Duct for DVM S
		MDP-G075SP	Global Duct (External Type)
		MDP-G075SQ	Global Duct (Internal Type)
AHU Kits		MXD-K025AN	EEV + Control Kit (7.00–8.75 kW AHU)
		MXD-K050AN	EEV + Control Kit (14.00–17.50 kW AHU)
		MXD-K075AN	EEV + Control Kit (21.00–26.25 kW AHU)
		MXD-K100AN	EEV + Control Kit (28.00–35.00 kW AHU)
		MXD-A64K100E	AHU EEV Kit (10 HP)
		MCM-D201N	Control Kit (PBA, 10 HP–40 HP)
Y-joint		MXJ-YA1509M	15.0 kW and below
		MXJ-YA2512M	Over 15.0 kW–40.0 kW and below
		MXJ-YA2812M	Over 40.0 kW–45.0 kW and below
		MXJ-YA2815M	Over 45.0 kW–70.3 kW and below
		MXJ-YA3419M	Over 70.3 kW–98.4 kW and below
		MXJ-YA4119M	Over 98.4 kW–135.2 kW and below
		MXJ-YA4422M	Over 135.2 kW
Y-Joint (HR Only)		MXJ-YA1500M	22.4 kW and below
		MXJ-YA2500M	Over 22.4 kW–70.3 kW and below
		MXJ-YA3100M	Over 70.3 kW–135.2 kW and below
		MXJ-YA3800M	Over 135.2 kW
Y-Joint (Outdoor Unit)		MXJ-TA3419M	135.2 kW and below
		MXJ-TA4122M	140.2 kW and over
Y-Joint (HR Outdoor Unit)		MXJ-TA3100M	135.2 kW and below
		MXJ-TA3800M	140.2 kW and over
Y-Joint (for MCU)		MXJ-YM1509M	Over 16.0 kW–28.0 kW and below
		MXJ-YM1206M	Over 6.0 kW–14.0 kW and below
		MXJ-YM1206R	Over 6.0 kW–14.0 kW and below
Distribution Header		MXJ-HA2512M	45.0 kW and below (for 4 rooms)
		MXJ-HA3115M	70.3 kW and below (for 8 rooms)
		MXJ-HA3819M	Over 70.3 kW–135.2 kW and below (for 8 rooms)
Heat Recovery Changer		MCU-R4NEK0N	
		MCU-S6NEK3N	



Classification	Image	Model	Application
MCU		MCU-S12NEK1N	12 ports, max 61.6 kW (~16 kW/port)
		MCU-S8NEK1N	8 ports, max 61.6 kW (~16 kW/port)
		MCU-S6NEK2N	6 ports, max 61.6 kW (~16 kW/port)
		MCU-S4NEK3N	4 ports, max 61.6 kW (~16 kW/port)
		MCU-S2NEK2N	2 ports, max 32.0 kW (~16 kW/port)
		MCU-S1NEK1N	1 ports, max 16.0 kW (~16 kW/port)
EEV Kit		MXD-E24K132A	2 Indoor
		MXD-E24K200A	
		MXD-E32K200A	
		MXD-E24K232A	
		MXD-E24K300A	3 Indoor
		MXD-E32K224A	
		MXD-E32K300A	
		MEV-E24SA	1 Indoor
MEV-E32SA			
DRAIN HOSE		MOK-200DA	L TYPE SLIM 1-WAY / 4-WAY MINI
Differential Pressure Switch		MOS-P1050	ERV (Plus)
CO <sub>2</sub> SENSOR		MOS-C1	ERV (Plus)
Base-heater Kits		MHC-015EE	DVM S Eco HR
		MHC-013VE1 <b>NEW</b>	DVM S 2 Small
		MHC-015VE1 <b>NEW</b>	DVM S 2 Large
PDM (Pressure Drop Modulation) Kit		MXD-A38K2A	8 – 12HP
		MXD-A12K2A	14 – 16HP
		MXD-A58K2A	18 – 26HP
3rd party FCU Accessories		ACL-A60V3	3-Way Valve Kit
		ACL-ADP	Drain pipe
		ACL-A0**HC	Heating coil 4-pipe
		ACL-A0**V3	3-Way Valve Kit 4-pipe
		ACL-ADV	Auxiliary Drain Pan Vertical
		ACL-ADH	Auxiliary Drain Pan Horizontal





# Design and support





# Samsung Climate Solutions Partner Portal

As one of Samsung's registered Climate Solutions partners, you will have access to our Partner Portal and its many benefits. Whether you are looking for technical product documentation, requesting technical support or registering for training, the Samsung Climate Solutions Partner Portal offers you everything you need to consistently deliver the best results.

## Access technical resources

The Technical Resources section provides you with all of the relevant information you need to understand the product's functionality and to prepare and design projects. A library full of

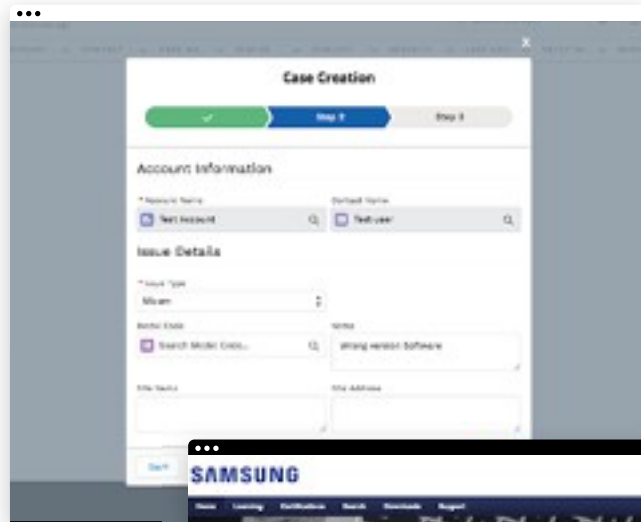
technical information is at your fingertips, ranging from technical data books, BIM files and certificates to exploded views, drawings and different kinds of manuals.

The screenshot displays the Samsung Climate Solutions Partner Portal interface. At the top, there is a navigation bar with the Samsung logo, a search bar, and a user profile section. Below the navigation bar, there is a main header area with a search bar and a 'My Resource' dropdown. The main content area is divided into several sections:

- Product List:** A list of product categories including Air to Water Heating (EHS), Commercial (CAC), Multi Split (FJM), Ventilation (ERV), Controls & Accessories, VRF & Chiller (DVM), and Residential (RAC).
- Category List:** A list of categories including Technical Resources (22334), Application (4), Building Information Modeling (484), GE DoC (84), Drawings (288), EEPROM (130), Etc (129), and Exploded View (12681).
- Resource Spotlight:** Three featured technical data books: [TDB] Single Wind Free 4Way Cassette for Thailand (R410A, HP), [TDB] 2018 Global RAC TDB, and [TDB] Max Heat RAC for America (R410A, 60Hz, HP).
- Recommendation:** A section for recommended resources, including a service bulletin for MCU-52NEK2N.

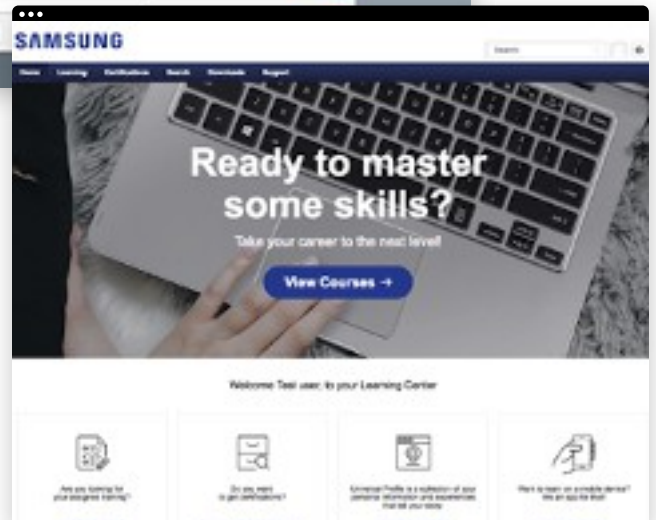
# Request technical support

You can easily request technical support through the Samsung Partner Portal by reporting your case using our built-in ticketing system. You can rest assured that our well-trained technical experts will work to solve your issue as soon as possible.



# Register for training

If you are dedicated to becoming a Samsung climate solutions expert, you can access Samsung's educational portal for training sessions provided by experienced trainers. The portal allows you to search for online courses and materials, test your climate solutions knowledge, and more. The Samsung Business Academy is here to help you succeed.<sup>1</sup>



<sup>1</sup> The registration process for and availability of training courses may vary per country. Please contact your direct Samsung contact person for more information.

# How to access



## 1. Register

To register for the Samsung Climate Solutions Partner Portal, open your web browser<sup>1</sup> and go to [partnerhub.samsung.com/climate](https://partnerhub.samsung.com/climate) to complete the registration form.



## 2. Access

Your information will be verified and your account will be activated. You will receive your personal login details.



## 3. Manage account

Keep your account details up to date and invite your colleagues to join.



## 4. Search and download

Access a full library of resources, request technical support, or sign up for a Climate Solutions Academy training session.

<sup>1</sup> Google Chrome is the recommended web browser for using the Samsung Climate Solutions Partner Portal.



# Samsung DVM Pro 2.0

Samsung DVM Pro 2.0 is an advanced design automation programme which helps you to select the most suitable equipment for easily and precisely designing your HVAC system. It helps to ensure that the system's design falls within Samsung's engineering guidelines. With its reports, pipe and wire diagrams, additional refrigerant values and other information, Samsung DVM Pro 2.0 is a powerful tool for engineers, designers or installers.

## Sales Mode

Sales Mode enables users to define their requirements and select air conditioning products quickly and easily.

### Product selection

List of equipment, including indoor units, outdoor units, controls and accessories

### Control systems

Automatic control unit selection

### Updated Toolbar

User-friendly tool bar helps to guide intuitively

### Piping schematics

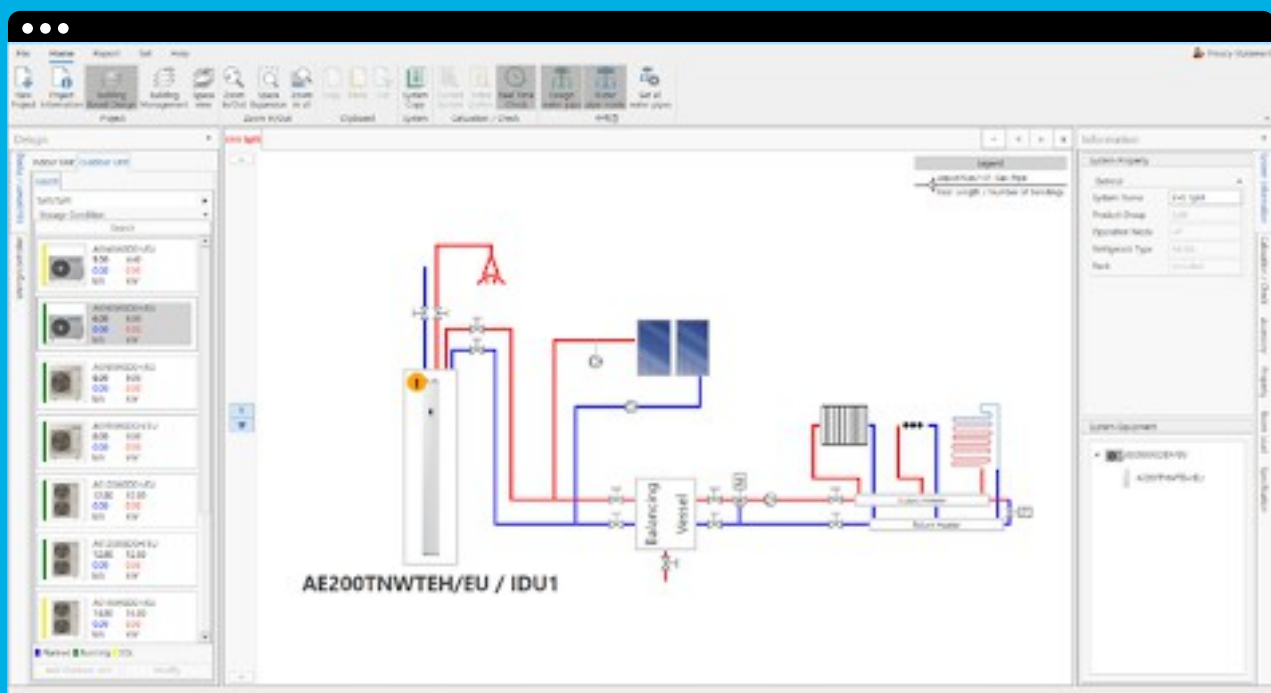
Basic or manual selection with system check and capacity simulation

### Wiring schematics

Automatic diagrams including communication wiring for indoor/outdoor/control units and electric power meters

### Reports

Specifications, diagrams in DWG & BMP format, quotations



# CAD Mode

CAD Mode is an in-depth and precise design tool that enables users to design their air conditioning systems.

## Pipe sizing & lengths

Automatic pipe drawing and selection

## Automatic selection and report

Piping installation

## System check

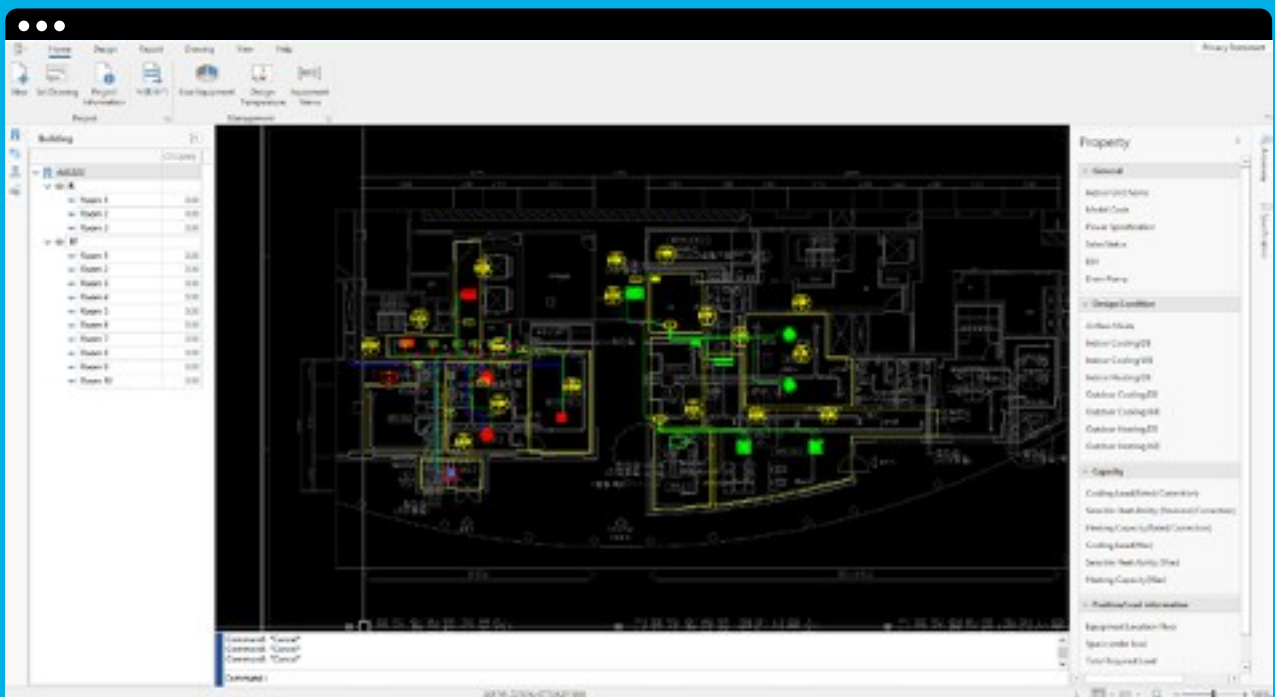
Installation regulation & refrigerant charging

## Design without AutoCAD

Compatible with AutoCAD and AutoCAD LT for DWG.

## Performance simulation

Capacity correction tool against specific design conditions



<sup>1</sup> Google Chrome is the recommended web browser for using the Samsung DVM Pro 2.0 Portal.

## How to access



### 1. Register

Go to [dvmpo.mkt.samsung.com](http://dvmpo.mkt.samsung.com) to access the Samsung DVM Pro 2.0 Portal<sup>1</sup>. If you do not have access yet, complete the registration process and you will be sent the access details.



### 2. Select

Click on DVM Pro 2.0 via the main menu and scroll to the end of the page to select the option DVM Pro 2.0 download.



### 3. Download

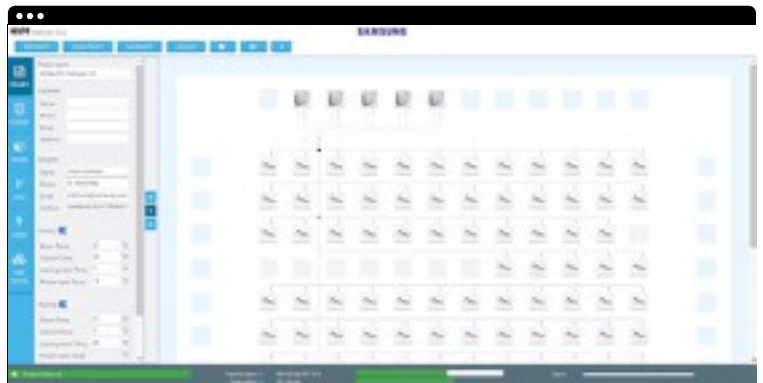
Download the DVM Pro 2.0 installation file, view the user manuals, and start designing your project.

# Samsung HVM Selection Tool

To support engineers in designing a Samsung HVM water-based VRF system, Samsung has created an easy-to-use selection tool with convenience in mind. This tool will help you design your whole system in a modular way, simplifying and speeding up the process. The Samsung HVM Selection Tool does not require any software installation and is freely accessible online, giving you a head start in creating and designing your projects for tomorrow.

## Easy system configuration

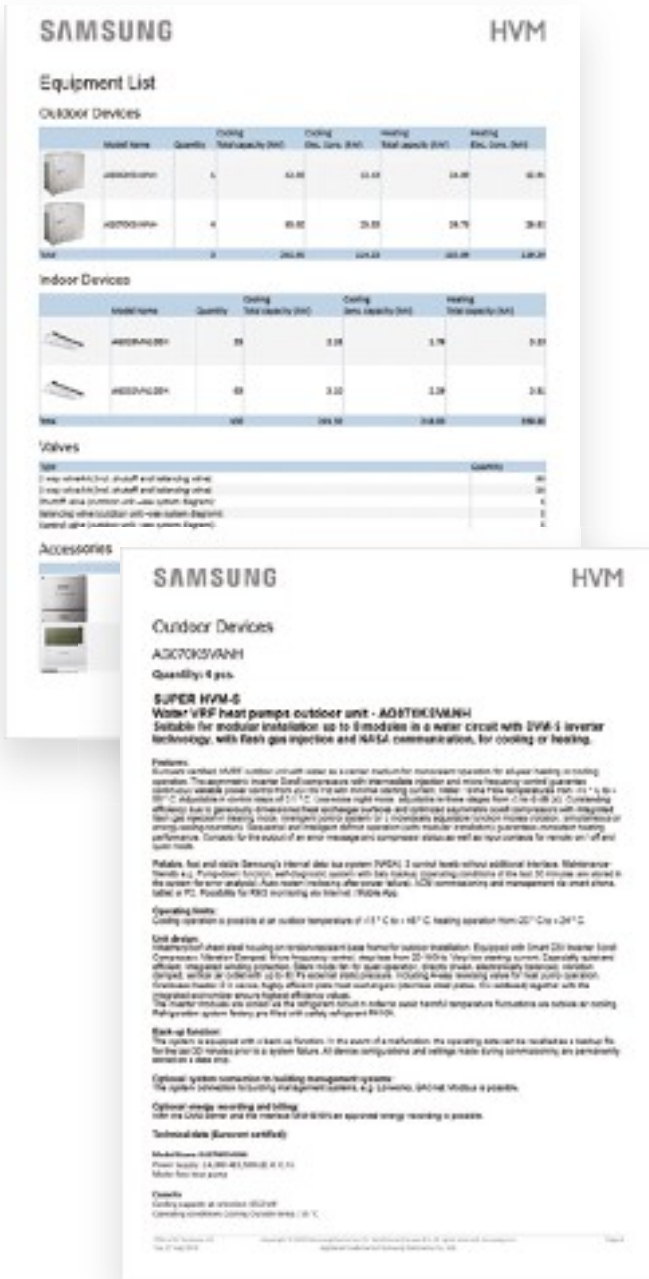
The drag and drop interface of the HVM Selection Tool enables you to configure the HVM system easily and quickly. Based on the configuration selected, the tool generates information such as total water flow and total system pressure drop, enabling you to select the appropriate water pump and piping. Values for cooling and heating are calculated automatically based on the design conditions selected for the project (room temperature, outside temperature, water temperature).



SAMSUNG		HVM	
AG325M10EH			
Room Name	XXXXXXXXXX		
Room Type	1 (100-00000)	0.4 x 1.0	
Capacity			
TR Cooling Capacity at selection	3.28	kW	
Max. Cooling Capacity at selection	3.78	kW	
Room temperature heating @ selection	21	°C	
Heating Capacity at selection	3.11	kW	
Room temperature heating	21	°C	
Cooling/Heating water temperature	12 (12)	°C	
Heating/cooling water temperature	21 (18)	°C	
Room			
Room height	4.0	m	
Room depth	3.0	m	
Room			
Type	2 (00000000)		
Unit	40		
Number of units	1		
Air flow (m³/min) (m³/h)	4.0 (240)	0.000	
Supply air pressure	0.00	mmHg	
Piping connection	5/8"	Ø1.315	
Room			
Water flow			
Room Water flow	3.515	l/s	
Maximum water pressure	0.75 (1.0)	MPa	
Water			
Room flow at selection	0.00	l/s	
Pressure drop (selection)	7.4	Pa	
Water			
Water (selection) (m³/h) (m³/d)	26.532 (636.768)	0.00	
Water flow	40	l/s	
Water (selection)			
Water weight	3.11	kg	
Heating weight	3.11	kg	
Water (selection) (weight)	0.000000	kg	
Heating (selection) (weight)	0.000000	kg	
Water			
Type	1 (000000)		
Unit	10		
Number of units	10		
Water (selection) (weight)	0.000000	kg	
Heating (selection) (weight)	0.000000	kg	
Water			
Water (selection)	10	kg	
Water			

## Complete technical information

The HVM Selection Tool includes a detailed list of available outdoor Samsung HVM chiller units and indoor FCU units. It also includes an overview of accessories and essential hydronic components, and features the required efficiency data (SCOP, COP, SEER and EER). To enable the preadjustment of balancing valves, the detailed list of indoor units shows the water flow, pressure drop and pressure difference data for the water line holding the highest pressure drop.



# Automated project report

You can opt for a comprehensive annual energy consumption simulation, based on a fixed set of parameters and the climate zone selected for the heating mode (warm, average, cold). High resolution PDF documents can be generated showing the wiring diagrams and hydraulic diagrams for indoor units and outdoor units, including the pipe dimensions. The detailed project report is presented in a layout that is easy to understand.

# Tender specifications file

A tender specifications file can be generated that includes full product descriptions, feature explanations and complete technical data. You can also personalise the document by including additional information about the customer and the designer.

## How to access



### 1. Access

To access the HVM Selection Tool, open your web browser<sup>1</sup> and go to [hvm.openforce.com](http://hvm.openforce.com). No additional software installation is required.



### 2. Design

Create your project, design the HVM system and generate an automated report and tender specifications file online.



### 3. Support

If you require support, please consult the manual that can be downloaded directly from the HVM selection tool.

<sup>1</sup> Google Chrome is the recommended web browser for using the Samsung Climate Solutions Partner Portal.

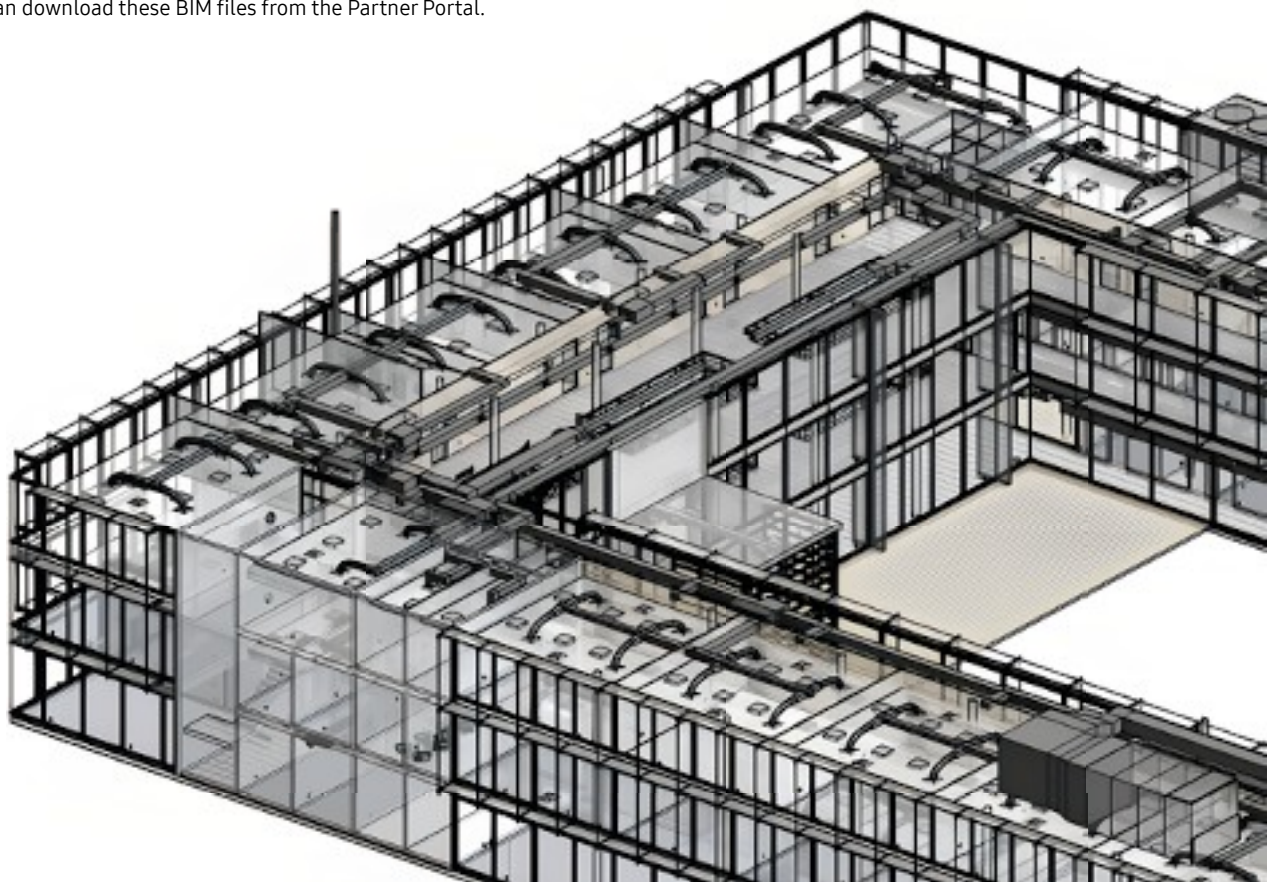
# Samsung specialist design support

Bringing together technical expertise and practical experience in climate system design, Samsung provides a single point of contact for the design and management of cooling and heating installations in buildings. With assistance ranging from 3D visualisations with BIM support to CFD analysis to optimise indoor thermal conditions and BREEAM assessments to achieve the best environmental performance, Samsung's specialist engineers are ready to support you in making your project a success.

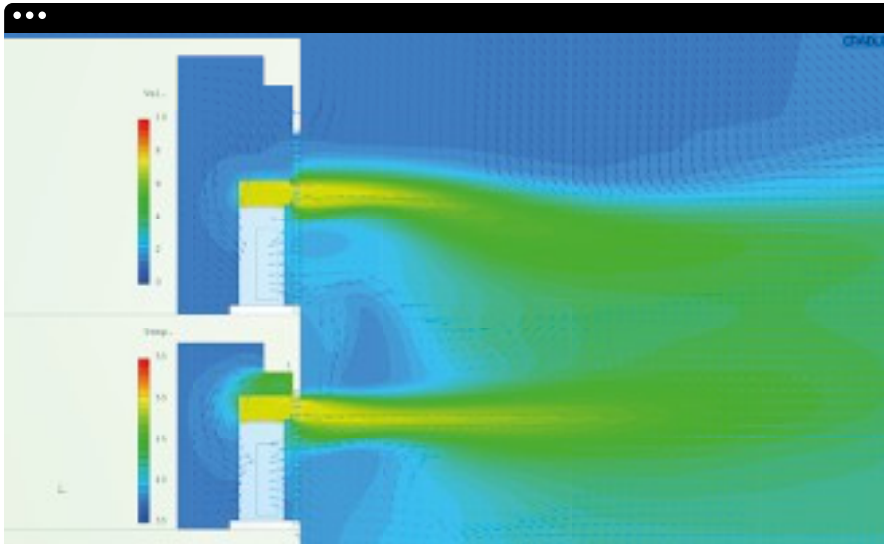
## BIM support

Building Information Modelling (BIM) is an intelligent 3D model-based process for creating and managing information on the physical and functional characteristics of a building, across the project lifecycle and covering all parties involved, including the supply chain. BIM gives architects, engineers and construction professionals the insights and tools necessary to efficiently plan, design, construct and manage buildings and infrastructure.

To support you as one of our Climate Solutions partners, Samsung has developed a full range of BIM models. You can download these BIM files from the Partner Portal.







## CFD analysis

Computational Fluid Dynamics (CFD) uses numerical analysis and data structures to analyse thermal conditions in buildings. It allows the virtual testing and optimisation of various climate system configurations in the context of occupant comfort, energy efficiency and running cost. Samsung can offer you specialist CFD support that includes analyses such as indoor temperature profiling, airflow distribution and sound simulation.

## BREEAM advice

BREEAM (BRE<sup>1</sup> Environmental Assessment Method) is one of the most widely used environmental assessment methods and rating systems for buildings. It sets the standard for best practice in sustainable design and has become the de facto measure used to describe a building's environmental performance. Samsung's Accredited Professionals (APs) can support you in assessing

# BREEAM<sup>®</sup>

the optimal installation for achieving a high certification score to match your green building programme.

<sup>1</sup>BRE (Building Research Establishment) is a leading, multidisciplinary building science centre based in the United Kingdom.

## How to obtain support



### 1. BIM support

To download Samsung BIM models, go to the Technical Resources on [partnerhub.samsung.com/climate](https://partnerhub.samsung.com/climate)<sup>1</sup>. To request dedicated project design support from Samsung, please contact your Samsung representative.



### 2. CFD analysis

Obtain CFD analysis support from Samsung, please contact your Samsung representative. Certain conditions may apply, subject to the project.



### 3. BREEAM advice

Please contact your Samsung representative to request a BREEAM evaluation by one of Samsung's Accredited Professionals (APs).

<sup>1</sup> Google Chrome is the recommended web browser for using the Samsung Climate Solutions Partner Portal.



# Samsung Climate Solutions Academy

Samsung Climate Solutions Academy is committed to providing engineers with the technical skills required to install a Samsung product efficiently, and to help relay necessary information to users. All courses are designed to provide attendees with the opportunity to develop both theoretical and practical knowledge of Samsung's vast range of equipment and solutions.

## Available training modules

Essential courses

### Basic commercial training

- The product line-up, accessories and available controls
- The unique features of Samsung products
- Installation considerations

1

Advanced courses

### Technical training

- How to correctly install and configure a system
- Commissioning: common issues during commissioning and how to resolve any challenges
- Troubleshooting and fault-finding (by use of E-codes)
- Control logic
- Case studies

2

Advanced courses

### Design training

- Understanding customers' needs and offering possible solutions
- DVM Pro 2.0 - Samsung's advanced design tool
- Case studies

3

Note: the registration process for and availability of training courses may vary per country. Please contact your Samsung representative for more information.

# Samsung training centres in Europe

## Amsterdam

The Netherlands

## Athens

Greece

## Chertsey

United Kingdom

## Lisbon

Portugal

## Lyon

France

## Madrid

Spain

## Mansfield

United Kingdom

## Milan

Italy

## Warsaw

Poland



## How to register for training



### 1. Select

Go to [partnerhub.samsung.com/](https://partnerhub.samsung.com/climate) **climate** and search the online event calendar to select the training course you want to attend.



### 2. Register

After identifying the training course you would like to attend, follow the registration process.



### 3. Participate

You will be trained by one of our specialised Master Trainers or Product Specialists in one of our training centres.



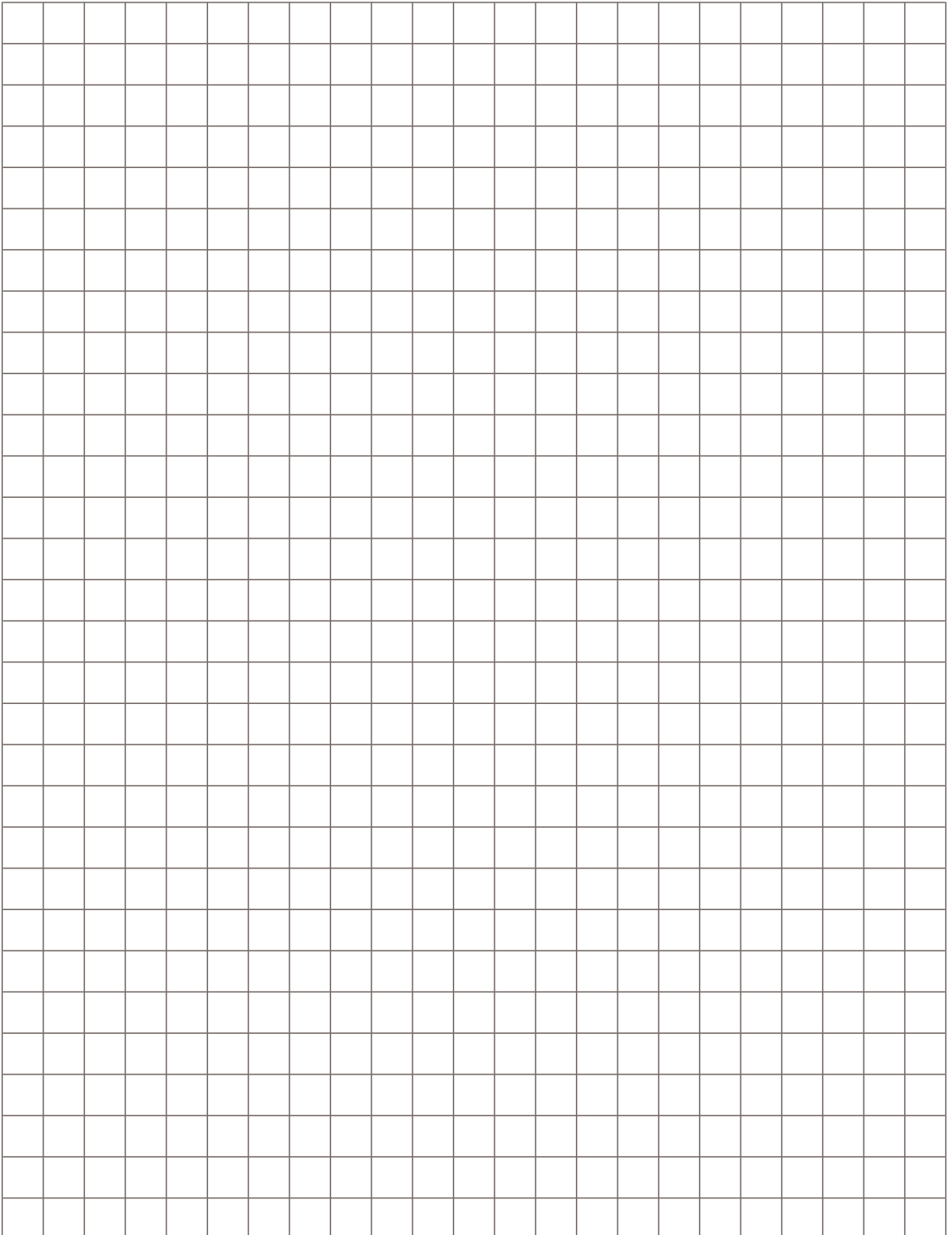
### 4. Get certified

After completing the training, you will receive a Certificate of Completion.

<sup>1</sup> Google Chrome is the recommended web browser for using the Samsung Climate Solutions Partner Portal.



# Notes



**SAMSUNG**  
Climate Solutions

# Find your flow.

Create your perfect environment

Learn more about Samsung Climate Solutions at:  
[samsung-climatesolutions.com](https://samsung-climatesolutions.com)

Copyright © 2024 Samsung Electronics Air Conditioner Europe B.V. All rights reserved. Samsung is a registered trademark of Samsung Electronics Co., Ltd. Specifications and designs are subject to change without notice and may include preliminary information. Non-metric weights and measurements are approximate. All data was deemed correct at the time of creation. Samsung is not liable for errors or omissions. Some images may be digitally altered. All brand, product, service names and logos are trademarks and/or registered trademarks of their respective owners and are hereby recognised and acknowledged.



Samsung Electronics Co., Ltd. participates in the Eurovent Certification Programme (ECP) for Air Conditioners (AC), Variable Refrigerant Flow (VRF) and Liquid Chilling Packages Heat Pump (LCP-HP). To check the ongoing validity of certification, please visit: [www.eurovent-certification.com](https://www.eurovent-certification.com)

**Samsung Electronics Air Conditioner Europe B.V.**

Evert van de Beekstraat 310, 1118 CX Schiphol

P.O. Box 75810, 1118 ZZ Schiphol

+31 (0)8 81 41 61 00

The Netherlands