SAMSUNG

# Product Catalogue

## EHS

2024

# Samsung, find your comfort.

Samsung Climate Solutions is constantly innovating to meet the rapidly evolving needs of our partners and customers alike. While doing so, we are dedicated to satisfying your needs and fulfilling our responsibility towards society and planet, both in the way we work and climate solutions we offer, so that we can continually enhance the world around you.

Brand Value

## A name that you can really trust.

Samsung is one of the most recognized brand and household names. Our services and presence span over kitchen appliances, TV and mobile phones.

Global Citizenship

## We have always been there for you.

Our aim is to empower future generations to achieve their potential and pioneer positive social change, while pursuing innovations that improve the world.

Please visit the Samsung sustainability website (www.samsung.com/sustainability) for more detailed information.

Innovation Leadership

## Relentlessly innovating the things around you.

We provide a wide variety of climate solutions that enhance many aspects of your daily life. And they are continually evolving to suit your changing needs.


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# Foreword

## Our Route to Success

Dear partners,

Our business landscape is changing fast, offering many opportunities. Three actions will turn these opportunities into success – insight to keep one step ahead, growing partnerships, and constant innovation.

The cost of energy continues to impact our domestic heating market. A recent report from McKinsey concluded: "Prices are expected to remain considerably elevated than in past years for the foreseeable future." Meanwhile, the European Green Deal is driving change. One example is The EU Renovation Wave that requires the renovation of 35 million inefficient buildings, including the need for 10 million extra heat pumps by 2027 – a major opportunity for us all.

European consumers have similar priorities. We recently surveyed seven European markets. Three issues united almost everyone: product longevity, energy efficiency, and sustainability.

So, what are our joint business opportunities for 2024?

First, heat pump sales are booming. The International Energy Agency reported that 2022 was a record year in Europe. Sales grew by nearly 40%. Our market-leading products will help you take full advantage of this demand.

Samsung is also the home of SmartThings Energy, the largest smart home platform. By connecting to our heating systems, consumers can monitor and manage energy usage via the app. Through monitoring and managing energy usage through the SmartThings app, consumers can identify areas to reduce energy consumption, thereby cutting costs and contributing to reducing the household's greenhouse gas emissions. It is a prime example of how Samsung adds value for the consumer.

In the spirit of partnership, our innovative EHS Cloud Service empowers technical partners to remotely optimize an EHS unit's performance, and to resolve issues in real-time. Our new EHS Product Selection Tool makes comparing, selecting, and configuring our products much easier.

This tool was part of Samsung Climate Solutions' first appearance at ISH in Frankfurt. The theme was "Solutions for a sustainable future," and I am delighted that at the launch of our flagship EHS Mono HT Quiet, we won the "Design Plus Powered by ISH" award. It is a great example of our unwavering commitment to innovation.

This heat pump is high temperature and low noise, ideal for new-builds, and the residential renovation market. It achieves hot water temperatures of up to 70°C for domestic heating, providing 100% heating performance even in extremely cold weather, with temperatures as low as -25°C. It is Quiet Mark certified, operating at noise levels as low as 35 dB(A).

Also at ISH, we presented our next generation EHS Mono heat pumps, including the EHS Mono R290 that uses the natural refrigerant, propane. This has a Global Warming Potential of just 3 – a significant sustainability commitment. We encourage you to enjoy its warming potential, while making a responsible choice for your home or business. 2024 is shaping up to be an exciting year, and I am confident that together, we will navigate the route to success.

Warm Regards
Wim Vangeenberghe
President SEACE

# Highlights for 2024

## Say hello to our new heat pump featuring R290

Samsung's newest addition to its EHS heat pump line-up, the EHS Mono R290, offers a new home solution for residential homes. The EHS Mono R290 uses R290 as its refrigerant. R290 has a much lower Global Warming Potential (GWP) of only 3 when compared to other refrigerants R32 and R410A. According to the new EU F-Gas regulations, refrigerants must not exceed 150 GWP from 2025.

The EHS Mono R290 is available in a broader range of capacities fitting with varying project requirements – 5, 8, 12, and 16 kW. The 5 and 8 kW units are only 850mm in height, compared to the larger 12 and 16 kW units which measure approximately 1000mm. It complements any outdoor living space with its sleek and compact design.

### Higher hot water temperature

Many older houses in Europe are still using radiators which require a hot water temperature of 65°C or higher to heat rooms effectively. The new EHS Mono R290 combines advanced features to consistently provide hot water of up to 75°C1 for domestic heating purposes. This makes it a suitable heating system replacement in older residential spaces that have been previously dependent on gas boilers for their heating needs. Additionally it can supply domestic hot water of up to 70°C2 when the outdoor temperature is as low as -10°C without using the booster heater.

### Easy installation and servicing

Installation and servicing of the EHS Mono R290 can be done without needing an F-gas certification. Additionally, the outdoor unit of the EHS Mono R290 is designed to be simple to install and maintain. The heat pump's internal parts are easily accessible via the side panel which can be removed simply by undoing 3 screws. This significantly saves time and effort during the installation as well as the servicing process.

### Quiet operation

Powered by a combination of innovative noise reducing technologies, the EHS Mono R290 operates quietly with noise levels as low as 35 d(BA)[3] using a 4-step Quiet Mode. This heat pump's outdoor unit features a double-layered, sound insulation system fitted with a patented Groove Grid Felt design[4], which effectively blocks and absorbs noise produced by compression parts and vibrations.

### Made to work with R290

The EHS Mono R290 uses R290 as a refrigerant instead of the commonly used R32 refrigerant. As R290 refrigerant is being used, the inside components of the unit have been adapted when compared to a regular mono heat pump. The adaptations i.e. Leakage prevention, Leakage detection, Exhaust system, Ignition prevention support the separation of R290 refrigerant and the rest of the system.

### SmartThings energy integration

SmartThings Energy[5] offers the ultimate home energy management systems, and real energy savings through rich insights, energy saving automations, and support for users to move towards a net zero home. Once connected, users can monitor their energy usage and with the saving mode potentially reduce their energy consumption[6].

### Asses malfunction from a distance

The EHS Mono R290 is compatible with the EHS Cloud Service. EHS Cloud Service can provide professionals with a wealth of technical data and insights[7] regarding the EHS device being services. From error reports to malfunction types, and from status checks to energy consumption information. EHS Cloud Service allows professionals to know what's going on at a customer's before even making the trip[7].

1 Leaving water temperature when the outdoor temperature is -10~35°C. Results may vary depending on the actual usage conditions.
2 Domestic hot water (DHW) leaving the DHW tank is 70°C when the outdoor temperature is -10~43°C. If the outdoor temperature is lower than -10°C, a booster heater is required. Results may vary depending on the actual usage conditions.
3 Based on internal testing of the EHS Mono R290 outdoor unit. The noise level is measured 3m away from the front of the outdoor unit, in an anechoic room with an outside temperature of 7°C. Results may vary depending on environmental factors and individual use.
4 Patent No.: P2022-0012826
5 Available on Android and iOS devices. A Wi-Fi connection, Samsung account and an optional Wi-Fi Kit (MIM-H04N) are required.
6 The SmartThings AI Energy mode, when used by the end-user, can provide users with a possibility to save energy and/or costs with regard to their domestic hot water usage based on (repeatable) user patterns. A compatible Samsung Climate Hub is required. All savings are estimates. The actual savings vary and depend on, amongst others, usage, costs and operating conditions. The AI Energy mode may impact the product performance. End user may deactivate the AI Energy mode at any time.
7 Only available on Samsung products which are compatible with this service and to the extent the end-user has agreed to the terms and conditions of the service and consented to the privacy notice applicable. A separate Wi-Fi Kit may be required for the EHS unit.


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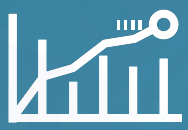
# Highlights for 2024

## Samsung is in a unique position to provide the most dynamic Home Energy Management System

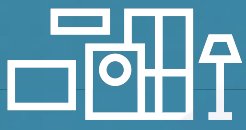
With SmartThings energy, Samsung devices can be switched to run on lower energy consumption with minimal impact on functionality. It also allows the user to monitor monthly energy usage.

Furthermore solar systems from partners can be connected to SmartThings energy and Samsung devices can benefit from this connection. SmartThings energy increases the degree of self consumption thus creating dual benefits: decrease energy bill and accelerate the payback of your solar system.

SmartThings Energy



Intuitive Energy Insights



Wide Device Portfolio

Leading IoT Platform

# Highlights for 2024

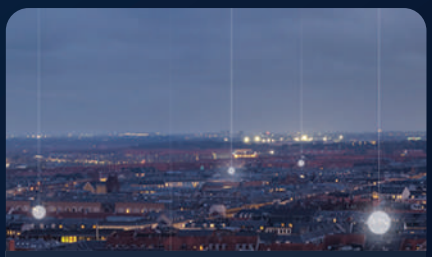
## EHS Cloud Service

### The all-new remote cloud service console for EHS.

Our aim is to provide comfort and convenience for our technical partners to install our products where they're needed, ensure they're in great shape, and keep them in perfect working order. That's why we're launching EHS Cloud Service that helps our technical partners save time & costs.

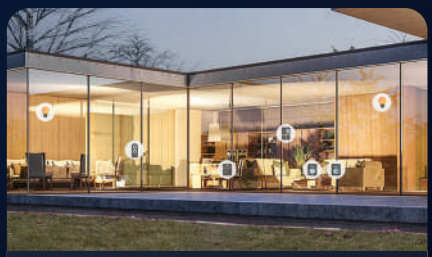
**Your customers**

- Enjoy peace of mind
- Automatic notification in case of issues
- Easily request service



**Technical partners specialist**

- Helps you to save time and costs
- Assess errors from a distance
- Prepare service visits



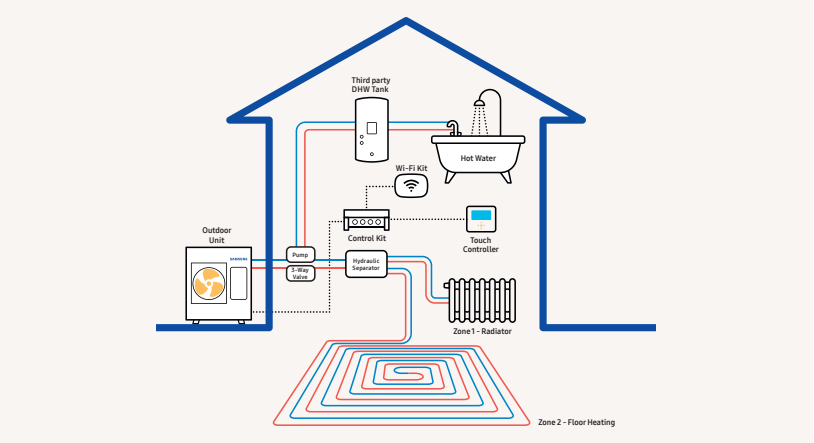
**Technical partners managers**

- Maintain control from a distance
- Keep an overview of issues solved and actions taken by specialists
- Keep overview of connected and served customers

# Product overview

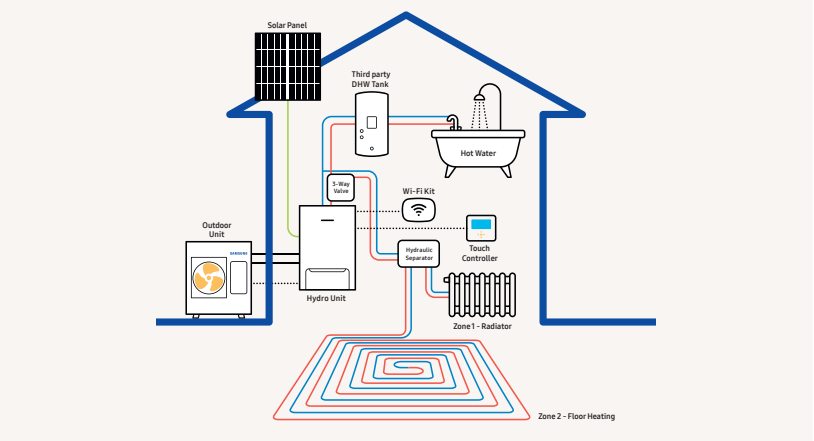
## Mono

The EHS Mono can connect to third party equipment such as a Domestic Hot Water (DHW) tank thanks to the Samsung Mono control kit. The Mono Control kit includes a controller, flow sensor, DHW sensor and leaving and return water sensors.



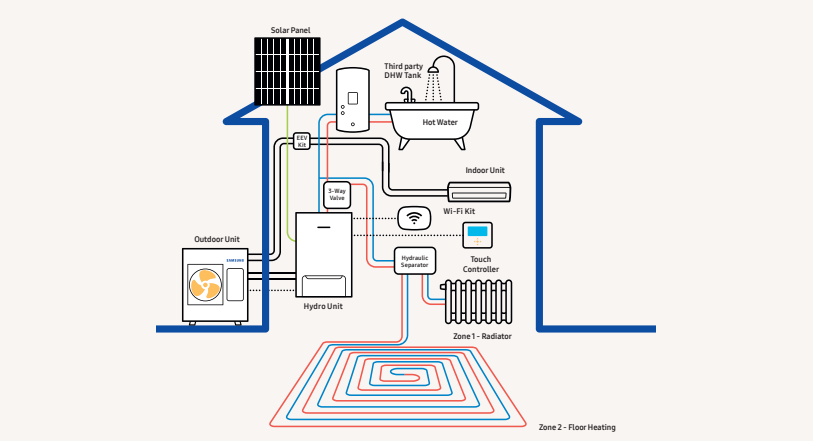

## Split

The EHS Split outdoor unit is connected to a wall-mounted Hydro Unit to combine with a third party Domestic Hot Water (DHW) tank to suit all requirements. When used with the Hydro Unit, the Split enables production of domestic hot water and underfloor heating/ cooling, and heating of radiators.




## TDM Plus

The EHS TDM Plus outdoor unit can connect to a third party Domestic Hot Water Tank (DHW) via a wall-mounted Hydro Unit. TDM Plus offers A2W and A2A home climate comfort.




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. Solar panels, underfloor heating panels, radiators and non-integrated components are not provided by Samsung unless specified otherwise. For more detailed product information and technical specifications, please consult the respective product pages of this Product Catalogue.

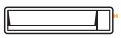
Available Samsung product range

| Indoor Units | | | Outdoor Units | Controls | | |
|---|---|---|---|---|---|---|
|  Tank Integrated Hydro Unit |  Wall-Mounted Hydro Unit |  Third party DHW Tank |  R32 |  Wireless |  Wired |  Centralised |
|  Wall-Mounted |  Duct |  Console |  R410A |  Mono Control Kit |  Wi-Fi Kit | |

Available Samsung product range

| Indoor Units | | | Outdoor Units | Controls | | |
|---|---|---|---|---|---|---|
|  Tank Integrated Hydro Unit |  Wall-Mounted Hydro Unit |  Third party DHW Tank |  R32 |  Wireless |  Wired |  Centralised |
|  Wall-Mounted |  Duct |  Console |  R410A |  Mono Control Kit |  Wi-Fi Kit | |

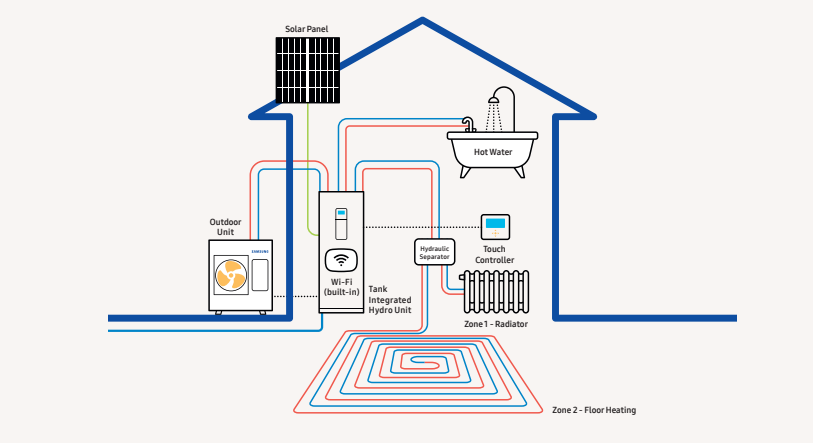
Available Samsung product range

| Indoor Units | | | Outdoor Units | Controls | | |
|---|---|---|---|---|---|---|
|  Tank Integrated Hydro Unit |  Wall-Mounted Hydro Unit |  Third party DHW Tank |  R32 |  Wireless |  Wired |  Centralised |
|  Wall-Mounted |  Duct |  Console |  R410A |  Mono Control Kit |  Wi-Fi Kit | |

# Product overview

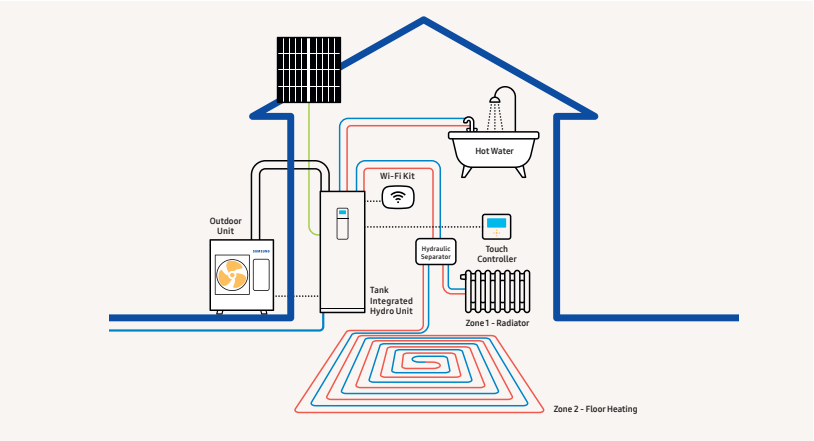
## ClimateHub Mono (Built-in Wi-Fi)

The Climate Hub Mono built-in Wi-Fi[1] configuration has a single outdoor unit that includes the hydronic system, making it easy to install and use. The system's potential can be maximised by connecting to Smart Grid or Solar Power (PV).



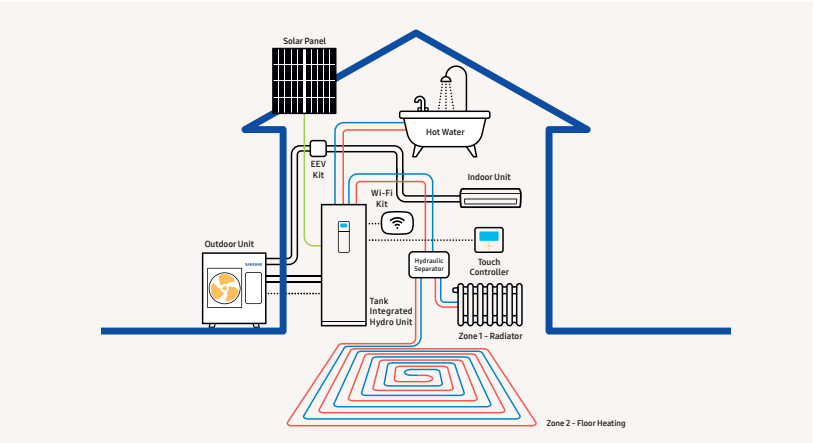

## ClimateHub Split

The ClimateHub Split configuration has a single outdoor unit, connected by refrigerant pipes to the tank integrated hydro unit.
To maximise its potential, the system can be connected to Smart Grid or Solar Power (PV).



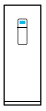

## ClimateHub TDM Plus

The TDM Plus system is an 'All-In-One' Air-to-Water (A2W) and Air-to-Air (A2A) system for a complete home climate solution. It can be used throughout the year for cooling and heating to meet a variety of different user situations and needs. It enables underfloor heating/cooling and radiator heating, as well as offering A2A cooling support with various options for air conditioning. The system's potential can be maximised by connecting to Smart Grid or Solar Power (PV).




[1] The built-in Wi-Fi is only applicable for the ClimateHub Mono.
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. Solar panels, underfloor heating panels, radiators and non-integrated components are not provided by Samsung unless specified otherwise. For more detailed product information and technical specifications, please consult the respective product pages of this Product Catalogue.

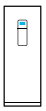
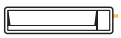
Available Samsung product range

| Indoor Units | | | Outdoor Units | Controls | | |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| Tank Integrated Hydro Unit | Wall-Mounted Hydro Unit | Third party DHW Tank | R32 | Wireless | Wired | Centralised |
|  |  |  |  |  |  | |
| Wall-Mounted | Duct | Console | R410A | Mono Control Kit | Wi-Fi Kit | |

Available Samsung product range

| Indoor Units | | | Outdoor Units | Controls | | |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| Tank Integrated Hydro Unit | Wall-Mounted Hydro Unit | Third party DHW Tank | R32 | Wireless | Wired | Centralised |
|  |  |  |  |  |  | |
| Wall-Mounted | Duct | Console | R410A | Mono Control Kit | Wi-Fi Kit | |

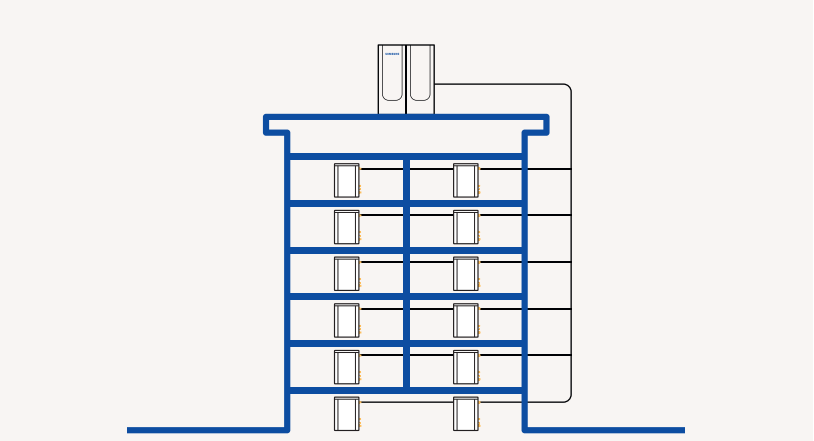
Available Samsung product range

| Indoor Units | | | Outdoor Units | Controls | | |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| Tank Integrated Hydro Unit | Wall-Mounted Hydro Unit | Third party DHW Tank | R32 | Wireless | Wired | Centralised |
|  |  |  |  |  |  | |
| Wall-Mounted | Duct | Console | R410A | Mono Control Kit | Wi-Fi Kit | |

# Product overview

## VRF (DVM)

A Samsung VRF air conditioning system offers high installation flexibility with DVM S Eco and DVM S2 platform outdoor units, which can connect up to 64 indoor units. The system is ideal for multi-family buildings and central heating solutions when installed together with DVM Hydro High Temperature/High Efficiency units that caters to various consumer requirements like cooling, heating or hot water as needed.



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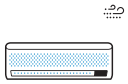
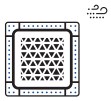
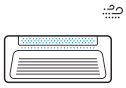
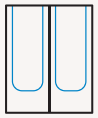
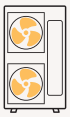
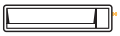
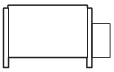
| Available Samsung product range | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Indoor units | | | | | Outdoor units | | Controls | |
|  |  |  |  | |  |  |  |  |
| Wall-Mounted | 360 Cassette | 4-Way Cassette | 1-Way Cassette | | VRF | Mini VRF | Wireless | Wired |
|  |  |  |  |  |  |  |  | |
| Duct | Floor | Ceiling | Ventilation unit | Console | Water system | Hydro unit | Centralised | |

# Table of contents



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 technical information, please consult the Samsung Climate Solutions Partner Portal at **partnerhub.samsung.com/climate** or contact your direct Samsung representative.

# Samsung Climate Solutions at a glance

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 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:

- Cooling
- Heating
- Hot water
- Ventilation

## Our market-centric product ranges

| | Home | Apartments | Hotel | Retail | Office | Education | Restaurant |
|---|---|---|---|---|---|---|---|
| Residential | RAC \| FJM | DVM | | | | | |
| Light Commercial | CAC \| FJM | | | CAC | | | |
| Commercial | | VRF (DVM) \| HVM \| ERV | | | | | |
| Heating | EHS | | | | | | |
| Controls | CONTROLS | | | | | | |

## Services we provide to empower our partners

- Expert training
- Project design
- Technical support
- Marketing platforms
- Spare parts

# Corporate and Technology milestones that make us proud

**1974**

Samsung introduces its first air conditioner.

**2005**

Samsung Electronics enters the European market for commercial air conditioning.

**2017**

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

**2014**

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

**2015**

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

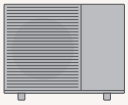
**2017**

Samsung 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.

**2022**



Samsung introduces its EHS Mono High Temperature (HT) Quiet with the aim to service the growing home renovations market and expand the offer for new buildings. Its aesthetic design won us the iF Design Awards 2023.

# Our flagship innovations that enrich people's lives

WindFree™
WindFree™ Cooling

SmartThings
Wi-Fi Control

b.IoT
Building Management System

# 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

## Samsung reference projects in the spotlight

# Homeowner Renovation Project, Belgium

**CEO: Mr. Jonas Staelens**
Project: Replacement of gas solution – Homeowner, Belgium
Installer: Klima Staelens

"One of our end consumers, a homeowner, came to us with the need to replace his existing gas solution with a more, silent and energy-friendly heating solution.

His intention is to gradually upgrade his energy providing devices, starting with a replacement of gas to nurture their existing floor heating and cooling, Samsung's EHS Mono HT Quiet came out to be the ideal solution. In particular the Quiet mode in combination with the sleek finish of the material, its color and its overall design made both the end user and us happily choose for Samsung's EHS Mono HT Quiet. Application: Residential Renovation Samsung products installed: EHS Mono HT Quiet."

## Application

Residential Renovation

## Samsung products installed

EHS Mono HT Quiet

## Samsung reference projects in the spotlight

# Residential Apartments

## Project Meadow, Belgium



**Project manager: Mr. Jeroen Vercammen**
Project: Meadow – Belgium
Installer: Belcotec

"The challenge in this 68-apartment sized residential new development project was to find a central heating system that is, silent, performs well 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."

## Application

Residential Apartments

## Samsung products installed

DVM S2

DVM Hydro Unit

BACnet

# Regulations and standards

Samsung strives to provide customers with new product experiences, contributing to the transition to a sustainable future for the global community through innovative products and technology. We monitor applicable environmental standards and laws and regulations in the context of our climate solutions operations. Samsung also conducts ongoing research and development activities across product development, production, distribution, use and disposal phases.

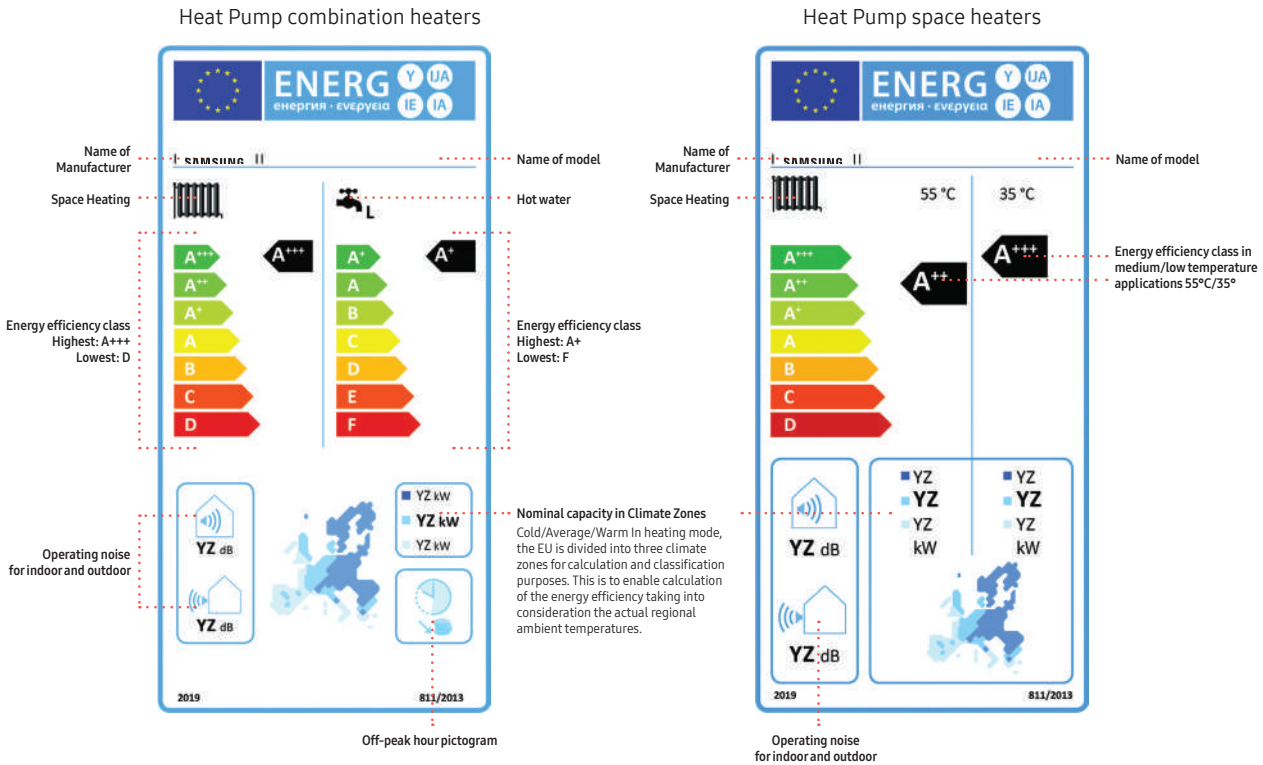
## Energy Label

Space heaters, combination heaters, packages of space heater, temperature control and solar device and packages of combination heater, temperature control and solar device are subject to Energy labelling EU Regulation No. 811/2013 and Ecodesign EU Regulation No. 813/2013 requirements.

As of September 2019, the energy efficiency scale for seasonal space heating ranges from A+++ to D, with A+++ being the most efficient. The water heating energy efficiency scale for the declared load profile for combination heat pumps ranges from to A+ to F, with A+ being the most efficient.

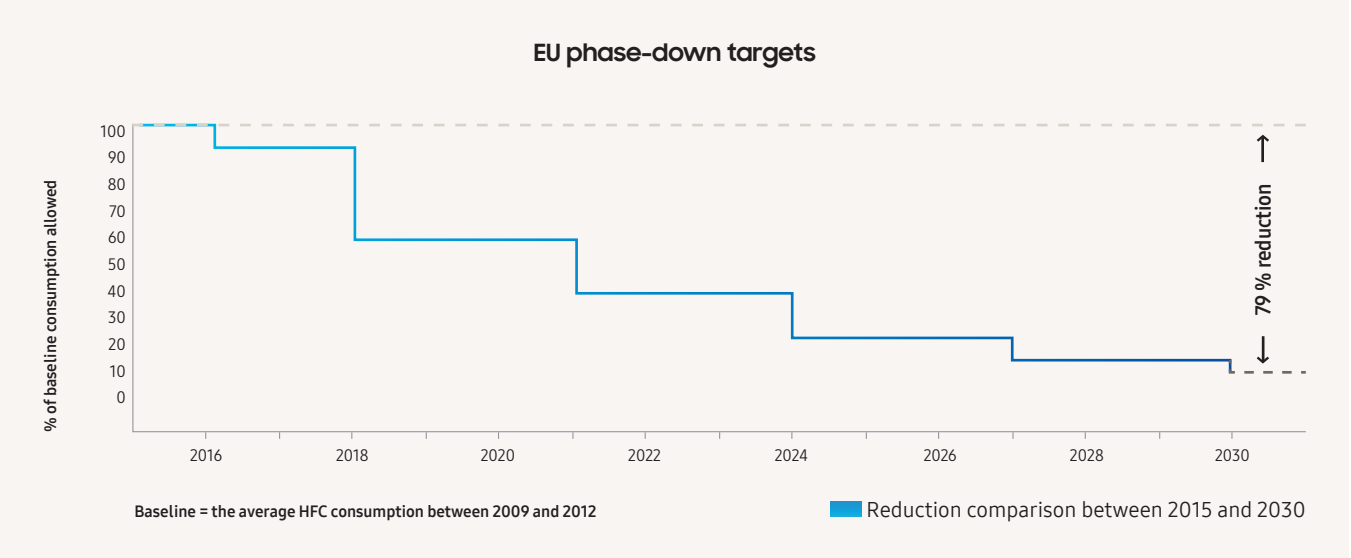
The energy labels should provide minimum necessary information such as; supplier's name, product model code, the rated output under three European climates (average, colder and warmer) for medium- and/or low-temperature applications (55 °C and 35 °C), European map displaying the three temperature zones, the sound power level indoors and/or outdoors. In addition, just for combination heat pumps, the energy label should also include a pictogram showing to be able to work only during off-peak hours.

### Energy Label



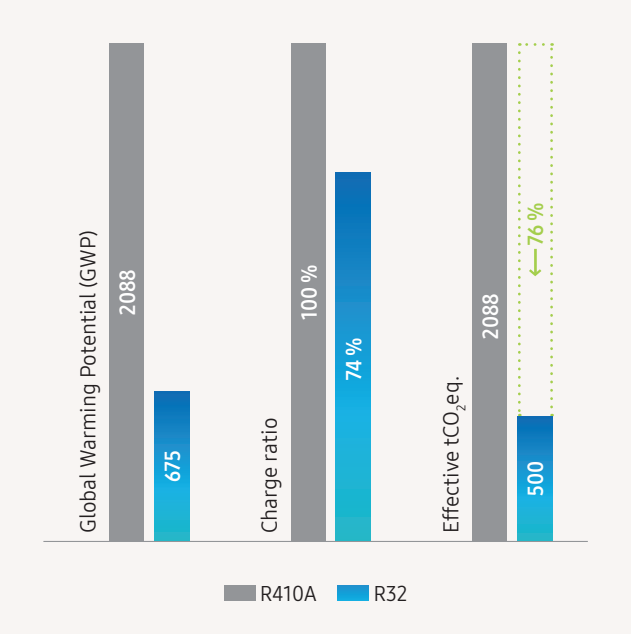
# F-Gas regulation

The EU aims to reduce the environmental impact of F-gases through the reduction of the $CO_2$ 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 $CO_2$ 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 encourage the industry and its users to transition to refrigerants with a lower GWP. Samsung is contributing to the transition towards lower GWP refrigerants, such as R290, and will continue to invest in alternatives.




# Refrigerants

The R290 natural refrigerant helps conserve the ozone layer and has a low impact on global warming. It has an Ozone Depletion Potential (ODP) of zero and a low Global Warming Potential (GWP) of 3, which is much less than conventional R32 or R410a refrigerants. While refrigerants are an essential part of today's air conditioners, R290 would have up to 99 % lower environmental impact than R32 and R410A, if leaked into the atmosphere. It has an Ozone Depletion Potential (ODP) of zero, a high refrigeration capacity and a high thermal conductivity; meaning a high efficiency and a reduction in charging volume.




[1] Comparison between R410A and R32 GWP. Source: European Commission.

# 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.


DO IT

# Certifications

## Heat Pump KEYMARK Certificate

The Heat Pump KEYMARK is a voluntary, independent, European certification mark (ISO type 5 certification) for all heat pumps, combination heat pumps and hot water heaters (as covered by Ecodesign, EU Regulation 813/2013 and 814/2013). It is based on independent, third-party testing and demonstrates compliance with product requirements as set in the Heat Pump KEYMARK scheme rules and with efficiency requirements as set by Ecodesign. It is aimed at certifying the product performances declared by the manufacturers.

The Heat Pump KEYMARK scheme is owned by the European Committee for standardization (CEN). The certificates are granted by independent certification bodies to products fulfilling all requirements of the scheme.

Samsung's EHS and the ClimateHub range are certified with a Heat Pump KEYMARK. This certification is recognised in a number of European countries which include France, Germany, the United Kingdom, Slovakia and Czech Republic.

## Eurovent Certificate

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 Residential Air-Conditioning (RAC), Multi Split (FJM), Commercial Air Conditioning (CAC), Digital Variable Multi S (DVM S) 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**

# Certifications

## Quiet Mark Certificate

Quiet Mark is the independent global certification programme associated with the UK Noise Abatement Society charitable foundation (est. 1959). Through scientific testing and assessment Quiet Mark identifies the quietest products in multiple categories spanning many sectors, including: home appliances and technology, building sector materials and commercial sector products.

Quiet Mark certification is the unique consumer and trade champion mark of approval and resource platform. It provides reliable and independent information about the sound a product makes and approved noise reduction performance before purchase with the primary focus to improve health and wellbeing. Stimulating manufacturing worldwide to prioritizes responsible acoustic design to reduce noise pollution.

Samsung's EHS Mono High Temperature (HT) Quiet has been certified by Quiet Mark for its low noise. The Quiet Mark is applicable for UK & EU territories only.

# Innovations in detail

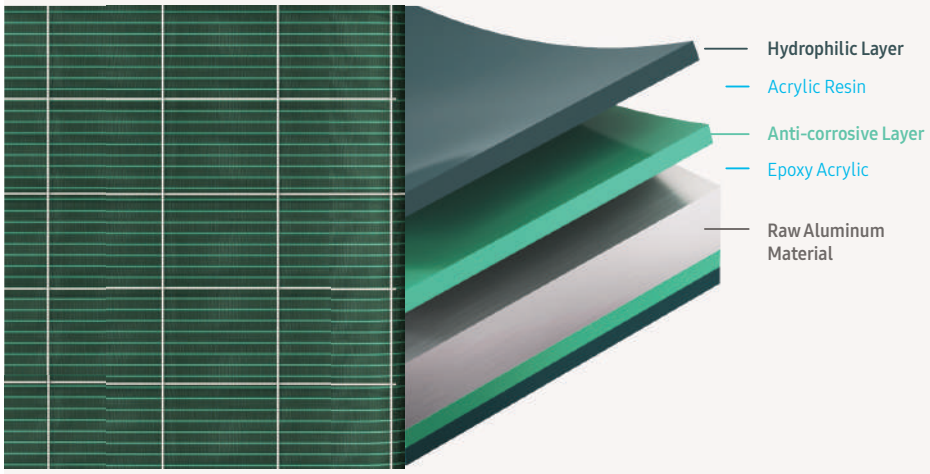
## EHS

### Energy Usage

The Samsung EHS includes a range of advanced functions that help optimize energy usage and are independently certified as delivering enhanced energy efficiency as compared to the previous models.

### Various Functions for Energy Saving

The 2-Zone Control enables simultaneous heating with two different water temperature demand. The Photovoltaic Enabled feature checks the status of solar panels and adjusts the temperature to reduce network electricity usage. While the Smart Grid Ready feature helps users take advantage of economically efficient and sustainable power supply options.


### Durafin™ Ultra

The Samsung EHS outdoor unit's Durafin™ Ultra has an anti-corrosive layer of epoxy acrylic and a hydrophilic layer of acrylic resin that disperses water and reinforces its corrosion-resistance. Its improved quality was proven using the Salt Spray Test (SST) over a period of 2,280 hours[1] with no leakage of refrigerant[2].

[1] Based on testing by a third party lab in accordance with ASTM B117, an official test method. For more details, please contact Samsung's technical professionals.
[2] Based on testing by a third party lab, applying the actual pressure of refrigerant for 1 minute, after a Salt Spray Test (SST) of over 2,280 hours.

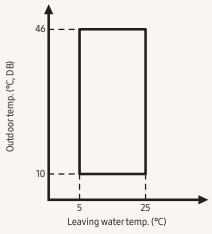
## Wide Operation Range

EHS Wall-mounted hydro units can discharge cold and hot water from 5 to 55 °C (leaving water temperature), and the ClimateHub (Tank Integrated Hydro Unit) can store up to 70 °C of water (due to booster heater operation).

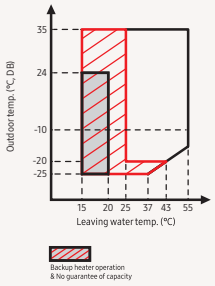
EHS TDM Plus Air-to-Air indoor units provide you with a quick individual heating of -25 to 24°C and cooling 10 to 46 °C for each room, as well as Air-to-Water heating of -25 to 35°C and cooling 10 to 43 °C. For EHS Mono & EHS Split with R32 refrigerant there is a higher Leaving Water Temperature (LWT) and with the EHS Mono HT Quiet there is a higher Leaving Water Temperature (LWT) at even lower ambient.

### Air-to-Water Operation range

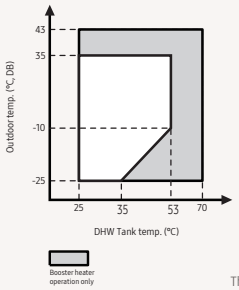
**Cooling**



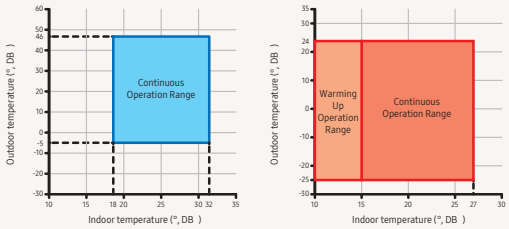

**Heating**



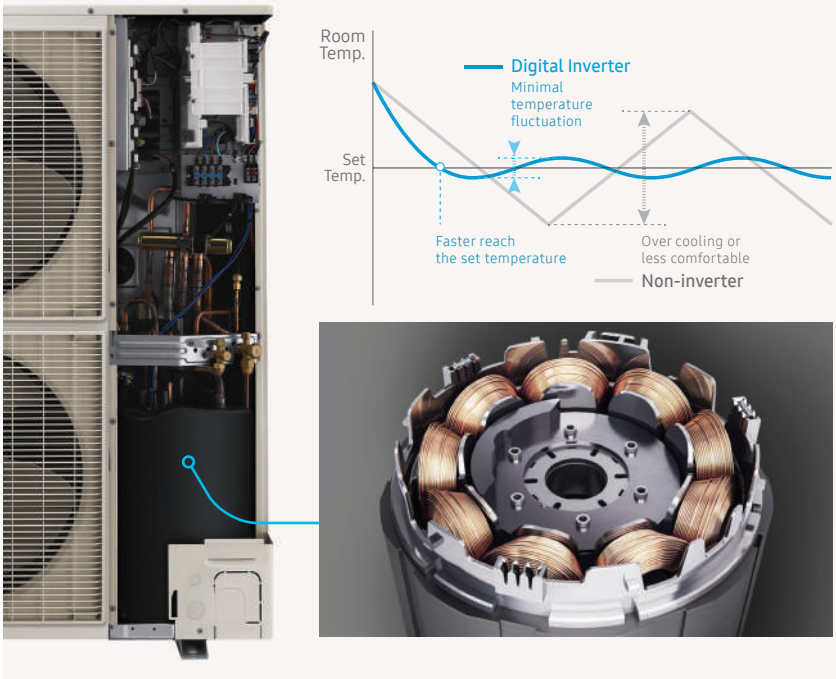

**DHW (Domestic Hot Water Tank)**




### Air-to-Air Operation range




The graphs represent TDM Plus. For Mono and Split, please contact your direct Samsung representative.




## Digital Inverter Technology

Unlike conventional fixed-speed compressors, which frequently shut off and switch on, the compressor automatically adjusts its speed in response to changes in the surrounding room temperature. So it helps to ensure optimum comfort by maintaining the desired temperature with little fluctuation. Additionally, the digital inverter technology optimizes power usage which reduces energy consumption.

# Innovations in detail

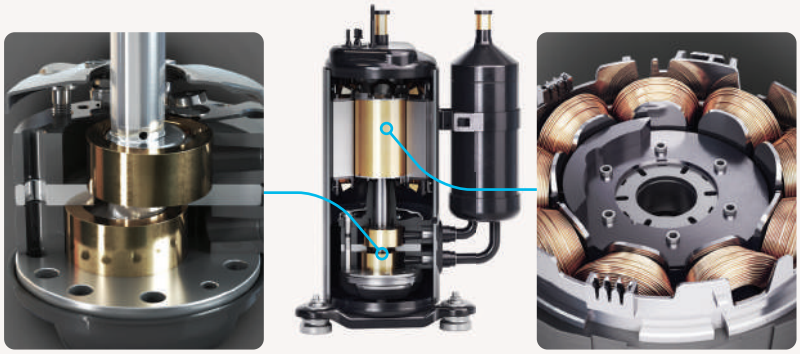
## EHS

### Twin Rotary BLDC Compressor

The smart compressor design and premium moving parts of the EHS deliver a balanced performance, fully complying with EU regulations for enhanced efficiency[1].

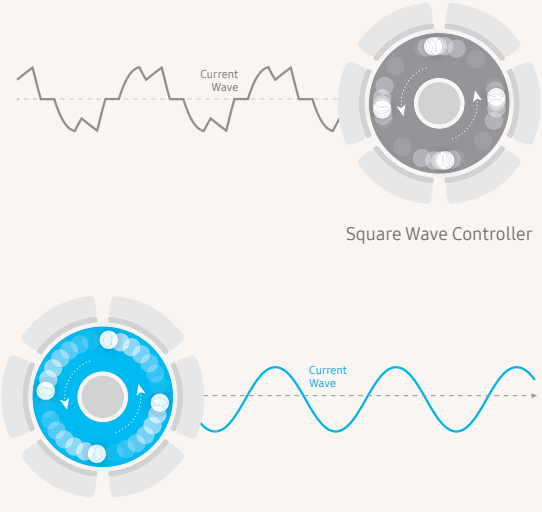
The Twin Rotary BLDC Compressor of the EHS outdoor unit offers you greater efficiency and reliability. Its twin cams and two balance weights create low levels of vibration, contributing to a smoother and quieter all-round performance. The use of high quality moving parts, such as robust bearings and premium matching rollers and vanes, also ensures much better stability and durability.

[1] All Samsung EHS products comply to EU EcoDesign's Minimum Energy Performance Standards (MEPS).



Twin Rotary Compressor

BLDC Rotor




### Quieter Current Wave

The combination of superior insulation and low vibration generates less noise, so it creates a comfortable atmosphere. Due to Samsung's newly developed Sine Wave Controller technology you can hear much less noise when the air conditioner is running as compared to previous versions. Unlike a conventional Square Wave Controller, which emits a noticeable sound, it produces current waves that have a smooth curve with no spikes or ripples. This significantly reduces the noise created by the outdoor unit, so it operates very quietly[1] and creates less disturbance.

[1] Based on Samsung's internal test results compared with the Samsung AR09FSSKABENEU model. Individual results may vary.

## Double-layered Sound Insulation

The compressor is fully covered in double-layered sound insulation material that absorbs and minimizes noise. When it is applied, the sound becomes about 3 dB(A) quieter[1]. So it operates quietly and discreetly, while still delivering high-quality performance.

[1] When testing Split 6 kW and 9 kW models based on internal testing in Samsung Korea. Results may vary depending on environmental factors and individual use.


## Anti-Freeze protection control

The Samsung EHS unit which provides the indoors with heating energy is installed outdoors to extract heat from the ambient air. Therefore, whenever the compressor operation is stopped during ambient conditions below 0 °C, the water inside the pipes may freeze and expand, this can damage the water pipes and the components.

In order to prevent this, the Anti-Freeze Protection control function is activated by default. In non-operation mode, if the outside temperature drops to 3 °C or below, the pump on the water pipe side is forcibly operated to prevent freezing in the water pipe. For external water pipes and Anti-Freeze protection feature use propylene glycol with a toxicity rating of Class 1 as listed in Clinical Toxicology of Commercial Products, 5th Edition[1].

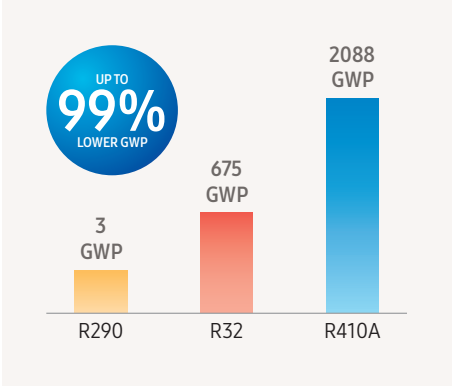
[1] Please refer to the installation manual for detailed anti-freeze specifications. Anti-Freeze Protection control should be used only for auxiliary measure in addition to glycol mixture.

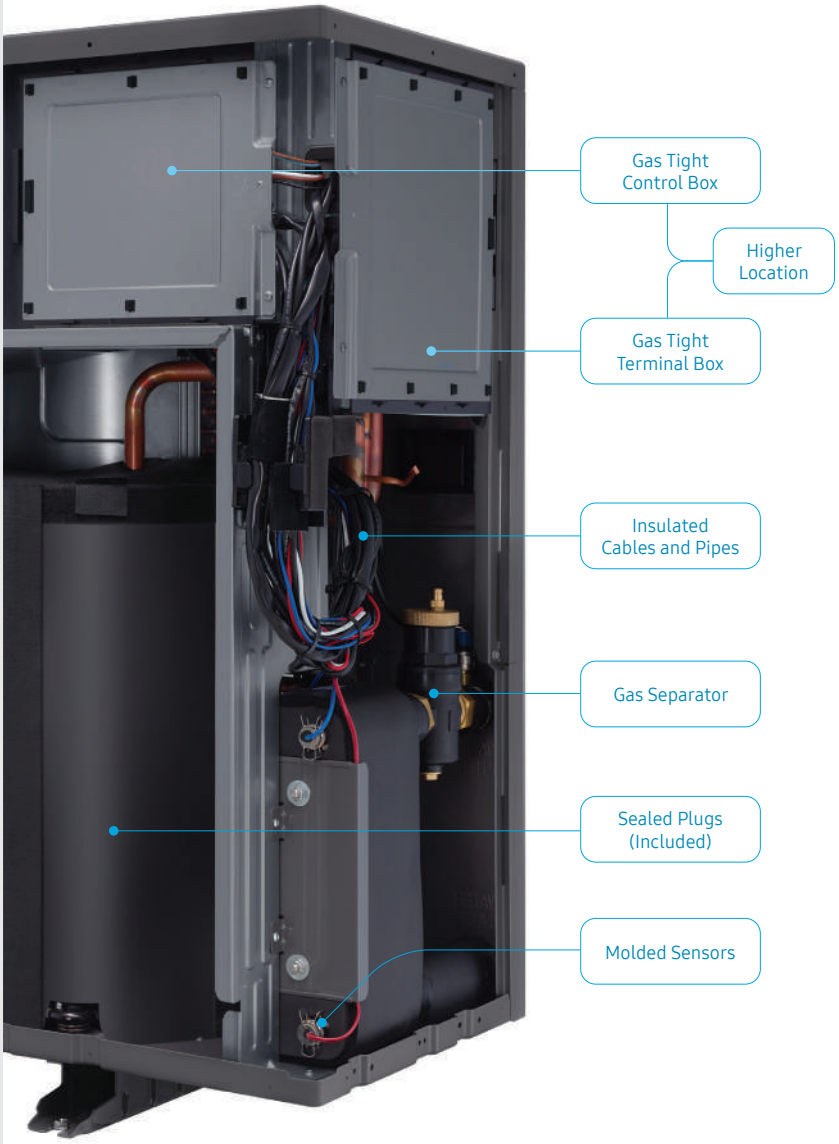
# Innovations in detail

## EHS Mono R290

### Low Global Warming Potential of only 3

With EHS Mono R290, Samsung is offering an innovative solution for residentials homes. The R290 refrigerant has a much lower Global Warming Potential (GWP) compared to other refrigerants. Only 3. New EU F Gas regulations mean refrigerants must not exceed 150 GWP from 2027.




LAYER 1
**Leakage Prevention**

LAYER 2
**Leakage Detection**

LAYER 3
**Exhaust**

LAYER 4
**Ignition Prevention**

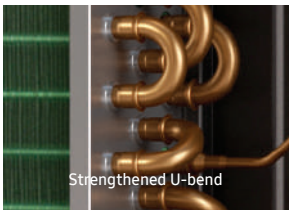
[1] GWP by refrigerant: R290 = 3, R32 = 675, R410A = 2088.

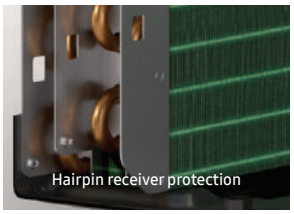
## Made to work with R290

As R290 refrigerant is being used, the inside components of the unit have been adapted when compared to a regular mono heat pump. These adaptations support the separation of R290 refrigerant and the rest of the system. The EHS Mono R290 is designed in a way that alleviates pressure in the pipes and the plugs are sealed to prevent ignition.

A **robust design** alleviates pressure in the pipe to prevent gas escaping.

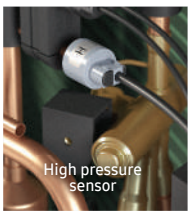
- Reduction of parts that may cause a leakage
- Enhanced thickness of the U-bend
- Hairpin receiver protection
- Freezing and bursting prevention control

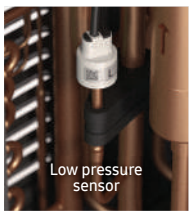

Strengthened U-bend

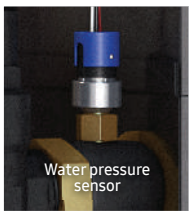

Hairpin receiver protection

**Sensors** monitor the refrigerant and water pressures to detect leakages.

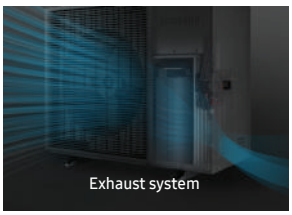
- Sensor for high pressure compression
- Sensor for low pressure compression
- Sensor for water pressure


High pressure sensor


Low pressure sensor


Water pressure sensor

A **forced exhaust system** ventilates the inside of the outdoor unit. An **Air Separator** in the leaving water pipe prevents the leaked gas from flowing into the house.


Exhaust system


Gas Separator

Potential **ignition sources** are **sealed** and **located higher up** in the outdoor unit.


Gas tight control box

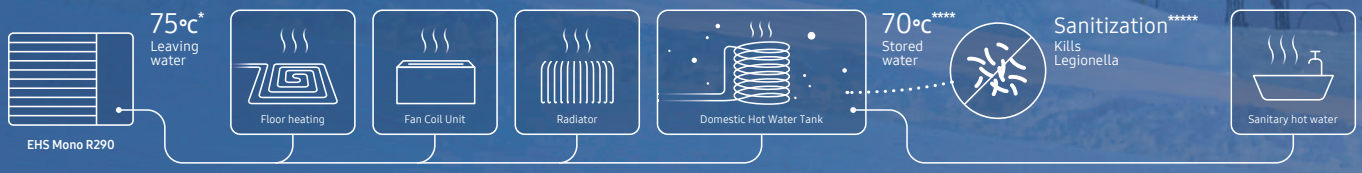

Gas tight control box (Inside)

# Innovations in detail

## EHS Mono R290

### Higher Hot Water Temperature

Many older houses in Europe are still using radiators which require a hot water temperature of 65°C or higher to heat rooms effectively. The new EHS Mono R290 can consistently provide hot water of up to 75°C[1] for domestic heating purposes. The ability of the EHS Mono R290 to provide consistent hot water makes this heat pump a suitable heating system replacement in older residential spaces that have been previously dependent on gas boilers for their heating needs. Additionally, it can supply domestic hot water of up to 70°C[2] when the outdoor temperature is as low as -10°C without using the booster heater.

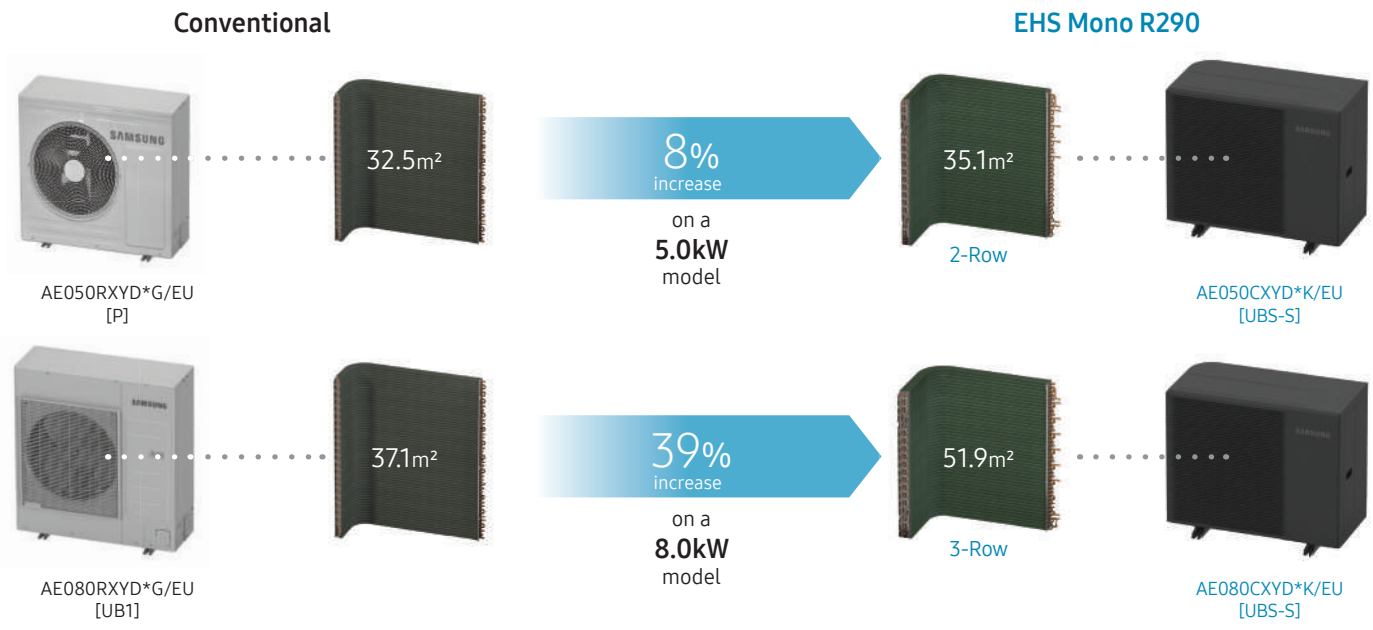



[1] Leaving water temperature, when the outdoor temperature is between -15°C ~ 43°C. Results may vary depending on the actual usage conditions.
[2] Domestic hot water (DHW) leaving the DHW tank is 70°C when the outdoor temperature is -10~43°C. If the outdoor temperature is lower than -10°C, a booster heater is required. Results may vary depending on the actual usage conditions.

Key features to achieve Hot Water Temperature are Enlarged heat transfer area and Strengthened compression parts.

### Enlarged Heat Transfer Area

The EHS Mono R290 has an enlarged heat exchanger that is capable of transferring more heat at once compared to a conventional outdoor unit. Its heat transfer area is up to 13% larger[1]. As a result, it can consume less energy to achieve the same cooling and heating performance.




[1] Based on Samsung's measurements on an EHS Mono HT Quiet (AE120BXYDGG/EU) model compared to a conventional outdoor unit (AE120RXYDGG/EU) with the same capacity.

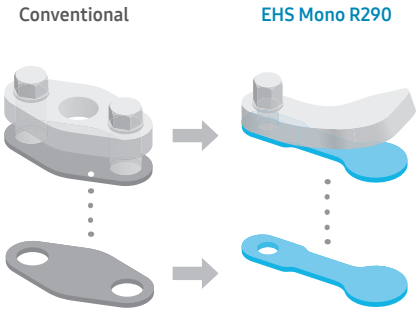
## Strengthened Compression Parts

To endure the higher pressure created by a new Scroll Compressor, the EHS R290 Mono uses strengthened compression parts. They have increased compression ratio1, while still maintaining the efficiency and reliability of the compressors.

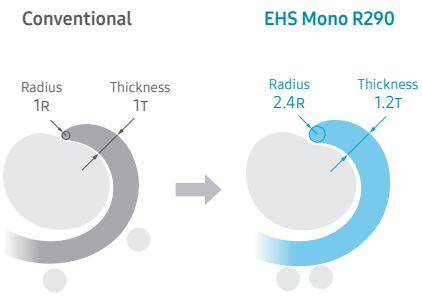
[1] Compression ratio = Discharge pressure/Suction pressure. Based on internal testing on an EHS Mono HT Quiet outdoor unit, compared to a conventional EHS outdoor unit. As a result, the discharger pressure has increased from 43 to 55kgf/cm²G, and the compression ratio has increased from 13 to 17.

Compression Ratio

13.0 → 16.5*** increase


The design and thickness of the valves have been modified to improve their strength and responsiveness.

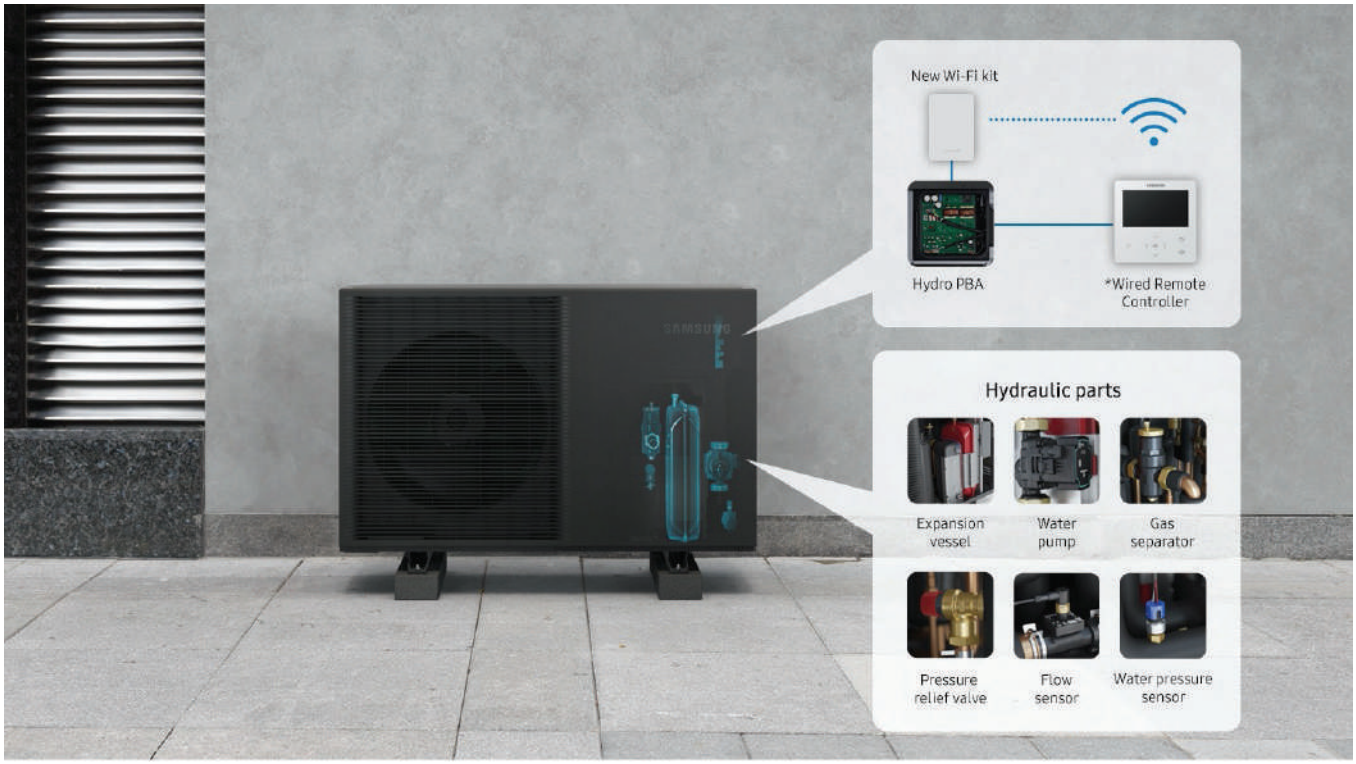

The thickness of the center wrap has been increased to improve its stress endurance by 45%.

# Innovations in detail

## EHS Mono R290 With Pump

### Convenience in Installation

Install the system and check the water pressure easily. All the parts for the water piping, like the pump and expansion tank, are fitted inside **the unit**, which reduces the installation time and space. And a water pressure sensor lets you conveniently monitor the water pressure on a remote controller.

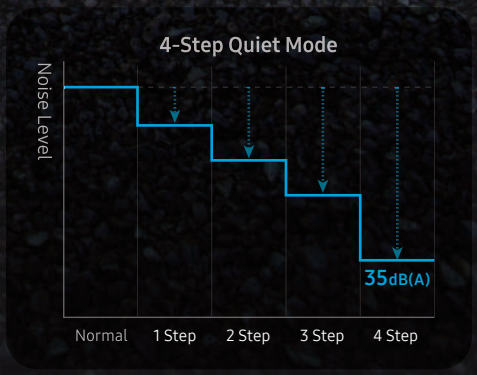



SAMSUNG

DESIGN AWARD 2023

# Quiet Operation

Powered by a combination of innovative noise reducing technologies, the EHS Mono R290 operates quietly with noise levels as low as 35 d(BA)[1] using a 4-step Quiet Mode.




[1] Based on internal testing of the EHS Mono R290 outdoor unit. The noise level is measured 3m away from the front of the outdoor unit, in an anechoic room with an outside temperature of 7°C. Results may vary depending on environmental factors and individual use.

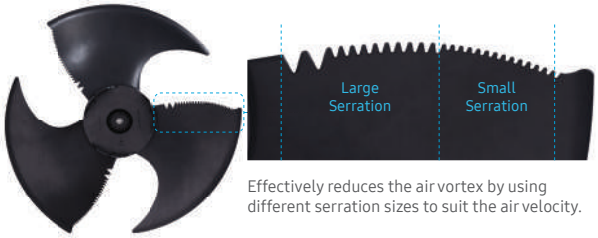
# Innovations in detail

## EHS Mono R290

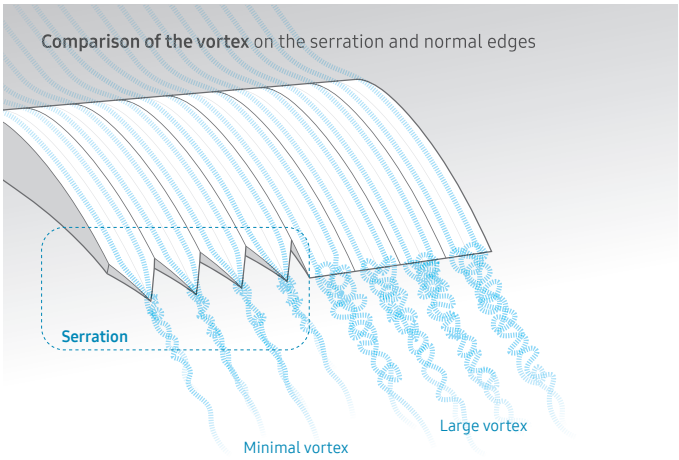
Key features to achieve Low Noise are the Multi-Serration Fan, 2-layered insulation with groove grid felt, Spring grommet for the compressor mounting and Reinforced crank shaft in the compressor.

### Multi-serration Fan[1]

The combination of large serration on the inner part and a small serration on the outer part minimizes the air vortex around the wing tip and significantly reduces the noise generated by the movement of the fan.

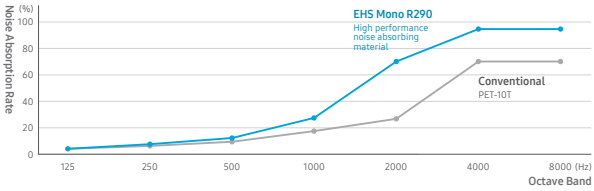



Effectively reduces the air vortex by using different serration sizes to suit the air velocity.




### 2-layered Insulation with Groove Grid Felt

This heat pump's outdoor unit features a double-layered, sound insulation system fitted with a patented Groove Grid Felt design[2], which effectively blocks and absorbs noise produced by compression parts and vibrations.

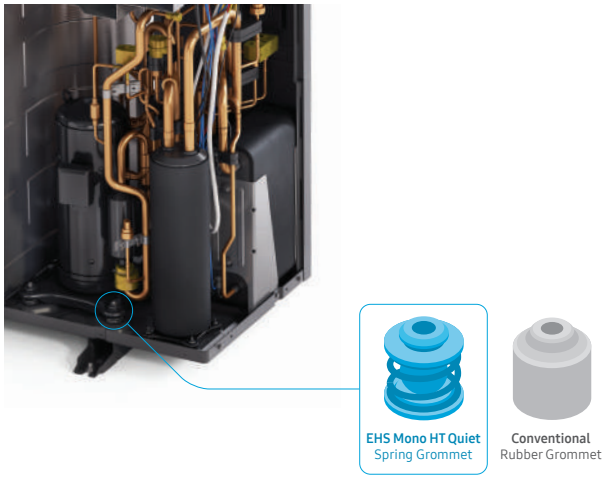




[1] Based on internal testing of the Noiselite-600G, compared to the PET-10T. The results only relate to individual materials and not the whole product, and may vary depending on the actual usage conditions.
[2] Patent No.:P2022-0012826.

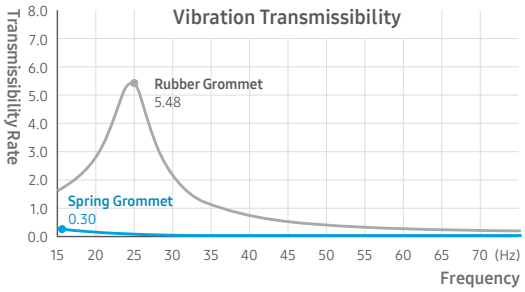
# Innovations in detail

## EHS Mono R290




### Spring Grommet for the Compressor Mounting

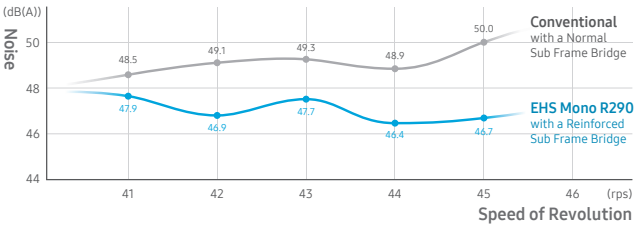
Spring Grommets (instead of rubber grommets) are used for the compressor mounting, thus reducing the vibration transfer rate by 95%[1]. The compressor utilizes a reinforced crankshaft[2], which decreases low frequency resonant noise, while the outdoor unit employs a multi-serration fan which significantly reduces the noise it generates by minimizing the air vortex.

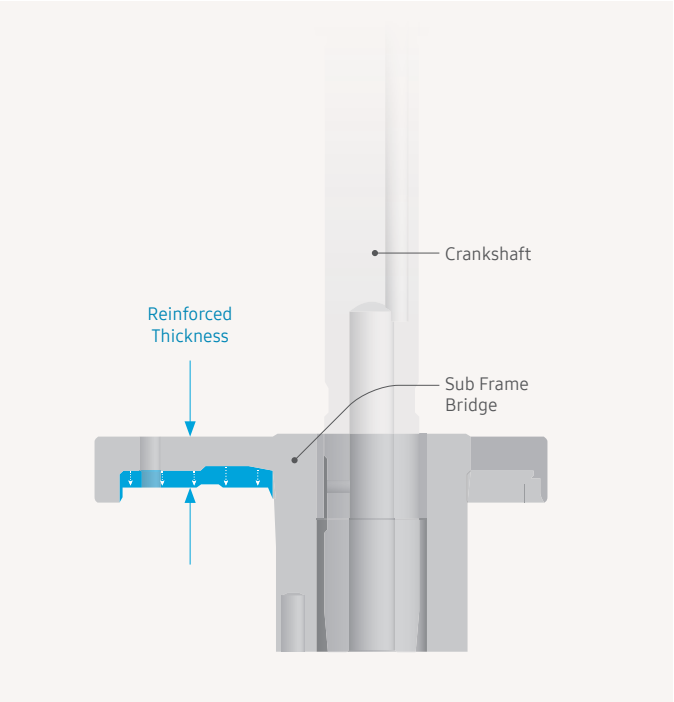



[1] Based on a computational simulation in accordance with the theoretical formula of the spring grommet (EHS R290 Mono unit), compared to the rubber grommet (EHS R32 Mono unit). Results may vary depending on the actual usage conditions.

### Reinforced Crank shaft in the Compressor

The compressor in the EHS Mono R290 Quiet introduces a reinforced crankshaft, with a greater diameter and thickness, to shift low frequency noise to a high frequency domain. As a result, it reduces resonant noise of low frequency by approximately 21%[1].




[1] Based on internal testing. In Quiet Mode at 39rps (revolutions per second), noise was reduced from 54.2dB(A) to 42.5dB(A). Results may vary depending on the actual usage conditions.

# Innovations in detail

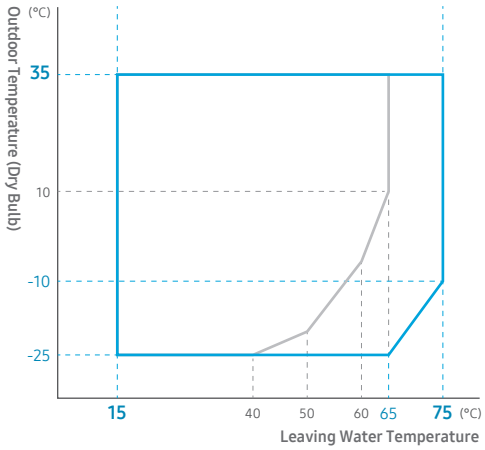
## EHS Mono R290


### Reliable Heating

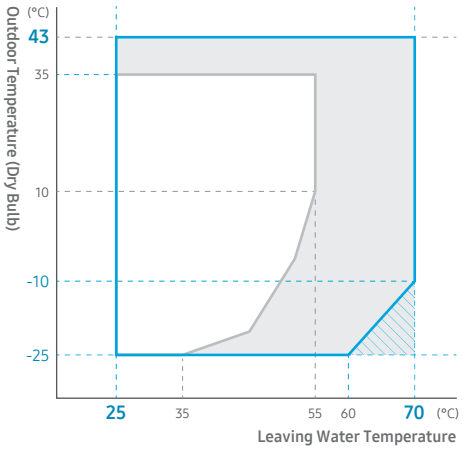
Adverse weather conditions can impact the life span and performance of outdoor units. The EHS Mono R290 is both durable and capable of operating effectively in hot and cold environments. The chassis and heat exchanger are corrosion resistant; its base is designed to drain condensed water even in the coldest temperature and it includes antifreeze protection systems to prevent water from freezing and bursting the pipes.

## Operates across a Wider Temperature Range

The EHS Mono R290 outdoor unit operates effectively across a much wider range of ambient temperatures. A conventional EHS Mono can generate hot water that is up to 65°C when the outdoor temperature is above 10°C and 40°C when it is -25°C outside. By comparison, the EHS Mono R290 provides hot water of 70°C[1], when the outdoor temperature is as low as -10°C[2] and can even generate hot water of up to 65°C if the ambient temperature drops to -30°C.[3]



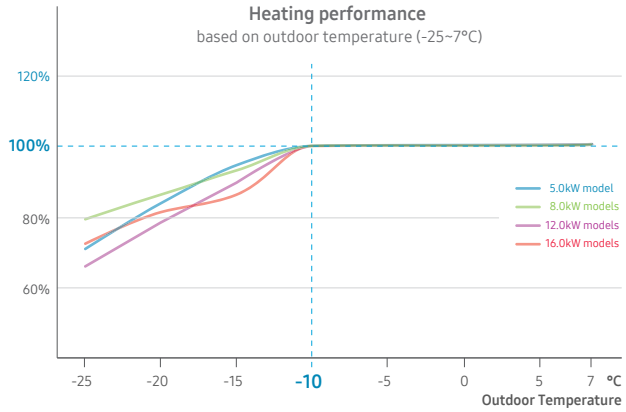

Space Heating




Domestic Hot Water


## Heating Performance in cold climates

The EHS Mono R290's heating performance has been increased by 13%[4], enabling it to deliver a 100% heating performance in temperatures as low as -25°C[5]. The heat pump has an enlarged heat exchanger that can transfer more heat at once compared to a conventional outdoor unit. The heat transfer area is up to 13% larger[6]. As a result, it can consume less energy to achieve the same cooling and heating performance.




[1] Leaving water temperature, when the outdoor temperature is between -15°C ~ 43°C. Results may vary depending on the actual usage conditions.
[2] Based on a leaving water temperature of 55°C. Results may vary depending on the actual usage conditions.
[3] Based on internal testing. Results may vary depending on the actual usage conditions.
[4] Based on internal testing, compared to a conventional EHS Mono. Conditions: A-10°C /W35°C, based on 8kW models based on our TDB (technical data book) published as R290 is 8kW, and R32 conventional is 7.11 so improvement is 13% increase of heating capacity.
[5] Efficiency ratio of heating output (capacity) versus power input (electricity). Internally tested under lab conditions based on EN 14511, results may vary depending on the actual usage conditions.
[6] Based on Samsung's measurements on an EHS Mono HT Quiet (AE120BXYDGG/EU) model compared to a conventional outdoor unit (AE120RXYDGG/EU) with the same capacity.

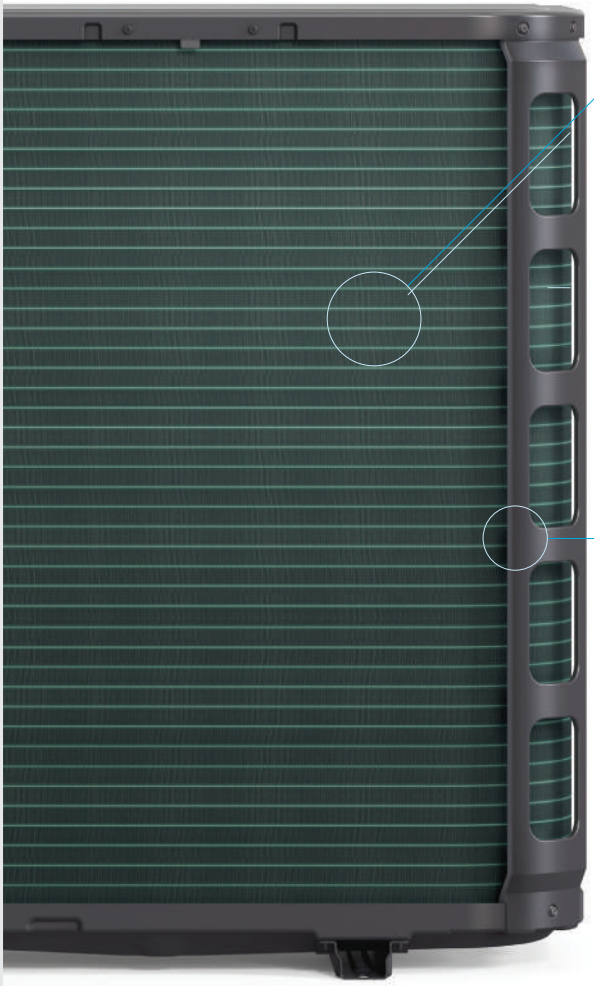
# Innovations in detail

## EHS Mono R290

Key features that makes the product weatherproof are Durafin Ultra & GI Steel plate, Antifreeze protection control, Elevated base design with a base heater, Antifreeze protection heater (PHE) and Heat sink.

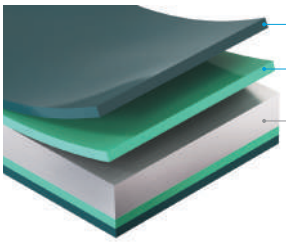
### Durafin™ Ultra & GI Steel Plate

Corrosion resistance is an important factor in outdoor units, as they need to withstand a range of climate conditions. The EHS Mono R290 outdoor unit features improved anti-corrosion capabilities on the heat exchanger and chassis to ensure maximum durability in harsh environments.



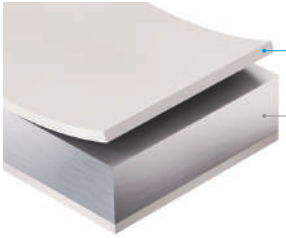
### Durafin™ Ultra

An anti-corrosive layer of epoxy acrylic and a hydrophilic layer of acrylic resin disperse water and reinforce its corrosion-resistance, which was proven using the Salt Spray Test (SST) over a period of 3,000 hours[1].




### GI Steel Plate

The EHS R290 Mono outdoor unit uses Galvanized Iron (GI) Steel Plate with a PE powder coating of up to 100μm thickness, which is proven to improve corrosion resistance by 43%, based on the Complex Cycle Test (CCT)[2]. So, it protects the cabinet from rusting and ensures it can endure harsh conditions.

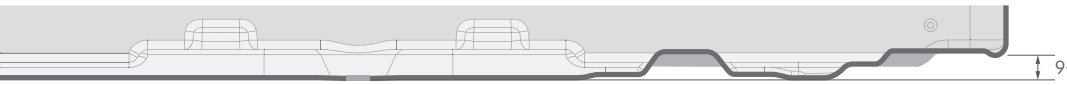



[1] Based on internal testing in accordance with ISO 9227, ISO 14993 and ISO 21207 using specimens from the heat exchanger of an EHS outdoor unit. For more details, please contact your local Samsung representative.
[2] Based on internal testing using corrosion chambers, Q-FOG and CCT-1100. The Complex Cycle Test (CCT) includes cycles of spray (for 2 hours at 35°C), dry (for 4 hours at 60°C 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.

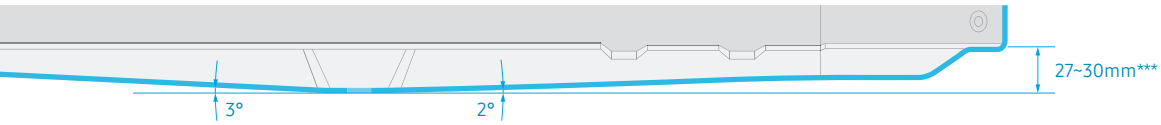
## Elevated Base Design

During the heating operation in cold weather, the defrost cycle used to remove ice on a heat exchanger can cause water to condense on it. The EHS Mono R290 outdoor unit has an elevated base design with deepened and slanted gutters to drain condensed water much faster* to prevent the unit from freezing on the inside of the cabinet.

**Conventional** AE***RXYD*G/EU




**EHS Mono R290** AE***CXYD*G/EU




[1] Based on internal testing on the EHS R290 Mono outdoor unit compared to a conventional EHS outdoor unit.

## Base Heater

In areas of extremely cold temperatures, ice can build up on a base even if it drains water effectively. Therefore, a base heater is a key component to melt ice quickly and to maintain the heating performance. The EHS Mono R290 outdoor unit has a base heater as a standard to ensure the reliability of its heating operation in extremely cold weather.

## Antifreeze Protection Control

In the EHS Mono R290, the hydraulic parts that provide hot water are built into the outdoor unit. As a result, the water pipe exposed to the outside conditions might freeze if it stops operating in cold weather of below 0°C[1]. So, the Antifreeze Protection Control continuously monitors the operating status and the outdoor temperature, and prevents the water pipe from freezing by forcibly pumping the water after a certain period of time[2].

[1] For external water pipes, the system must use antifreeze: Propylene Glycol with a toxicity rating of Class 1 as listed in Clinical Toxicology of Commercial Products, 5th Edition. Please refer to the installation manual or detailed antifreeze specifications.
[2] For example, if it has stopped operating for 60 minutes when the outdoor temperature is 3°C, the pump on the water pipe side is forcibly operated to prevent the water from freezing in the water pipe.

# Innovations in detail

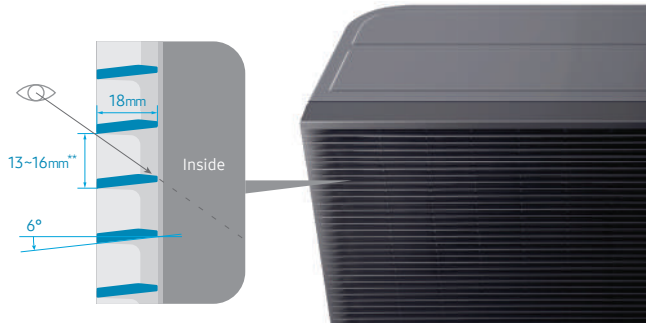
## EHS Mono R290

### Aesthetic Design

The EHS Mono R290 is a compact and stylish unit. The dark gray color seamlessly blends in and complements the styling of many modern buildings. The matte dark gray horizontal guard grille conceals the internal mechanical parts allowing it to blend with the surrounding environment without drawing attention. The compact design can fit in neatly below a window.

### Slanted Grille

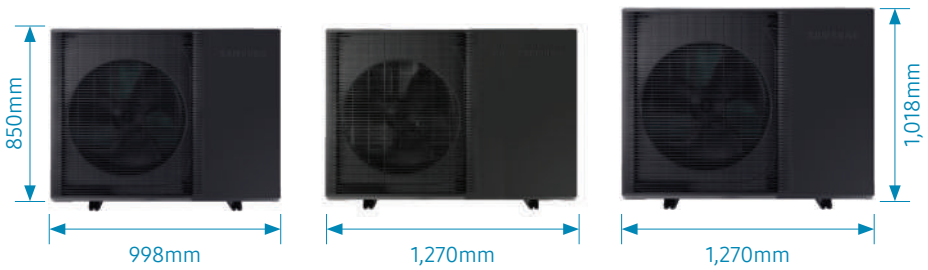
A new grille design has a 6° slope and is 18mm deep. The angled slats screen the inside from sight when you pass by it, even from only 1m away.[1].




[1] Based on a viewing height of 1,700mm and a viewing distance of 1m.

### Low Height

The EHS Mono R290 outdoor unit is approximately 1m in height. So, the unit can be installed beneath a balcony window, enhancing the interior of the home as the unit does not obstruct the view through the window.




5kW, 8kW
Standard

5kW, 8kW
Pump Integrated

12kW, 16kW
Standard, Pump Integrated

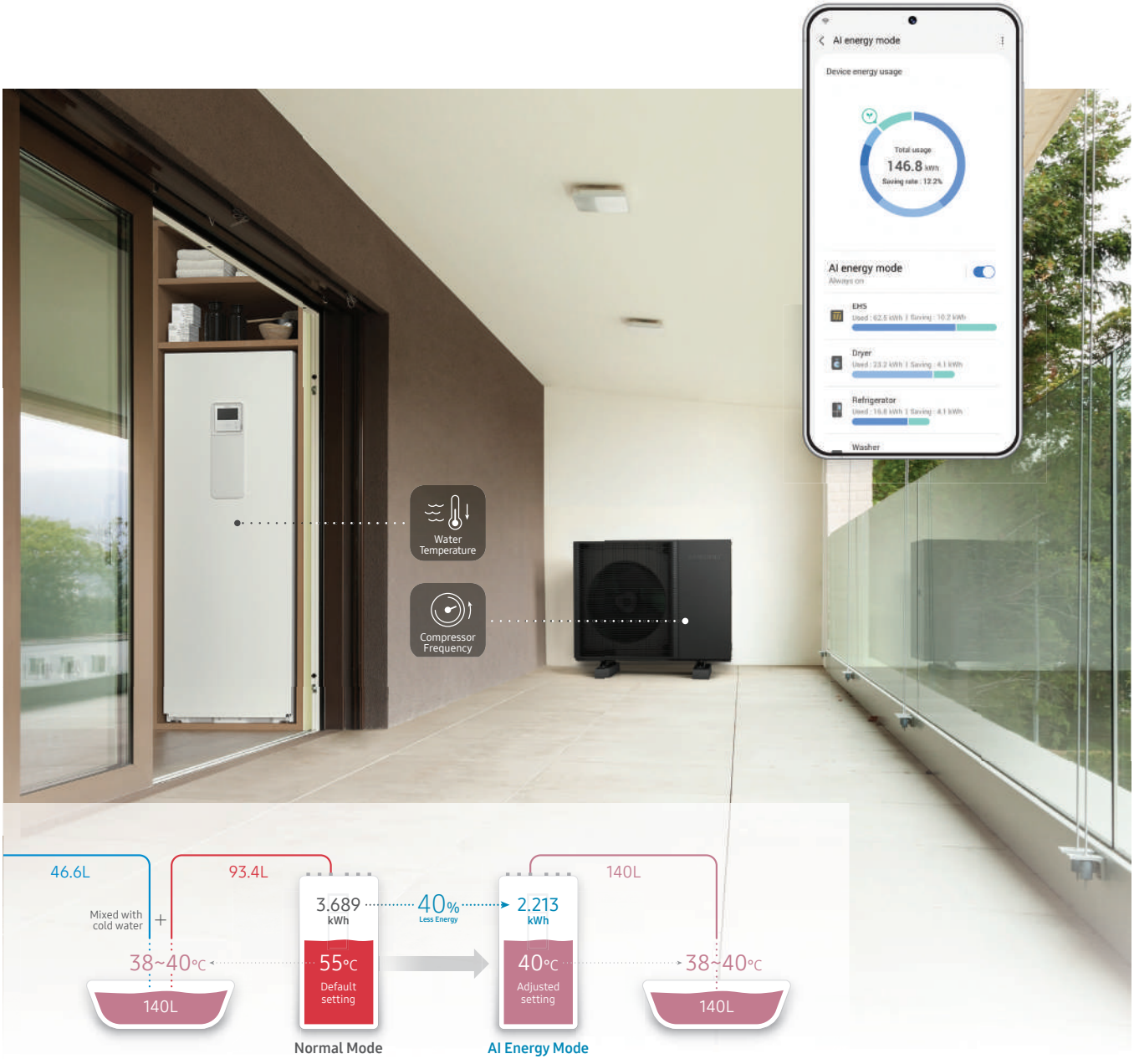
# Innovations in detail

## EHS Mono R290

### Energy Saving using AI Energy Mode

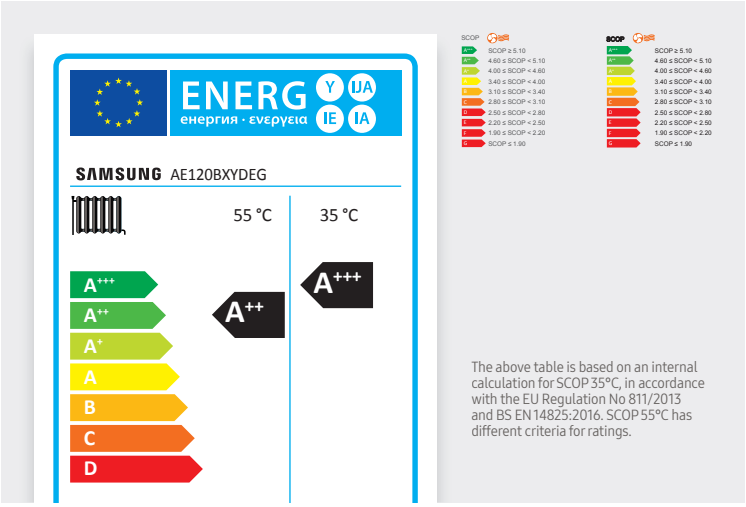
AI Energy mode in the SmartThings App[1] lets you check your power consumption and enables you to reduce energy consumption by adjusting the water temperature and compressor frequency.

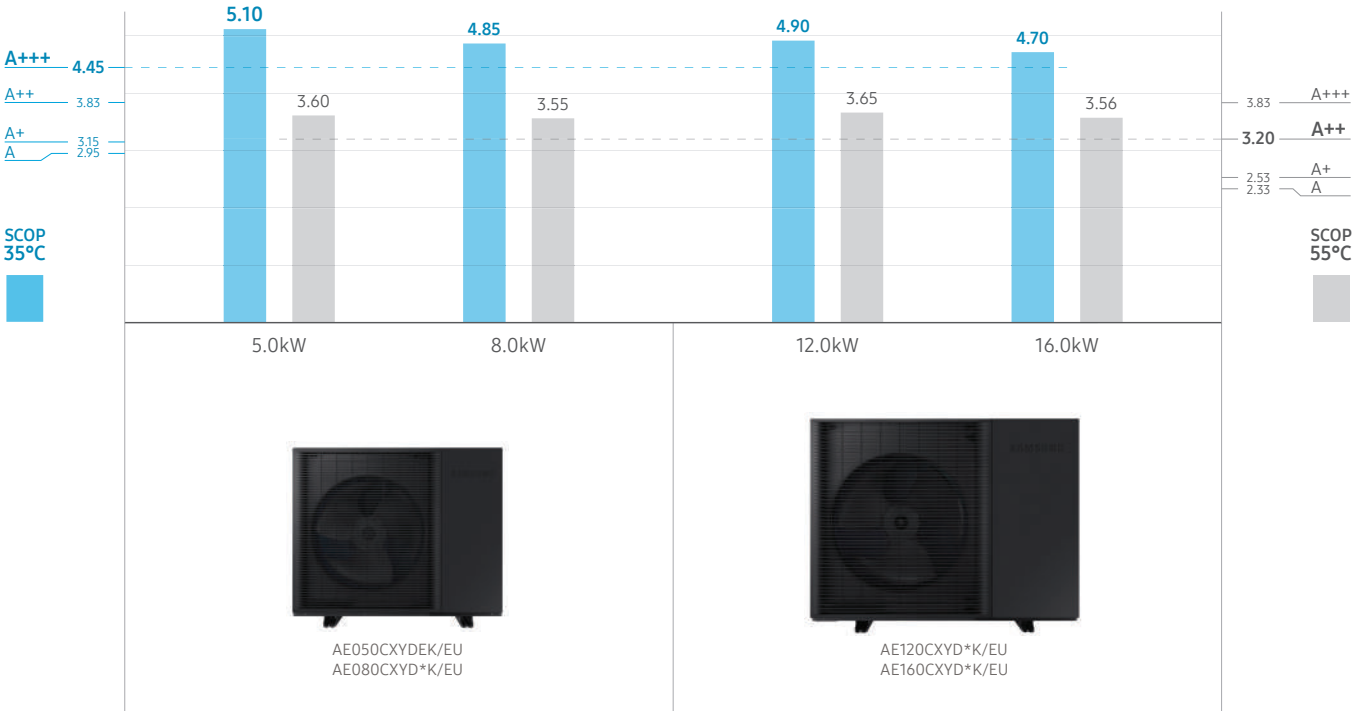
[1] The SmartThings AI Energy mode, when used by the end-user, can provide users with a possibility to save energy and/or costs with regard to their domestic hot water usage based on (repeatable) user patterns. A compatible Samsung Climate Hub is required. All savings are estimates. The actual savings vary and depend on, amongst others, usage, costs and operating conditions. The AI Energy mode may impact the product performance. End user may deactivate the AI Energy mode at any time.



## Energy Saving | SCOP A+++

The EHS Mono R290 has an enhanced Seasonal Coefficient of Performance (SCOP) A+++ energy efficiency rating across the entire range of capacities[1]. It has been increased by up to 14%[2] compared to the conventional models, providing up to 15% greater energy efficiency than the normal criteria required for the A+++ rating. So, it is proven to operate with a high level of efficiency.




[1] Based on internal testing when generating 35°C water, in accordance with EN14825. Results may vary depending on the system configuration and actual usage conditions.
[2] Based on internal testing when generating 35°C water using an EHS R290 Mono 5kW model, AE050CXYDEK/EU (SCOP: 5.10), compared to an EHS R32 Mono model of the same capacity, AE050RXYDEG/EU (SCOP: 4.46).

# Innovations in detail

## EHS Mono R290

### SmartThings & SmartThings Energy Integration

The SmartThings App[1] lets you monitor and control, pre-heat automatically with geo-fencing functionality, set –up routines and scenes based on usage and control the EHS Mono R290 from wherever you are simply using a smartphone. You can also check and adjust settings and receive alerts.

### SmartThings Energy

SmartThings Energy[2] lets you monitor the energy consumption of your EHS Mono R290 and compare it to the previous month. In addition, you can set monthly targets and receive alerts if they are likely to be exceeded. If it's determined that your estimated usage exceeds your target or you need to save energy, devices will run in AI Energy mode automatically. By learning your usage patterns, the AI Energy mode can also reduce its energy use by adjusting the water temperature and compressor frequency to suit your expected needs.

### EHS Cloud Service

The EHS Cloud Service ensures that the EHS Mono R290 stays in optimal condition, with a reduction in time and effort. The EHS Cloud Service lets the installer monitor its performance and adjust settings, when necessary, even at times, without a site visit[3]. A plug-in for the SmartThings App1 alerts you and a service engineer if a problem occurs, for fast and accurate response.[4]

[1] Available on Android and iOS devices. A Wi-Fi connection and a Samsung account are required.
[2] Amount of costs saved are dependent on various factors such as a user's electricity plan, indoor/outdoor temperature and other usage conditions. With the SmartThings App, user may for example program the relevant Samsung EHS product when the electricity price is offered at its lowest price offered or turn off the unit when not in use to minimize energy consumption.
[3] EHS systems in installation sites must be connected to the Internet using an optional Wi-Fi kit in order to be managed by the EHS Cloud Service.
[4] EHS Cloud Service is only available on Samsung products which are compatible with this service and to the extent the end user has agreed to the terms and conditions of the service and consented to the privacy notice applicable. A separate Wi Fi Kit may be required for the EHS unit . The information provided through EHS Cloud Service does not confer any right. It also does not constitute or intend to constitute advice regarding installation, maintenance or other topics. No guarantee or representation of any kind is provided on the completeness, accuracy, correctness, suitability, legality or reliability, either express or implied, in using the EHS Cloud Service. You must make your own independent decisions without reliance on the information provided through EHS Remote Service.

## Easy Installation and Servicing

The EHS Mono R290 incorporates all of the parts needed for the water piping, including a water pump and water pressure sensor, so the installation process is simplified, saving the installer time and effort.  In addition, the internal parts are easily accessible by removing the side panel, making servicing quick and easy for the installer.

## Integrated Water Pump[1]

The EHS Mono R290 outdoor unit comes completely fitted with water piping, expansion tank, valves and control kit PBA to reduce installation time and space.

## Built In Water Pressure Sensor

Water pressure can be easily checked on installing or testing the EHS Mono R290. All models are equipped with a water pressure sensor, which replaces the mechanical manometer in the indoor unit. So, our technical partners do not need to waste time and effort installing one separately and can quickly and conveniently monitor the precise water pressure using a remote controller.

## S-Converter

With the S- Converter, the technical installers can access the EHS Mono R290 using a PC or laptop wherever and whenever needed. It's self-diagnosis function not only monitors performance but also detects leakage.

## Emergency Operations

With two emergency operation modes, the EHS Mono R290 outdoor unit can provide continuous water heating and hot water even during a malfunction.

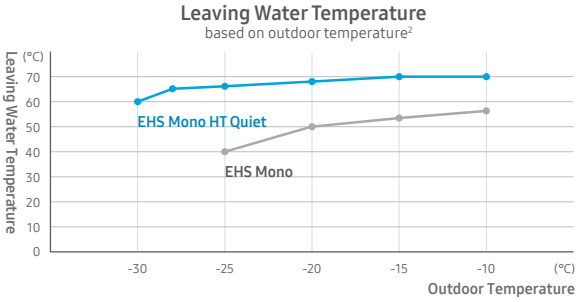
[1] Available from December 2023

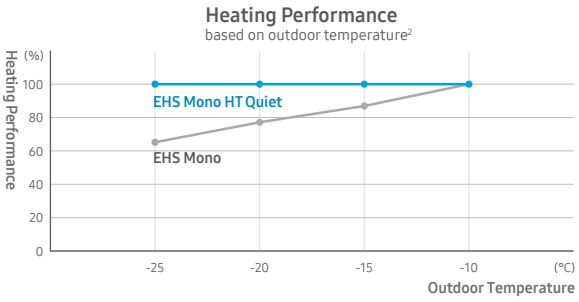
# Innovations in detail

## EHS Mono HT Quiet

### Hot Water Temperature

The EHS Mono HT Quiet combines advanced features to achieve hot water temperature of 70°C[1] and ensures that it is provided reliably. It combines various advanced features to achieve an incredibly hot water temperature and ensure that it provides a 100% heating performance even in extremely cold weather as low as -25°C[2].



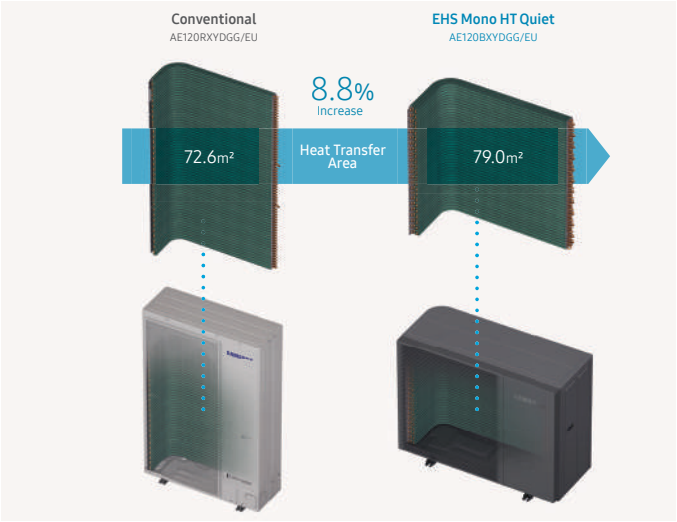

[1] Leaving water temperature, when the outdoor temperature is between -15°C ~ 43°C. Results may vary depending on the actual usage conditions.
[2] Based on internal testing on an EHS Mono HT Quiet (AE120BXYDGG) outdoor unit, compared to a conventional EHS outdoor unit (AE120RXYDGG). Results may vary depending on the actual usage conditions.

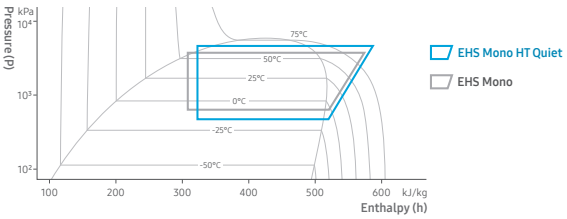
Key features to achieve Hot Water Temperature are Enlarged heat transfer area, Flash injection technology and Strengthened compression parts.

### Enlarged Heat Transfer Area

The EHS Mono HT Quiet has an enlarged heat exchanger that is capable of transferring much more heat at once. Its heat transfer area is approximately 11.9% larger[1] to help exchange heat quickly.

[1] Based on Samsung's measurements on an EHS Mono HT Quiet (AE120BXYDGG/EU) model compared to a conventional outdoor unit (AE120RXYDGG/EU) with the same capacity.



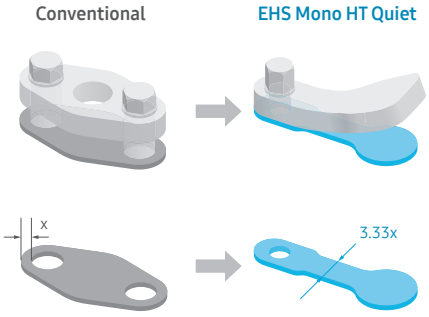

### Flash Injection Technology

The EHS Mono HT Quiet outdoor unit has a new Scroll Compressor that can compress refrigerant at much higher pressure, while its Flash Injection Technology increases the flow of refrigerant, so the compressor continues working reliably. Even at -30°C it can supply hot water of up to 60°C for non-stop comfort in the coldest conditions[1].

[1] Based on internal testing. Results may vary depending on the actual usage conditions.

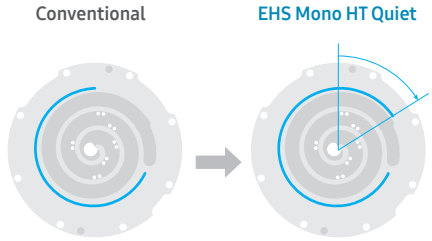
## Strengthened Compression Parts

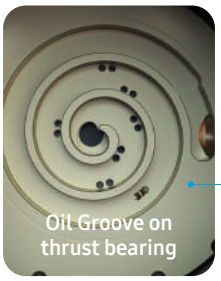
To endure the higher pressure created by a new Scroll Compressor, the EHS Mono HT Quiet uses high impact Reed Valves, which are thicker and stronger, and an extended Oil Groove, which provides sufficient lubricant to ensure the performance and reliability of the compressor. As a result, the compression ratio has increased by approximately 31%[1].





With enhanced durability and response rate, the Reed Valves endure much higher discharge pressure, which has increased by approximately 27%.




With a 58° extended Oil Groove on the thrust bearing, the lubrication area has increased by about 24%. So, the compression part keeps working stably even under an increased discharge pressure.

[1] Compression ratio = Discharge pressure/Suction pressure. Based on internal testing on an EHS Mono HT Quiet outdoor unit, compared to a conventional EHS outdoor unit. As a result, the discharger pressure has increased from 43 to 55kgf/cm²G, and the compression ratio has increased from 13 to 17.

# Innovations in detail

## EHS Mono HT Quiet

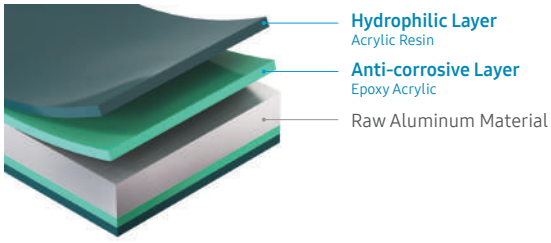
### Weather Proof

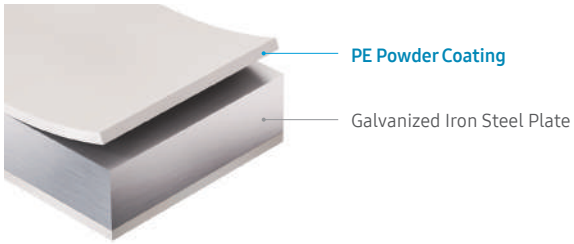
The EHS Mono HT Quiet outdoor unit features improved anti-corrosion capabilities on the heat exchanger and chassis to ensure maximum durability in harsh environments.

Key features that makes the product weather proof are Durafin Ultra & GI Steel plate, Antifreeze protection control, Elevated base design with a base heater, Antifreeze protection heater (PHE) and Heat sink.

### Durafin™ Ultra & GI Steel Plate

An anti-corrosive layer and a hydrophilic layer disperses water and reinforces its corrosion-resistance, which was proven using the Salt Spray Test (SST) over a period of 3,000 hours[1]. The outdoor unit uses Galvanized Iron (GI) Steel Plate with a PE powder coating of up to 100μm thickness, which is proven to improve corrosion resistance by 43%, based on the Complex Cycle Test (CCT)[2].



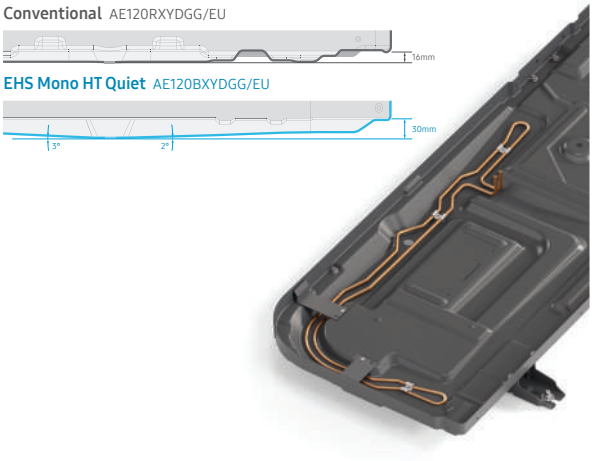




[1] Based on internal testing, verified by TUV Rheinland, in accordance with ISO 9227, ISO 14993 and ISO 21207 using specimens from the heat exchanger of an EHS outdoor unit. For more details, please contact your local Samsung representative.
[2] Based on internal testing using corrosion chambers, Q-FOG and CCT-1100. The Complex Cycle Test (CCT) includes cycles of spray (for 2 hours at 35°C), dry (for 4 hours at 60°C 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.

### Antifreeze Protection Control

In the EHS Mono HT Quiet, the hydraulic parts that provide hot water are built into the outdoor unit. As a result, the water pipe exposed to the outside conditions might freeze if it stops operating in cold weather of below 0°C[1]. So, its Antifreeze Protection Control continuously monitors the operating status and the outdoor temperature, and prevents the water pipe from freezing by forcibly pumping the water after a certain period of time[2].

[1] For external water pipes, the system must use antifreeze: Propylene Glycol with a toxicity rating of Class 1 as listed in Clinical Toxicology of Commercial Products, 5th Edition. Please refer to the installation manual or detailed antifreeze specifications.
[2] For example, if it has stopped operating for 60 minutes when the outdoor temperature is 3°C, the pump on the water pipe side is forcibly operated to prevent the water from freezing in the water pipe




## Elevated Base Design with a Base Heater

During the heating operation in cold weather (-25°C or below), the defrost cycle used to remove ice on a heat exchanger can cause water to condense on it. The EHS Mono HT Quiet has an elevated base design with deepened and slanted gutters, so it drains condensed water much faster[1] to prevent it from freezing inside the cabinet. So, a base heater is equipped as a standard, which can quickly melt ice on the base and ensure the reliability of its heating operation.

[1] Based on internal testing on the EHS Mono HT Quiet outdoor unit compared to a conventional EHS outdoor unit.

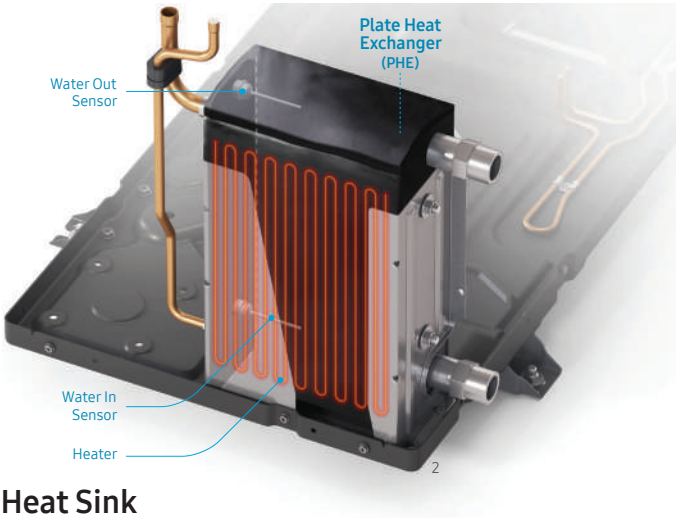
## Operates across a Wider Temperature Range

The EHS Mono HT Quiet supplies hot water regardless of the external conditions. Flash Injection Technology ensures that it can maintain its heating performance in cold weather, while a Heat Sink radiates the heat of the inverter circuit more effectively to extend the operating temperature range.

## Antifreeze protection heater (PHE)

When an outdoor unit turns off or is malfunctioning in cold weather, water inside it may freeze and burst vital parts. The EHS Mono HT Quiet has a heater on the Plate Heat Exchanger (PHE) that senses the temperature of the water in the PHE and keeps it above zero. So, it prevents the PHE from becoming frozen and bursting when it is not operating, even if the outdoor temperature reaches -30°C[1].

[1] Based on internal testing using an EHS Mono HT Quiet AE140BYXDGG model. Operated in an outdoor temperature of -30°C for 20 hours.
[2] Only illustrative. The heater is not seen from the outside of insulation.




## Heat Sink

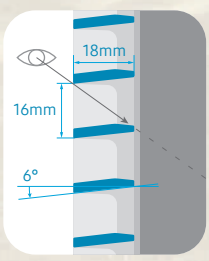
The inverter circuit generates a lot of heat, which affects the entire system's performance. The Insert Diecasting Heat Sink effectively radiates heat from the inverter circuit. It helps extend the heating operation temperature from 35°C to 43°C[1], so it reliably supplies hot water even in severely hot weather.

[1] Based on internal testing on the EHS Mono HT Quiet outdoor unit compared to a conventional EHS outdoor unit.

## Slanted Grille

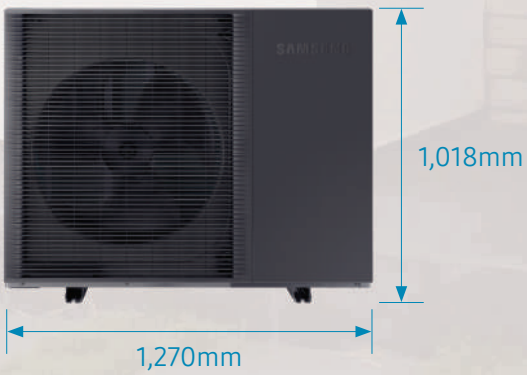
A new grille design has a 6° slope and is 18mm deep, so it screens the inside from sight when you pass by it, even if you are just 1m away*.

* Based on a viewing height of 1,700mm.




## Low Height

The EHS Mono HT Quiet outdoor unit is approximately 1m in height. So, it can be installed under a balcony window, which enhances your home interior as it does not affect the view out of the window.

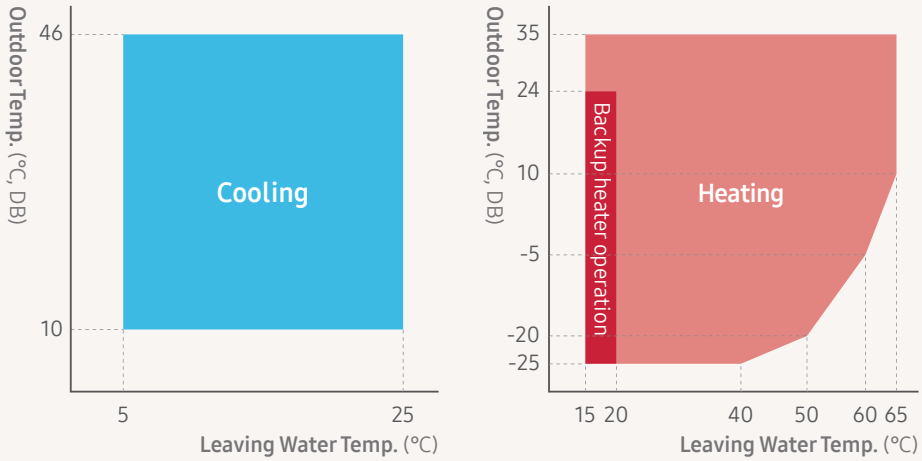


# Innovations in detail

## EHS Mono & Split

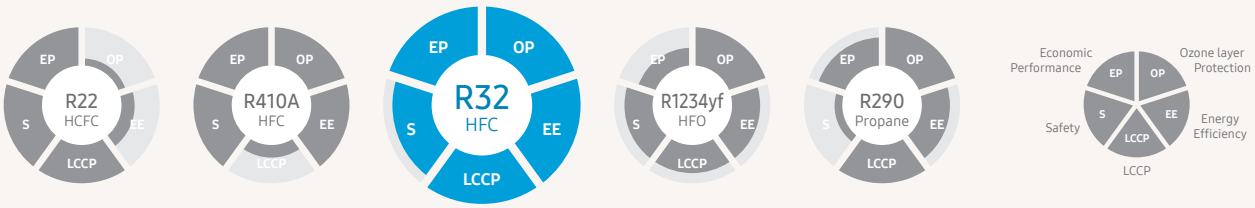
### Hot water temperature

The EHS Mono & Split can produce hot water of up to 65°C, depending on the ambient air temperature. When the discharge temperature is below 20°C and the outdoor temperature is below 24°C, the Backup Heater is operated to help raise the temperature above a certain level. And, using a Booster Heater, the Tank Integrated Hydro Unit can provide water of up to 70°C.




EHS Mono HT Quiet will reach a Leaving water temperature of upto 70°C.

### Refrigerant R32




LCCP - Life Cycle Climate Performance

The EHS Mono and Split range uses the next generation of R32 refrigerant, which helps and lower the impact on global warming. It is equipped with an Ozone Depletion Potential (ODP) of zero and a lower Global Warming Potential (GWP) than conventional R22 or R410A refrigerants[1]. It also reduces the amount of refrigerant needed and cuts $CO_2$ emissions[2], so it's much more environmentally friendly.

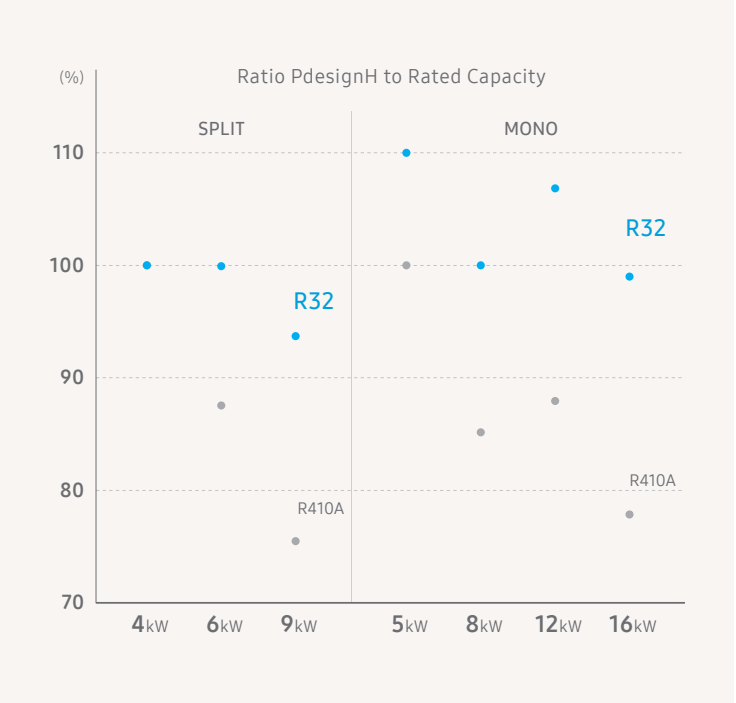
[1] GWP rating: R32 refrigerant = 675 vs. R410A refrigerant = 2,088.
[2] The Samsung EHS Mono and Split (R32) only require 83 % of the refrigerant used in a conventional heating system (R410A) of the same capacity. So the level of $CO_2$ emissions of the EHS is 560 (675 x 0.83), which is 73% less than the 2,088 produced by a conventional heating system.

## Energy Efficiency - SCOP A+++

Our EHS Mono and Split include a range of advanced technologies that help optimise your energy usage The Samsung EHS has a Seasonal Coefficient of Performance (SCOP) A+++[1] energy efficiency rating, therefore they are proven to operate with a high level of efficiency.

EHS Mono and Split achieve a good heating performance at low temperature by using R32 refrigerant. The R32 refrigerant has a high PdesignH (kW), and works reliably and efficiently even in cold climate.

[1] Air-to-Water Condition : (Heating) Water In/Out 30 °C/35 °C, Outdoor Air 7 °C[DB]/6 °C[WB]; (Cooling) Water In/Out 23 °C/18 °C, Outdoor Air 35 °C[DB].





**Base heater prevents water condensation from freezing.**

## Base Heater

The EHS[1] outdoor unit is specifically designed to provide an optimal performance in extremely cold environments. It features a Base Heater (150W), which improves the defrost operation duration. Therefore contributes in keeping the base plate of the outdoor unit free from ice build-up. Together with the standard feature of snow prevention control, it helps to prevent damage from snow drifts.

[1] Available only in >8kW Mono and >9kW Split model codes

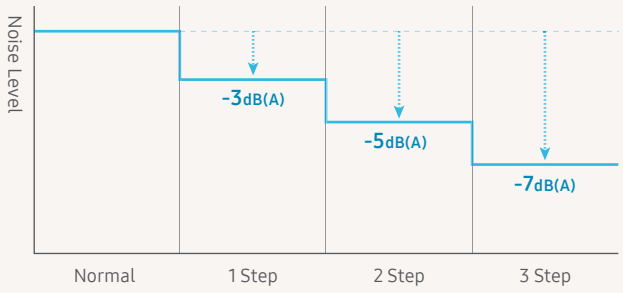
# Innovations in detail

## EHS Mono

### Quiet Operation

The 3-Step Quiet Mode enables adjustable, low-noise operation to meet strict sound level requirements by selecting from three different steps to reduce the sound level by 3dB(A), 5dB(A) or 7dB(A)[1].

[1] Based on internal testing of the 6 kW and 9 kW Split outdoor units (AE060RXEDEG, AE090RXEDEG, AE090RXEDGG). The noise level is measured 3 m away from the front of the outdoor unit, in an anechoic room with an outside temperature of 7 °C. Results may vary depending on the model (capacity), environmental factors and individual use. Sound pressure levels are subject to execution and operating conditions.

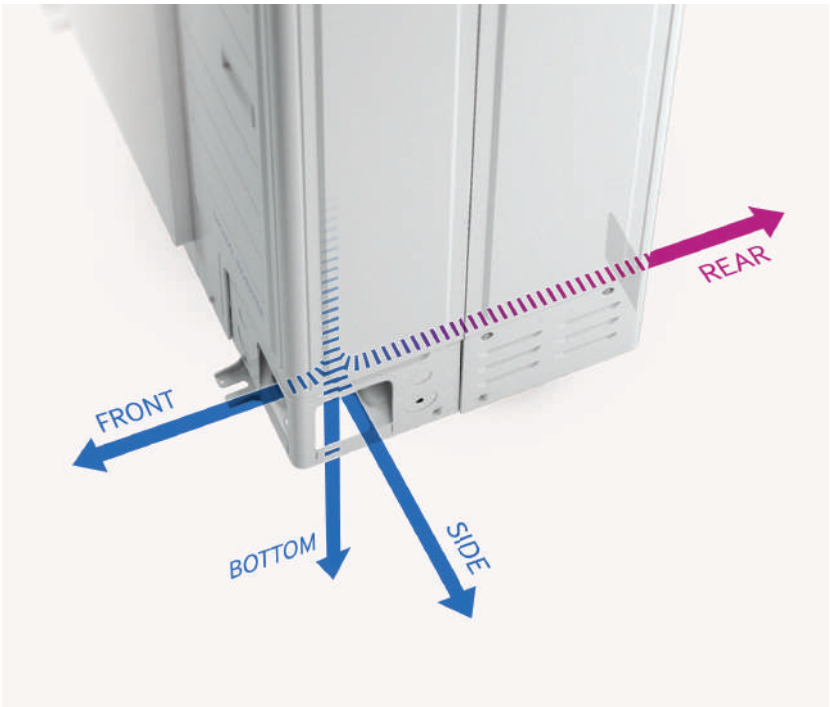



# EHS Split

## 4-way Piping

The EHS Split 4-way piping system[1] has pipe access possibilities at the front, side, bottom and rear, so it provides much more flexibility during installations. It can be configured to suit almost any installation location without additional fittings, while still being discreetly concealed.

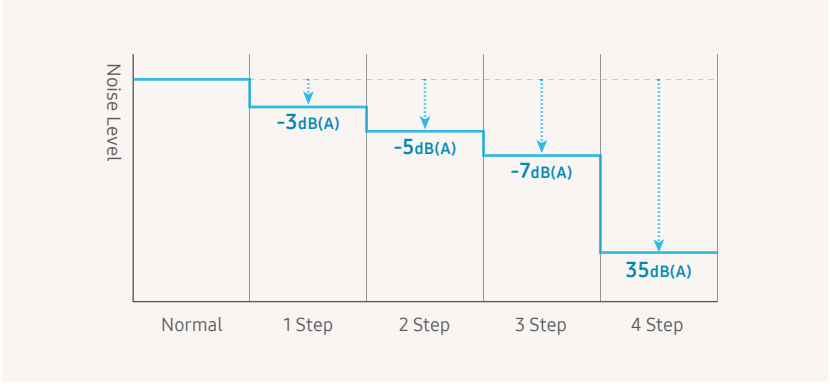
[1] Only available on certain models. Contact your local Samsung representative for complete product information.




## Quiet Operation

The 4-Step Quiet Mode enables adjustable, low-noise operation to meet strict sound level requirements by selecting from three different steps to reduce the sound level by 3dB(A), 5dB(A) or 7dB(A) or keep it as low as 35dB(A)[1].

[1] Based on internal testing of the EHS Split outdoor units. The noise level is measured 3m away from the front of the outdoor unit, in an anechoic room with an outside temperature of 7°C. Results may vary depending on the model (capacity), environmental factors and individual use.



# Innovations in detail

## ClimateHub

### Easy Installation

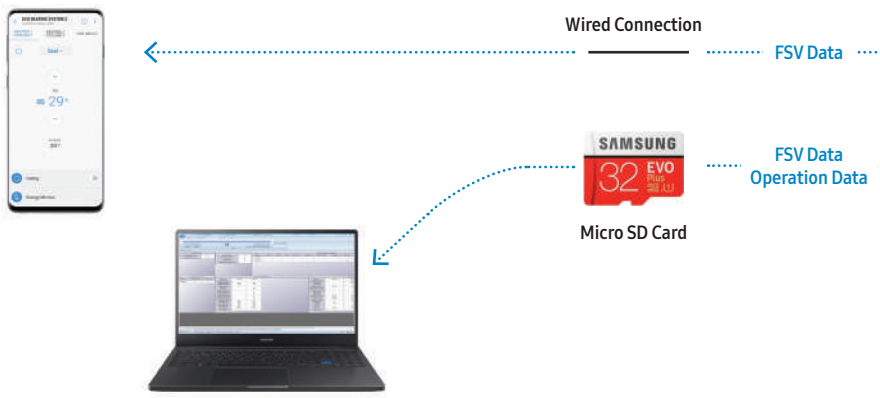
The compact ClimateHub Mono, Split and TDM Plus are easier to handle and require much less space, so they can be installed in many more places. Additionally they are extremely simple to set up and maintain.


### Compact & Integrated Design

A compact and modular Tank Integrated Hydro Unit integrates a conventional hydro unit or control kit, a large hot water tank of either 200 or 260 litres and parts of the water pipes. So it's easier to handle and gives freedom to install it almost anywhere in a building, even in a kitchen or utility room.

### Easy Set-up and Servicing

Set up and maintain the ClimateHub system more easily, saving time and effort. With its intuitive servicing options, start-up and maintenance can be done with limited effort through the use of a converter PBA[1] and Micro SD card[2].




[1] Only available in Tank Integrated Hydro Units.
[2] Data can be viewed using Samsung service software (S-Net Pro2) on a computer with a compatible SD Card slot. SD Card is up to 32 GB and connected point down.

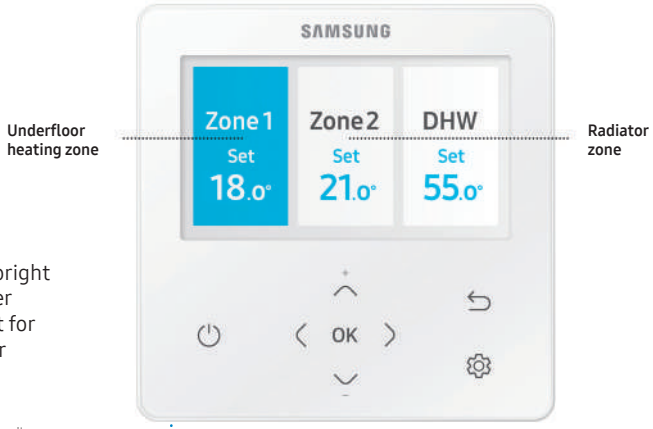
## Convenient Control

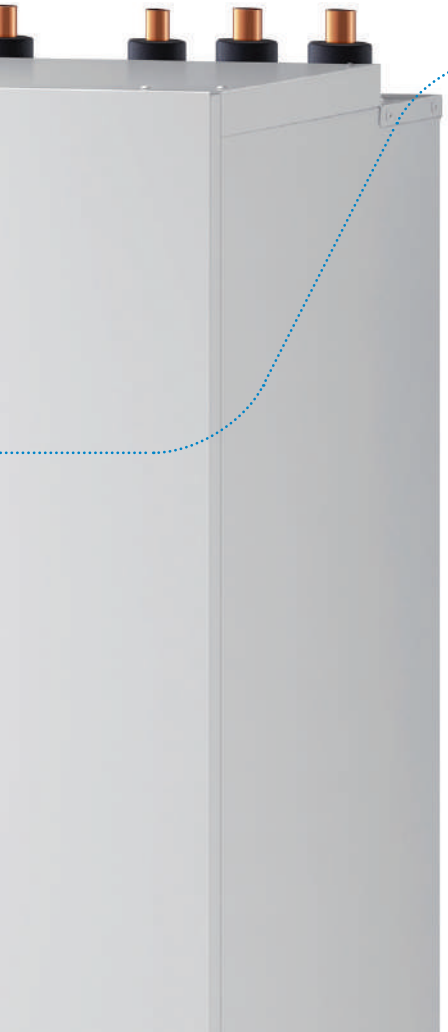
The ClimateHub Mono, Split and TDM Plus offer a range of easy to use control options that make life much simpler.

## Intuitive Control

The touch controller comes equipped with multiple language options and bright colour display – enabling temperature settings, energy monitoring, summer time setting and quick error monitoring.[1] Different temperatures can be set for each zone, meaning high-temperature radiators and low-temperature floor heating can be utilized efficiently.

[1] The image shows an application example and is for illustrative purposes only. Please always check latest information for understanding availability of language versions. Available in 16 languages: English, German, French, Italian, Spanish, Polish, Portuguese, Dutch, Greek, Czech, Slovak, Finnish, Swedish, Norwegian, Danish, Lithuanian.



## Smart Connectivity

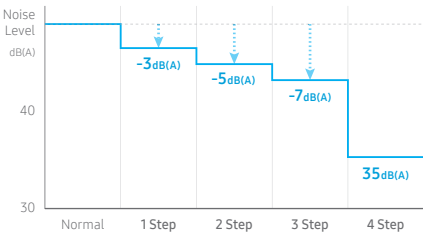
With the built-in Wi-Fi, the unit can be monitored through the Samsung SmartThings App[1] or EHS Cloud Service account[2].

[1] 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.
[2] Only available on Samsung products which are compatible with this service and to the extent the end-user has agreed to the terms and conditions of the service and consented to the privacy notice applicable. A separate Wi-Fi Kit may be required for the ClimateHub Split, TDM Plus unit and older mono versions.


## Quiet Operation

The 4-Step Quiet Mode enables adjustable low-noise operation to meet strict sound level requirements[1]. Simply select from four different steps to reduce the sound level by 3 dB(A), 5 dB(A), 7 dB(A)[1] or keep it as low as 35 dB(A)[1].

[1] Based on internal testing of the 6 kW and 9 kW Split outdoor units (AE060RXEDEG, AE090RXEDEG, AE090RXEDGG). The noise level is measured 3 m away from the front of the outdoor unit, in an anechoic room with an outside temperature of 7 °C. Results may vary depending on the model (capacity), environmental factors and individual use. Sound pressure levels are subject to execution and operating conditions.

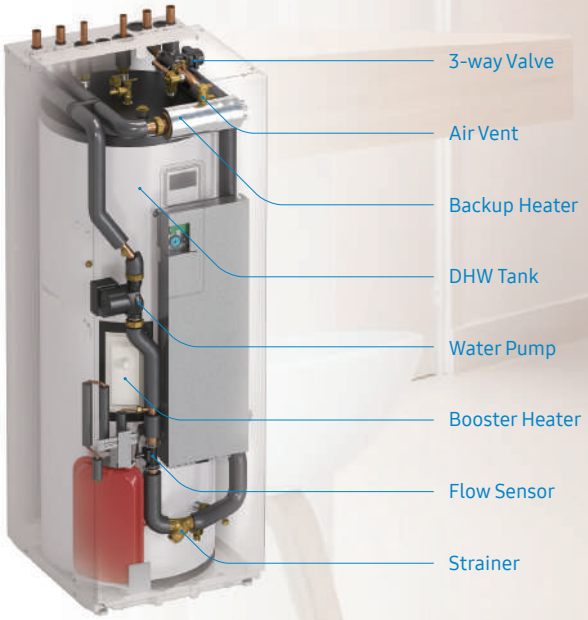


# Innovations in detail

## A single integrated unit that combines a control kit and a water tank

The Tank Integrated Hydro Unit incorporates a control kit and a large domestic hot water (DHW) tank available in 200 and 260 litre options. Its compact and modular design means that it fits easily into a wide range of locations, as everything is installed in one place. Its intuitive servicing options also ensure that it can be set-up and maintained with minimal effort.

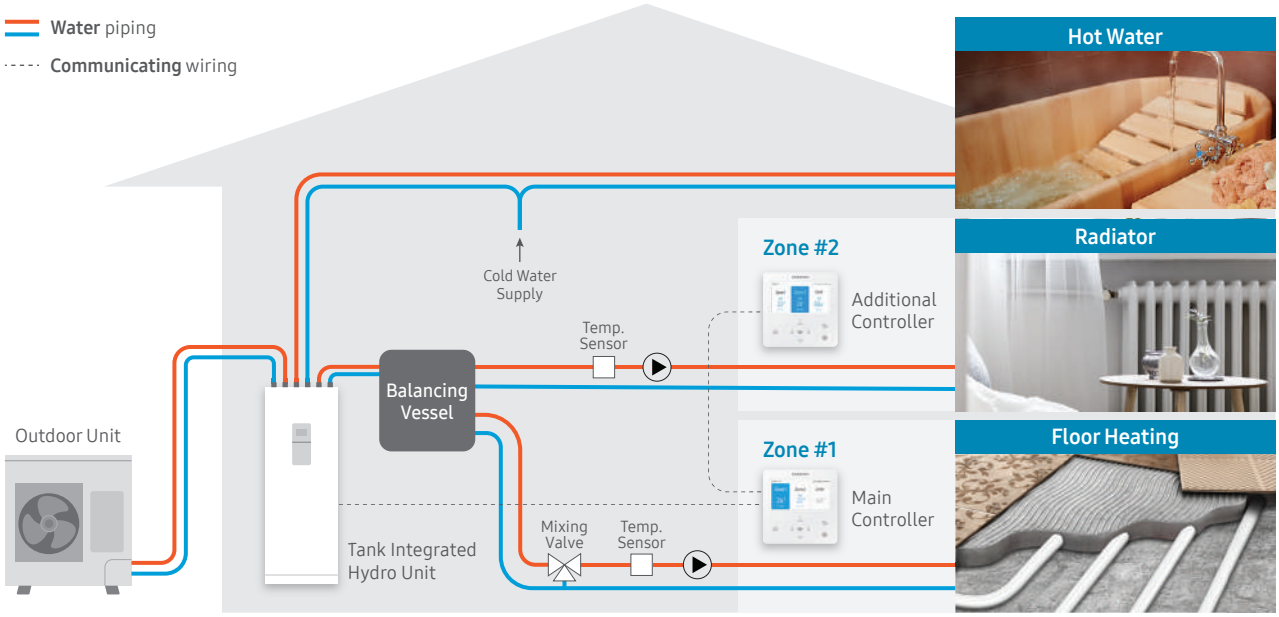
### Product Structure



# ClimateHub

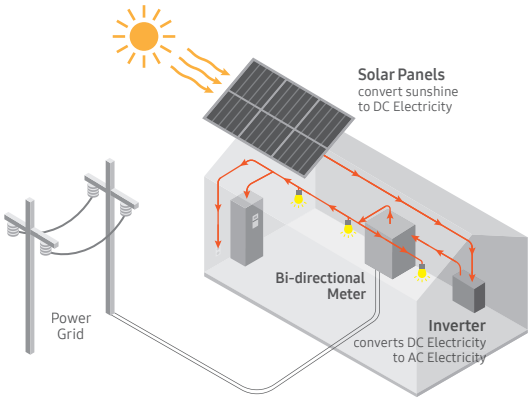
## 2-Zone Control

The 2-Zone Control can fulfill two different water temperature demands simultaneously, therefore can optimally heat multiple spaces. This in turn saves energy without heating unused areas unnecessarily.



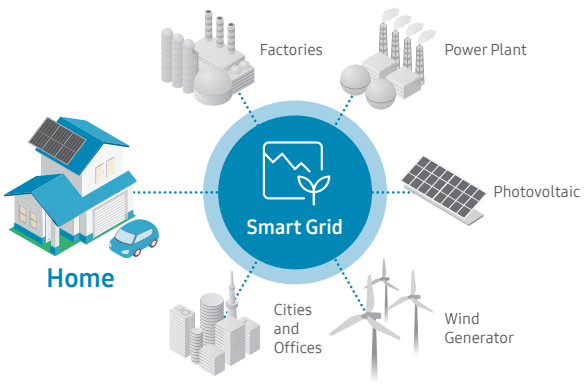

## Photovoltaic Enabled

The Photovoltaic Enabled feature checks the status of solar panels and lets you use the solar energy to reduce network electricity usage.




## Smart Grid Ready

The Smart Grid Ready feature helps you save energy by adjusting the power consumption to suit your supply contract with the local electric power company.

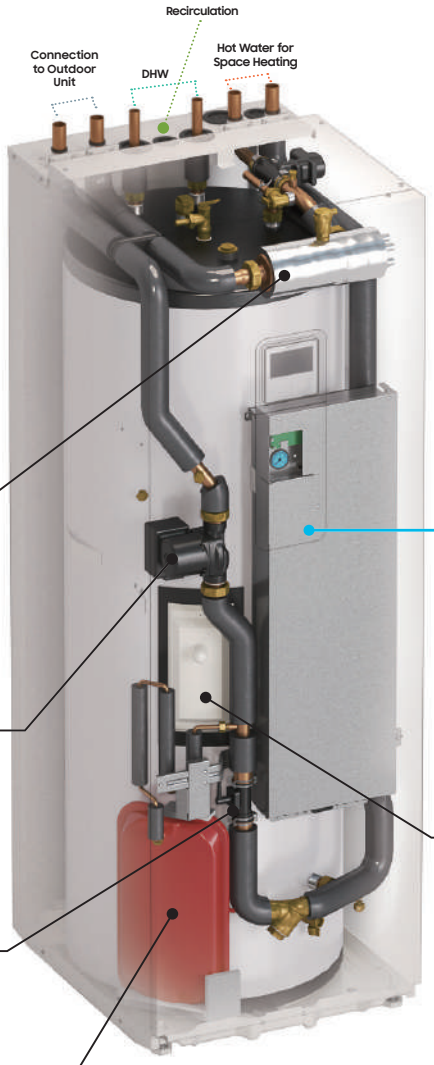


# Innovations in detail

## ClimateHub

### ClimateHub Components

The ClimateHub system includes all the main hydraulic components: therefore making more free space available in your home.




**Backup heater**

For space heating,
2 kW (single phase) or
6 kW (three phase)

**Water pump**

Included with PWM Inverter control

**Flow sensor**

Allows, in combination with the MWR-WW10*N wired controller to estimate energy consumption

**Expansion vessel**

8 litres

**Photovoltaic & Smart Grid connections**

**Booster Heater for DHW**

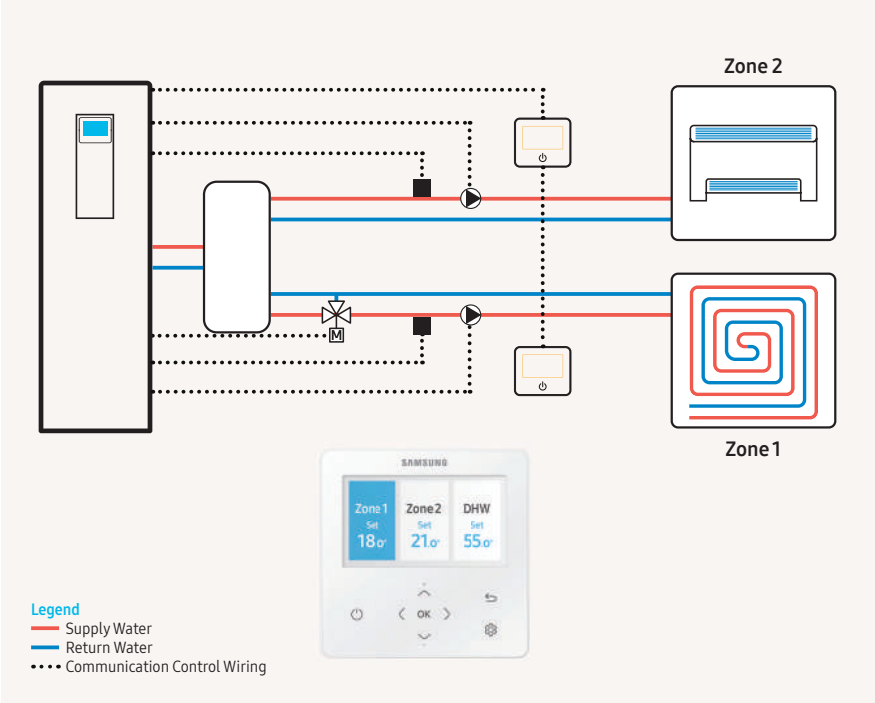
## Complete control using MWR-WW10*N

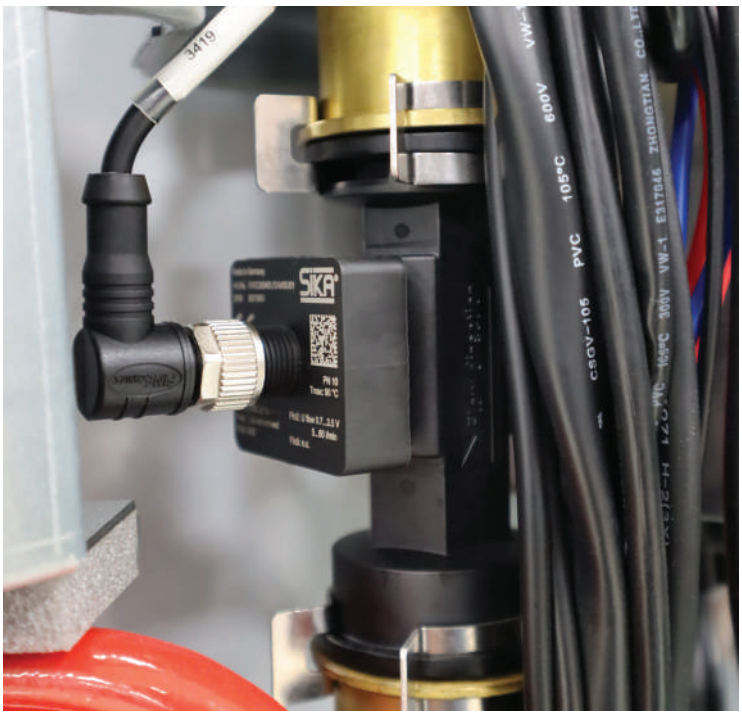
The ClimateHub system controller allows simplified and intuitive management of all settings.

**Estimation of consumption:**
Measure energy consumed and shown directly on the controller menu.

**Automatic temperature adjustment:**
Maintaining the requested indoor temperature by automatic adjusting the heating water supply temperature based on the ambient temperature. This feature offers enhanced performance and reduces thermal dispersions and energy waste(2).

**Multizone management:**
Via this command, it is possible to create and manage two zones with different desired temperatures.

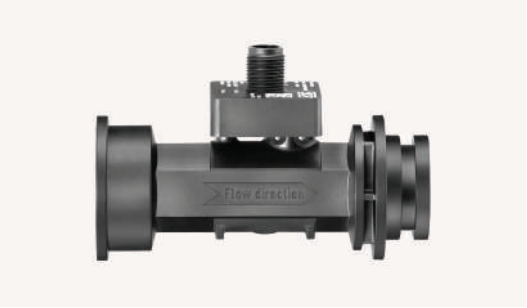


## Precise control by using a Flow Sensor

The exchange of thermal energy between the refrigerant and water takes place in the plate heat exchanger. In order to have the most efficient exchange, the EHS can control the flow of water over the plate heat exchanger. A flow sensor[1] is built-in to sense the quantity of water supplied to the plate heat exchanger.

[1] Flow sensor is available in all ClimateHub and 9kW & 16kW Split wall-mounted hydro units.

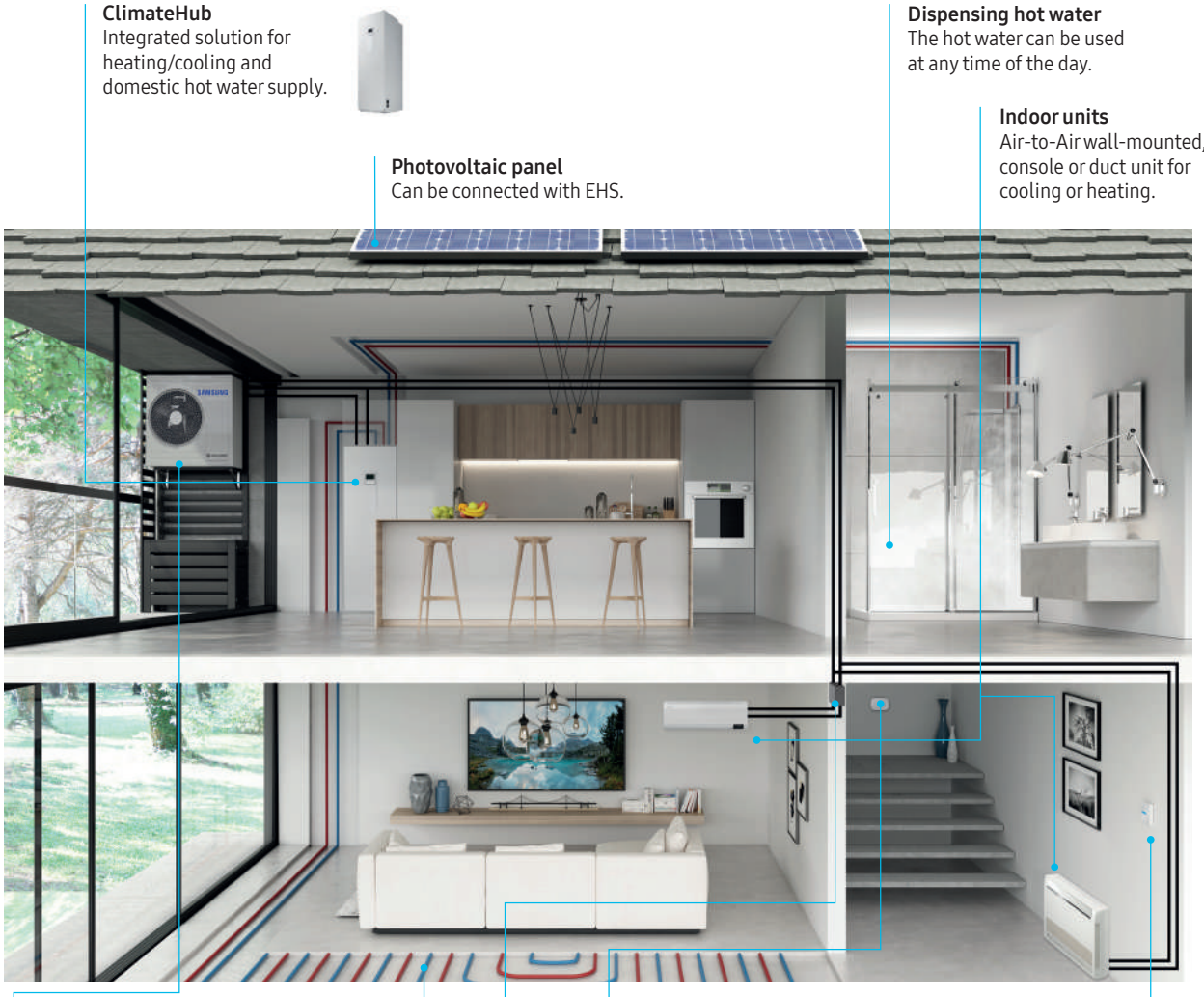


# Innovations in detail

## TDM Plus

### All-in-one System

The EHS TDM Plus is a one-stop solution that provides hot water to heat radiators, floors and sanitary systems, along with hot or cool air – to create a comfortable environment all year round. As these heating and cooling sources can be operated separately or together, it is suitable for use in a variety of scenarios. So, it can be adapted to suit any specific needs, ensuring maximum comfort and convenience.



**ClimateHub**
Integrated solution for heating/cooling and domestic hot water supply.



**Photovoltaic panel**
Can be connected with EHS.

**Dispensing hot water**
The hot water can be used at any time of the day.

**Indoor units**
Air-to-Air wall-mounted, console or duct unit for cooling or heating.

**Floor heating / cooling**
Hot water circulates in the floor panels heating / cooling the space

**Control Panel**
**MWR-WW10*N**
Controls ClimateHub



**Wi-Fi kit**
It allows monitoring and management of the system using smartphones remotely with the SmartThings app.

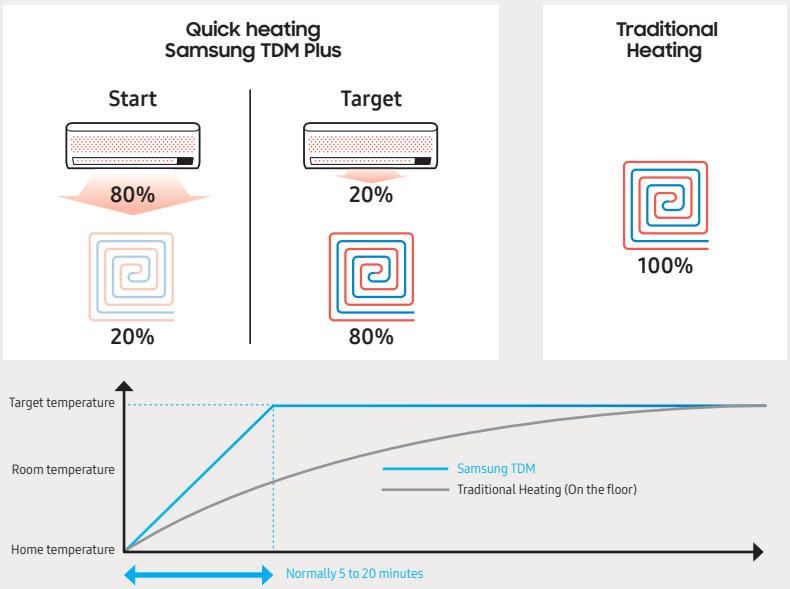
**Outdoor unit**
Offers high performance in all conditions.

**EEV Kit**
Possibility to reduce noise (only for interior walls).

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. Solar panels, underfloor heating panels, radiators and non-integrated components are not provided by Samsung unless specified otherwise. For more detailed product information and technical specifications, please consult the respective product pages of this Product Catalogue.

## Fast Heating Using TDM Plus technology (Time Division Multi)

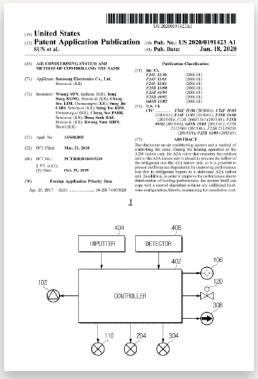
Underfloor heating is known to be an optimal system for ideal thermal comfort. It reaches a set temperature 4–8 hours from the moment of its activation. The TDM Plus technology used in the EHS system, also provides for the use of Air-to-Air indoor units, thus drastically reducing the time to reach the desired room temperature.



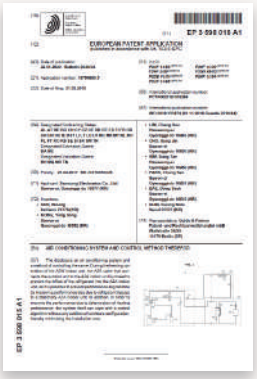

The percentages are only examples. For more details, please contact your direct Samsung representative.

## TDM, the patented technology for optimally controlling energy use

The ability to simultaneously provide hot water along with heating and cooling using only one outdoor unit requires a precise heat pump design and an advanced control algorithm. Samsung's TDM technology uses its own algorithm to optimally control the refrigerant and maximize the efficiency of the heat pump system when heating and cooling. These system and algorithm have been patented in many countries, including the US and Europe.




**US Patent**
US20200191423A1



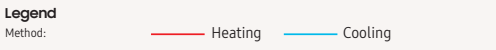

**EU Patent**
EP3598015A1

# Innovations in detail

## TDM Plus

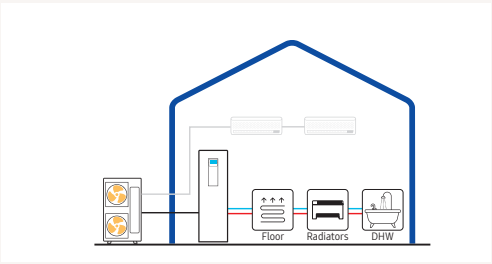
Samsung has developed the innovative TDM Plus technology (Time Division Multi) which allows operation of EHS in Air-to-Water mode and in Air-to-Air mode. The possibility of using the two operating modes allows considerable savings both in economic and installation terms.

### TDM Plus system




### Air-to-Water cooling and heating

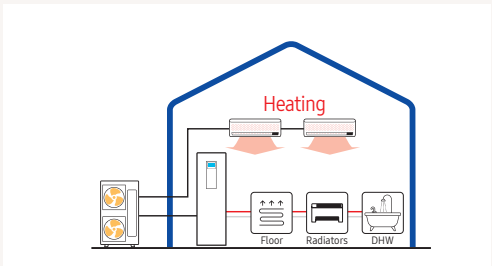
In this mode, the TDM Plus system is usable for the production of domestic hot water and heating of the house through radiators or underfloor heating. Thus the heat pumps allow you to heat the house more quickly by consuming even less energy. The TDM Plus can also supply chilled water for cooling purposes during the summer period.




### Air-to-Air and Air-to-Water

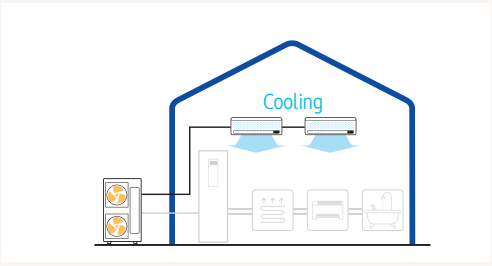
The greatest advantage of the TDM Plus systems is the combined use of Air-to-Air and Air-to-Water modes for heating and cooling. This means that on the coldest winter days it is possible to heat up the space quickly and easily, before the underfloor heating reaches the desired temperature. (As underfloor heating is quite slow but steady in keeping the room temperature, changes to the set temperature can take relatively long.)

Air-to-Air heating can raise the comfort quickly via heating the air in the room. Both Air-to-Air and Air-to-Water work in the same space to keep the desired room temperature.



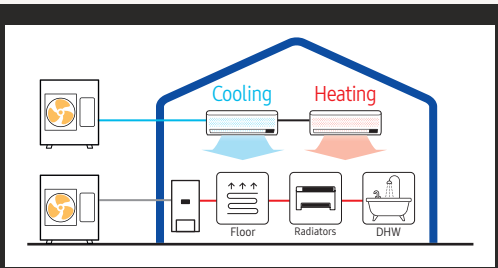

### Air-to-Air cooling and heating

An exclusive feature of the TDM Plus systems, in Air-to-Air mode, is that it can operate both in the summer and winter. The cooling phase is also achieved immediately with the Air-to-Air mode. The advantage in the heating mode is the temperature speed control, compared to the use of radiators or fan coil units.




### Traditional system

The traditional heat pump system requires two distinct outdoor units for air conditioning and domestic hot water production. Unlike the TDM Plus, the need to use two outdoor units necessarily involves greater electricity consumption and greater installation space.



## Customizable operation at any time

You can set the priorities and the operating modes for the TDM Plus heat pump using the control unit. You can also adapt the settings or parameters that suit you.

### Operation priority

Hot water

Air conditioning

Traditional Heating (Underfloor)

Low radiator temperature

# Innovations in detail

## TDM Plus

### High performance even at low temperatures

The TDM Plus system is equipped with an inverter compressor able to deliver up to 90 % of its nominal potential even at an outside temperature of -10 °C. Operation is guaranteed even if outside temperatures drop up to -25 °C.

#### Quiet Operation

The Silent function allows you to reduce noise levels of the outdoor unit up to 7 DB (in 3-steps) , making it ideal for operation even at night. Activation is programmable through the remote controller.

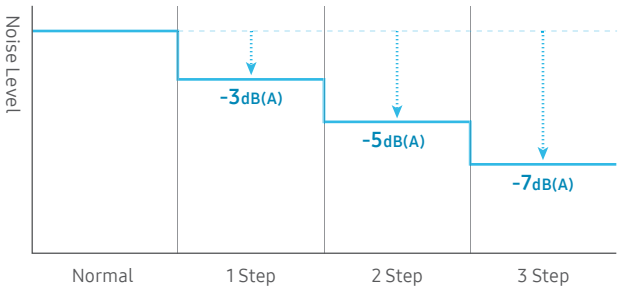
#### Emergency Mode

Even in case of interruption of the operation of the outdoor unit, the ClimateHub guarantees the production of hot water.

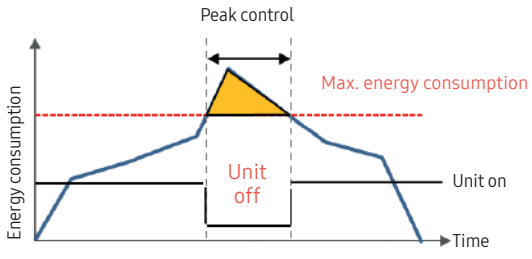
#### PV enabled & Smart Grid Ready

It allows to optimize the self-consumption of electricity produced by photovoltaic panels. Connection is already prepared on the hydronic modules and in the ClimateHub and Samsung EHS systems.

**QUIET OPERATION**




**SMART GRID MANAGEMENT**




Connection is managed internally by turning it off in peak situations.

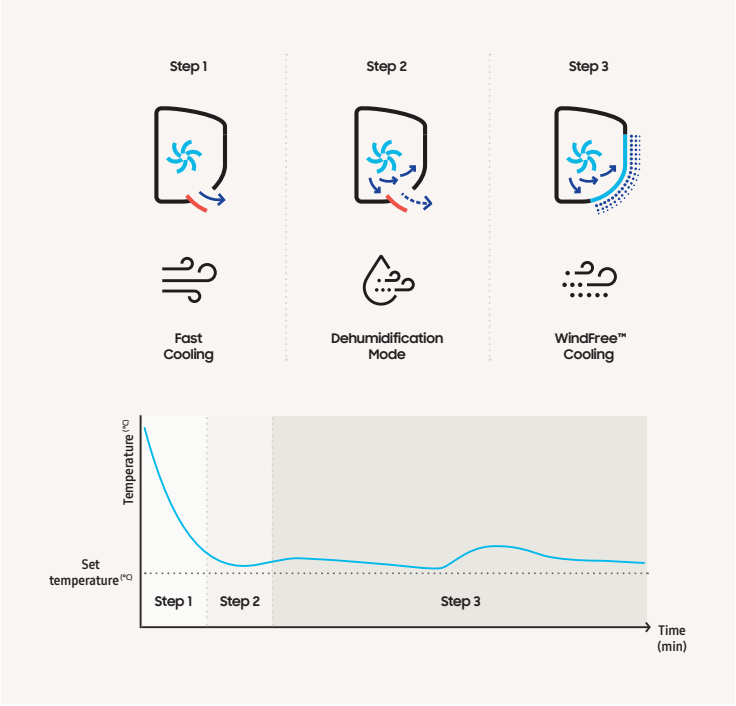
# Innovations in detail

## TDM Plus WindFree™ Deluxe

### WindFree™ Cooling

WindFree™ Cooling mode keeps the room comfortably cool. It cools gently and quietly, dispersing air through 23,000 microholes so that consumers never have to deal with the unpleasant feeling of a cold draft on their skin. This results in a "Still Air" environment[1] with a very low air speed and limited noise[2]. The advanced airflow structure of this mode also means that it cools a wider and larger area more evenly. And it consumes up to 77 % less energy than Fast Cooling mode[3] so consumers can stay comfortably cool while reducing energy costs.

[1] 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.
[2] 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.
[3] Tested on the AR12TVEAAWKNAP model under specific testing conditions, based on the power consumption of Fast Cooling mode versus WindFree™ Cooling mode.





### Auto Clean

The Auto Clean functionality enables cleaning of the heat exchanger anytime after you turn off the unit. This function automatically dries the Heat Exchanger using a 3 step process and prevents the build up of bacteria and odors. It can easily be enabled or disabled with the click of the remote controller.

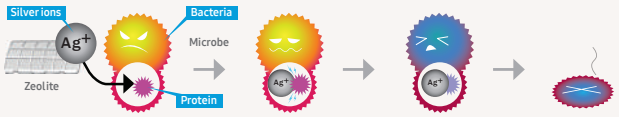
## Easy Filter Plus

Unlike conventional filters that may be difficult to access the Easy Filter Plus is located externally on the top of the unit. This means it can be easily removed and cleaned without needing to open a cover or pull hard on it. Thanks to the filter's dense mesh it's very effective at capturing dust and therefore keeping the Heat Exchanger clean and working efficiently. The special coating on the filter helps protect residents from certain airborne contaminants[1].

[1] Tested in an external Korean test lab (FITI). Data has been measured under specific testing conditions and may vary depending on environmental factors and individual use. Certain airborne contaminants referred to are Escherichia coli ATCC 25922, Staphylococcus aureus ATCC 6538.


Easy to detach

Easy to clean




1. Silver ions penetrate the surface of bacteria when they come into contact with the Zeolite coating

2. Silver ions react with the bacterial proteins

Antibacterial process

Two screw points

No special tool needed

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[1]:**
**9.3 min**

**45%** ⬇

Assembled parts (3)/
Screw points (2)

**Installation time[1]:**
**5.1 min**

[1] Tested on the AM022TNVDKHEU model compared with the Samsung AM022JNVDKHEU model under specific conditions and may vary on specific factors

## Easy Installation and Servicing

The TDM Plus 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.

# Innovations in detail

## TDM Plus Slim Duct

### 2-way Air Inlet

The TDM Plus Slim Duct has a 2-way air inlet – bottom or rear – that gives much more flexibility in selecting an installation location. It can be configured to provide the optimum airflow to almost any room, while being concealed behind ceilings.



### Slim & Compact Design (199 mm Height)

Enhance the look and feel of almost any space with the TDM Plus Slim Duct. Being 199 mm high and 700 mm[1] wide, its slim and compact design is highly elegant, so it can be discretely concealed in many locations. It also makes installation, maintenance and repair quick and easy, so it's ideal for a wide range of businesses and residential homes.

[1] Based on the AM036KNLDEH/EU model. The width of other models may vary.

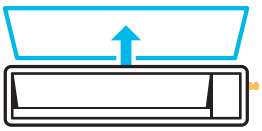
# TDM Plus Duct

## Auto ESP Adjustment

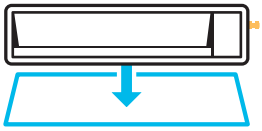
Enjoy maximum comfort and efficiency with minimum effort. The Auto ESP Adjustment automatically optimizes the air volume and pressure and minimizes noise, ensuring consistent cooling and heating in any situation. The external static pressure (ESP) can also be adjusted using a remote control. The Auto ESP adjustment feature is applicable only in MSP Duct lineup.


## 3-way Service Access

Install the ducted air conditioner in various locations, but still enjoy easy access for servicing. It can be accessed from three directions –top, side and bottom– using an easy to remove Slide Fit cover. So it's simple to maintain wherever it is installed in, which saves time and money.



Top access



Bottom access

Side access

# Innovations in detail

## TDM Plus Console

### Slim and Smart Design

The TDM Plus Console has a slim and smart design. Being just 199 mm thick, it will fit into almost any space and helps maintain optimal temperature. An innovative panel also prevents dust from accumulating. The black touchscreen display adds convenience and elegance.


### 2-Way Air Outlets

The 2-Way Air Outlets ensure that every inch of space quickly reaches the desired temperature, and stays that way. Warm air is expelled from the bottom air outlet, helping to spread warmth evenly throughout the room.


## Silent Mode

The TDM Plus Console allows for a selection of 4 operating modes (High, Medium, Low and Silent) to enjoy optimal heating and cooling in a variety of situations. In Silent mode it generates a quiet, but comfortable airflow with a noise level of 23 dB(A)[1].

[1] Based on internal testing. Results may vary depending on individual use.


014
015

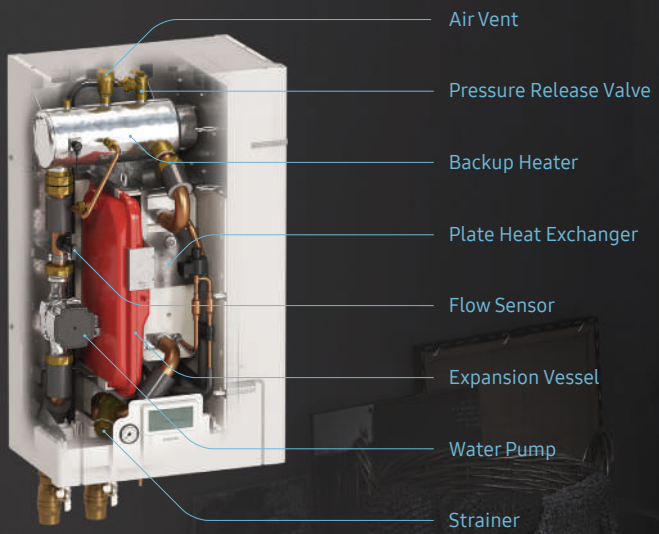
# Innovations in detail

## Wall-mounted Hydro Unit

### Flexibly fits into a limited space, easily expands to optimize your comfort

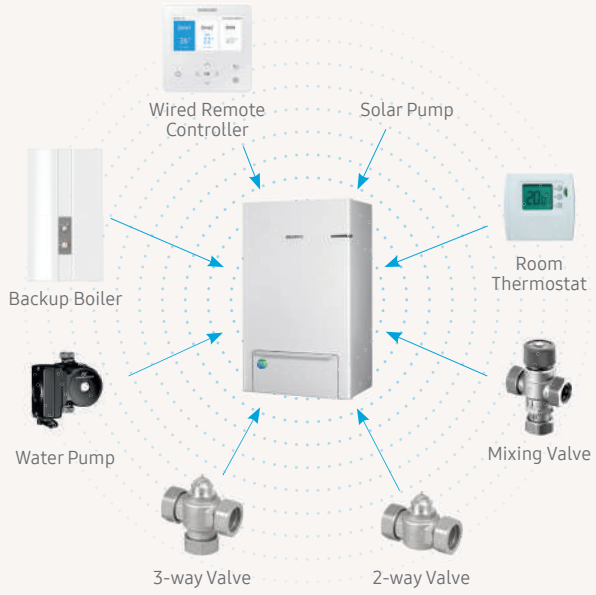
The Wall-mounted Hydro Unit contains a Plate Heat Exchanger where the heat collected outside is exchanged to the water system to heat your living space or domestic hot water on the inside. The compact design provides a lot of flexibility for installing. It includes a flow sensor and a backup heater to ensure that the required water temperature is always maintained. Single phase 230 V or three-phase 400 V models can be selected to suit the requirements of the house.

### Product Structure



## Requires less space, frees up more floor space

**Compact Design**
The Wall-mounted Hydro has a compact design that doesn't take up any extra space on the floor, you have much greater flexibility in choosing the right location to install it. In addition, it has similar shape and dimensions as conventional boiler systems, so it makes it simpler to replace or install it instead of a boiler.


## Easy to optimize for your needs

**A Variety of Pipe Fittings**
The Wall-mounted Hydro provides the functionality needed for interlocking control with various accessories that may be used in the design. You may simply choose from a variety of solutions and optimize the design to suit the specific conditions of the house and the needs of the users.

# Innovations in detail

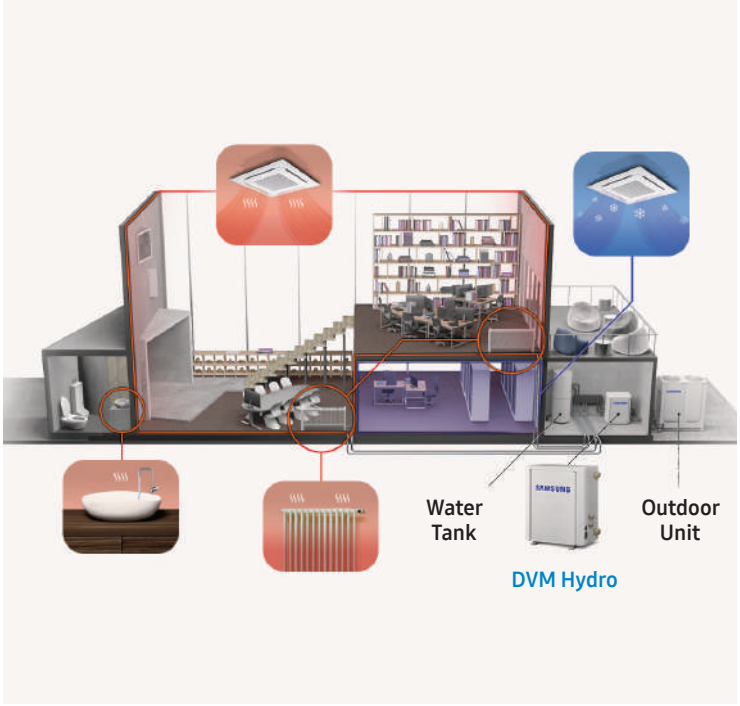
## DVM Hydro Unit

### Performance

The Samsung DVM Hydro unit provides a single solution for cooling, heating and hot water that is both efficient and easy to manage.

### An Integrated Solution in One System

The DVM Hydro system is compatible with all DVM S Eco and DVM S2 outdoor units and can be added to create a single, integrated solution for cooling, heating and hot water that's simple to manage. So it ensures much greater efficiency to suit a variety of demands, generating substantial energy and cost savings with its high-efficiency heat pump technology.





### 2 Types - with a Choice of Hot Water needs

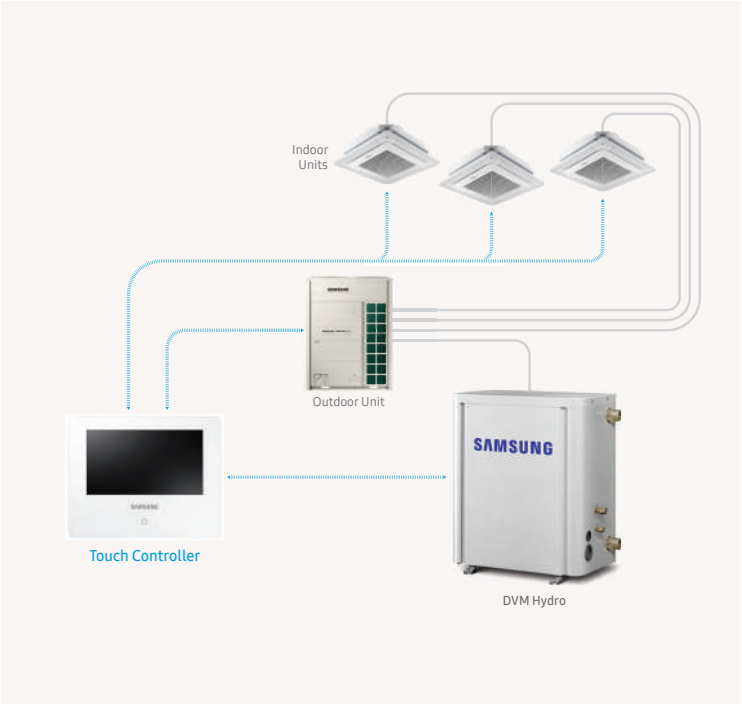
The DVM Hydro is available in two types. The DVM Hydro HE provides water at a mid temperature of 50 °C, while the DVM Hydro HT's advanced, double compression technology generates much hotter water at 80 °C.
The perfect solution to satisfy the requirements of various sites.

## Installation & Control

The Samsung DVM Hydro is easy to install and connect to a range of other devices, and can also be independently or centrally controlled.

## Simple & Easy Connection for External Control

The DVM Hydro is very quick and easy to install and use for many different purposes. It includes a range of connections for various external input and output devices, such as Tank Sensors, Booster Heaters, 2- and 3-way Valves, and Room Thermostats.





## Integrated Control System

The DVM Hydro can be independently or centrally operated along with a variety of Samsung DVM systems. For standalone use on individual sites it has its own control system or, using the Samsung DVM S Controller, it can be integrated with various DVM systems eg. for water and air, and managed centrally.

# Innovations in detail

## SmartThings

### New Generation Wireless Smart Home Automation

SmartThings is one of the largest open ecosystems of connected devices worldwide and is available on both Android and iOS. It is compatible with the leading voice assistants and a wide range of different brand devices, giving control over smart devices in one place.

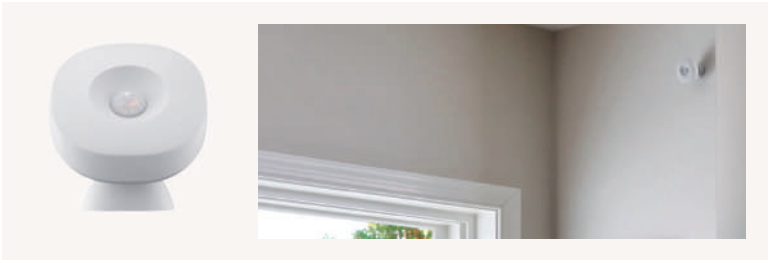
With the SmartThings App much more can be done than just turning devices on and off. The App makes it possible for devices from Samsung and other brands to work together easily at fixed times by creating “Automations” or “Scenes”. Additionally, the Geo-Fencing functionality allows the room temperature to be automatically set at the desired level when the user approaches within a preset distance.

### A wide range of smart devices can be managed

With the help of the SmartThings Hub a wide range of devices can be integrated into the ecosystem, manageable with a single app, through Zigbee and Z-Wave protocols, and make them interact with evolved logic. The user can receive security notifications, detect water leaks, or schedule lights to come on with SmartThings sensors and plugs. In this way, it is possible to create scenarios and automations by transforming the house into a smart home with simple gestures and without structural interventions.

### SmartThings Multipurpose sensor

Easily installable on doors and windows, it recognizes their opening thanks to a magnetic sensor. By using the multi purpose sensor you can reduce heat loss as the air conditioner or EHS will be turned off when the window is open.



### SmartThings Motion sensor

Allows to set automatic lighting and other devices when it detects movement. When away from home, the Motion sensor can send an alarm signal to the Smart Phone if it detects unwanted movements.

### SmartThings Hub

This is the brain of the Samsung home automation: It communicates with all devices that can be managed via the app and allows for management via SmartThings. Compatible with voice assistants like Bixby[1], Google Home[1] and Amazon Alexa[1].

[1] Voice control is supported by AI speakers such as Samsung Bixby 2.0, Google Assistant (Google Home) and Amazon Alexa. Google Assistant is not available in certain languages and countries. Google is a trademark of Google LLC.

**Compatible with:**

Bixby | works with amazon alexa | works with the Google Assistant



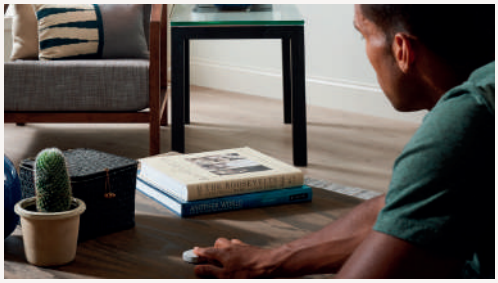
## SmartThings Water Leak sensor

Place this sensor near the ClimateHub water tank, shower and or pipes to detect any water leaks or condensation. This can help to quickly identify leakage when they occur.

## SmartThings button

The button can be positioned at any point of the house, allowing to activate any smart device connected to it, depending on the set mode.






Contact your local Samsung Representative for more information on SmartThings.

# Innovations in detail

## Anytime, anywhere: it's all in your hands

### SmartThings + Wi-Fi Kit 2.0

Let SmartThings[1] take care of your home so you can focus on what matters most in life. SmartThings[1] Home Care Wizard keeps tabs on your household devices, sends you notifications to replace parts, and offers trouble-shooting solutions if something goes wrong. Or simply tell Bixby what you want[2].


**Adjust settings**

Lets you monitor the indoor temperature and settings and adjust them.

**Energy monitoring**

Lets you view your daily, weekly, and monthly energy usage at a glance and notifies when you have exceeded your energy usage.

**Energy service**

Lets you quickly check the energy usage of multiple devices connected to the SmartThings App.

**Automation**

Automatically operates to suit your preferred home environment.

**Welcome heating**

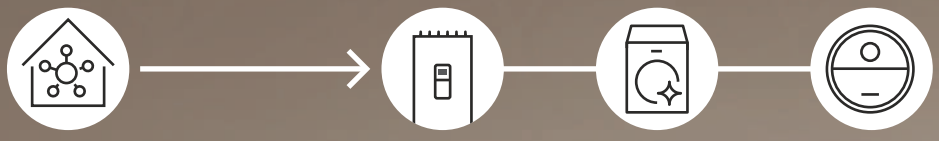
Performs pre-heating and/or pre-cooling before you arrive back home.


[1] Available on Android and iOS devices. A Wi-Fi connection, Samsung account and an optional Wi-Fi Kit (MIM-H04N) are required. The GUI images on this page may vary by the version of the SmartThings App.
[2] Bixby is Samsung's brand of artificial intelligence (AI)/Internet of Things (IoT) voice assistant. A Wi-Fi connection and a Samsung account are required. Bixby only recognises certain accents and dialects of English (UK), English (US), French (France), German (Germany), Italian (Italy), Korean (South Korea), Mandarin Chinese (China), Spanish (Spain) and Portuguese (Brazil). Other languages to be supported.

# Just walk into your home, and comfort welcomes you

## Home Automation with Geofencing functionality

The Samsung EHS will operate in your preferred mode according to the settings you choose. The geofencing functionality will be automatically activated within a pre-set distance of the building so pre-heating/cooling will start.



Scenario:
**Home Coming**

ClimateHub
**ON**

Washing Machine
**ON**

Robot Vacuum
**ON**

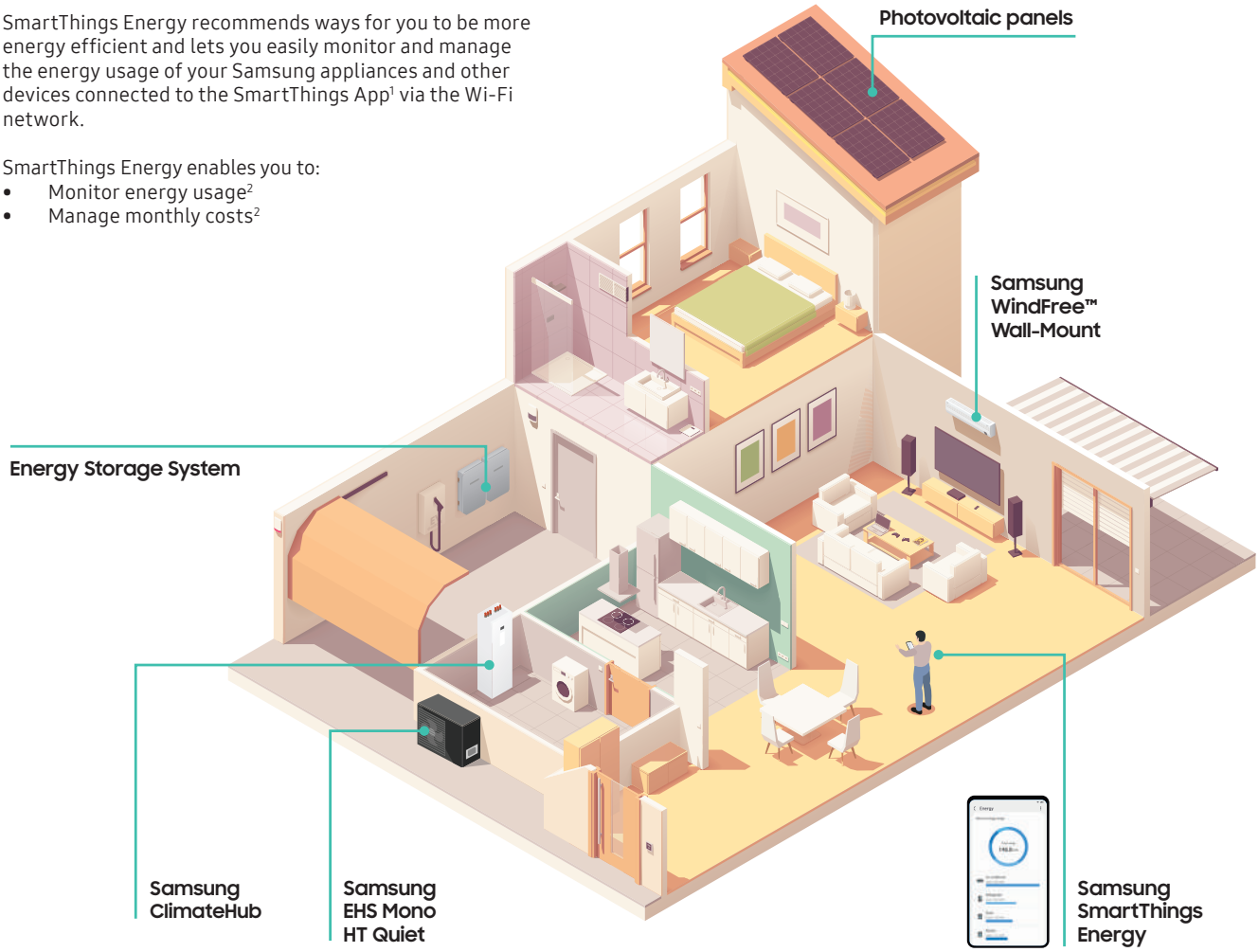
# SmartThings Energy

## Net Zero capable Home using SmartThings Energy

SmartThings Energy recommends ways for you to be more energy efficient and lets you easily monitor and manage the energy usage of your Samsung appliances and other devices connected to the SmartThings App[1] via the Wi-Fi network.

SmartThings Energy enables you to:

- Monitor energy usage[2]
- Manage monthly costs[2]




[1] Available on Android and iOS devices. A Wi-Fi connection, Samsung account and an optional Wi-Fi Kit (MIM-H04N) are required.
[2] The SmartThings AI Energy mode, when used by the end-user, can provide users with a possibility to save energy and/or costs with regard to their domestic hot water usage based on (repeatable) user patterns. A compatible Samsung Climate Hub is required. All savings are estimates. The actual savings vary and depend on, amongst others, usage, costs and operating conditions. The AI Energy mode may impact the product performance. End user may deactivate the AI Energy mode at any time.

## SmartThings Energy

| Energy Insight | Track Carbon Footprint | AI Saving Solution | Enabling a Net Zero Home | Smart Grid Ready |
|---|---|---|---|---|
| Energy consumption insight | Monitor carbon emissions | Energy saving solutions based on AI | Maximized use of solar energy | Utilization & integration with Smart Grid |

# Energy Consumption Insight

### Monitoring

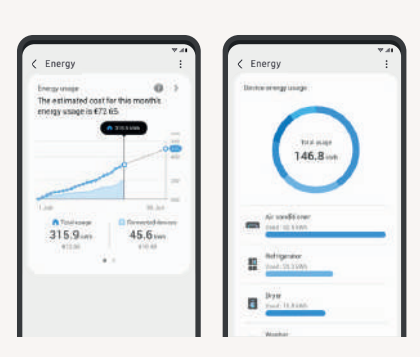
Tangibly shows **the energy usage and estimated cost** for all connected devices[2].

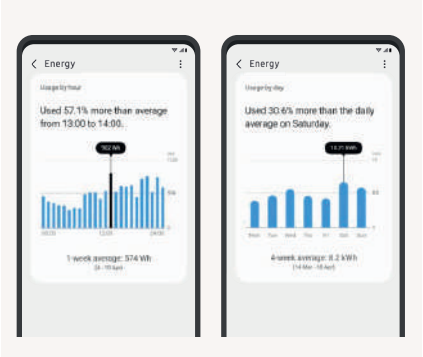
### Analysis

Provides **analytic reports for hourly and daily usage patterns**, which helps you save more.

### Notification

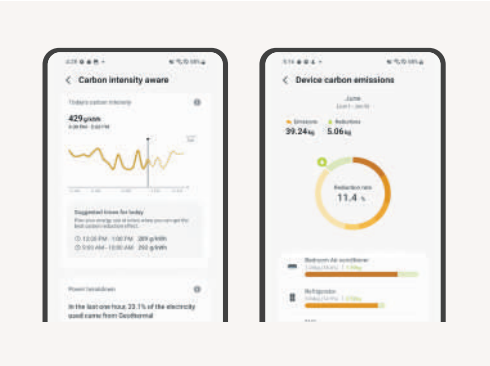
**Tracks your use of energy and notifies you** to be always aware of it.





[2] Home Appliances, HVAC and TV.




# AI Energy Mode

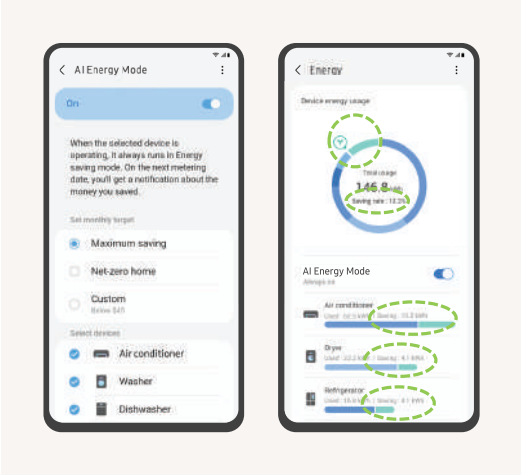
### One-touch saving

AI Energy mode enables Samsung home appliances to save energy while meeting optimal indoor comfort requirements.

### Various options

AI Energy Mode has various options for saving energy more efficiently based on estimated usage through an AI server. If it's determined that your estimated usage exceeds your target or you need to save energy, devices will run in AI Energy mode automatically.

**Monthly Energy Target** | **Net Zero** | **Smart Grid** (DR) | **Tariffs** (Tier, TOU) | **Maximum Saving**

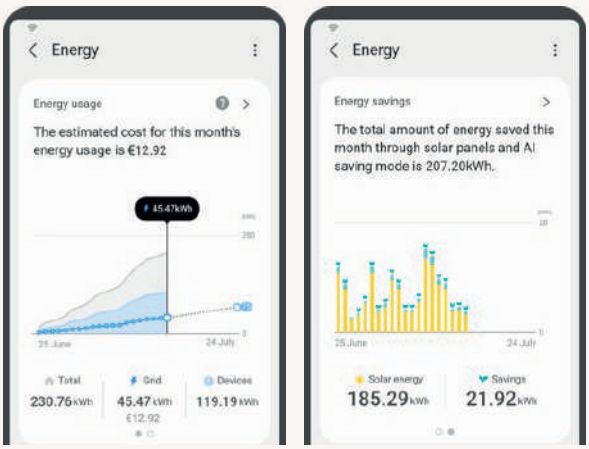


# SmartThings Energy

## Maximized use of solar energy

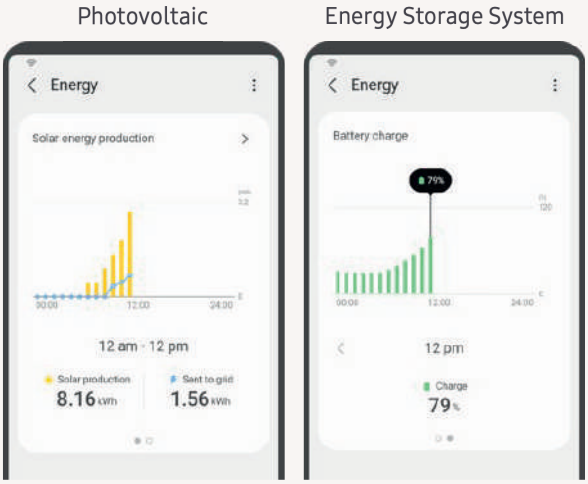
### Total/Grid Usage

Track electricity usage and estimated cost. Home energy monitoring is available considering self-generation through PV and ESS.



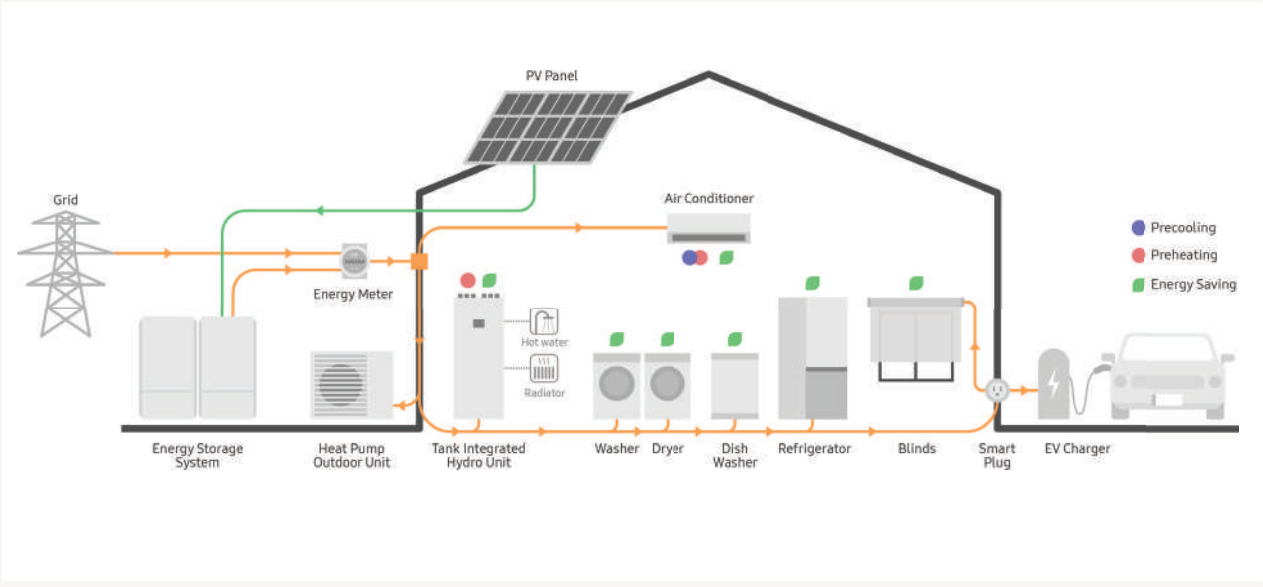

### Photovoltaic and Energy Storage System

Monitor your solar energy production and storage.




## Net Zero Home Integration

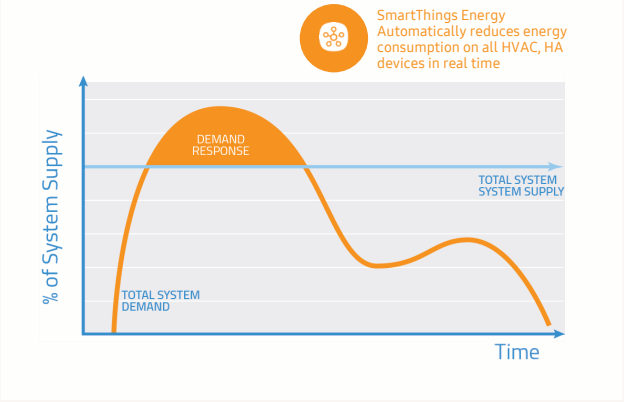
Create a Net Zero Home with Photovoltaic, Energy Storage system, devices and IoT integrated with SmartThings Energy.



# Load Management for Utility Partners

## Demand Response

Help utilities prevent grid congestion by reducing energy consumption of our appliances during peak hours.



# EHS


SAMSUNG

# Line-up

## ClimateHub


Outdoor Unit

Tank Integrated Hydro Unit

| Type | | Power | Model Name | Capacity | Tank Integrated Hydro Unit (Split) | | | Tank Integrated Hydro Unit (Mono) | | | Tank Integrated Hydro Unit (TDM Plus) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 200 L (1Φ) | 260 L (1Φ) | 260 L (3Φ) | 200 L (1Φ) | 260 L (1Φ) | 260 L (3Φ) | 200 L (1Φ) | 260 L (1Φ) |
| | | | | | AE200RNWSEG/EU | AE260RNWSEG/EU | AE260RNWSGG/EU | AE200CNWMEG/EU | AE260CNWMEG/EU | AE260CNWMGG/EU | AE200TNWTEH/EU | AE260TNWTEH/EU |
| R32 Outdoor Unit | Mono | 1Φ | AE050RXYDEG/EU | 5.0 kW | | | | ● | | | | |
| | | | AE080RXYDEG/EU | 8.0 kW | | | | ● | ● | | | |
| | | | AE120RXYDEG/EU | 12.0 kW | | | | ● | ● | | | |
| | | | AE160RXYDEG/EU | 16.0 kW | | | | ● | ● | | | |
| | | 3Φ | AE080RXYDGG/EU | 8.0 kW | | | | | | ● | | |
| | | | AE120RXYDGG/EU | 12.0 kW | | | | | | ● | | |
| | | | AE160RXYDGG/EU | 16.0 kW | | | | | | ● | | |
| | Split | 1Φ | AE040RXEDEG/EU | 4.0 kW | ● | ● | | | | | | |
| | | | AE060RXEDEG/EU | 6.0 kW | ● | ● | | | | | | |
| | | | AE090RXEDEG/EU | 9.0 kW | ● | ● | | | | | | |
| | | 3Φ | AE090RXEDGG/EU | 9.0 kW | | | ● | | | | | |
| R410A Outdoor Unit | TDM Plus | 1Φ | AE044MXTPEH/EU | 4.4 kW | | | | | | | ● | ● |
| | | | AE066MXTPEH/EU | 6.6 kW | | | | | | | ● | ● |
| | | | AE090MXTPEH/EU | 9.0 kW | | | | | | | ● | ● |
| | | | AE120MXTPEH/EU | 12.0 kW | | | | | | | | ● |
| | | | AE160MXTPEH/EU | 16.0 kW | | | | | | | | ● |
| | | 3Φ | AE090MXTPGH/EU | 9.0 kW | | | | | | | ● | ● |
| | | | AE120MXTPGH/EU | 12.0 kW | | | | | | | | ● |
| | | | AE160MXTPGH/EU | 16.0 kW | | | | | | | | ● |
| R32 Outdoor Unit | Mono HT Quiet | 1Φ | AE080BXYDEG/EU | 8.0 kW | | | | ● | ● | | | |
| | | | AE120BXYDEG/EU | 12.0 kW | | | | ● | ● | | | |
| | | | AE160BXYDEG/EU | 16.0 kW | | | | ● | ● | | | |
| | | 3Φ | AE080BXYDGG/EU | 8.0 kW | | | | | | ● | | |
| | | | AE120BXYDGG/EU | 12.0 kW | | | | | | ● | | |
| | | | AE160BXYDGG/EU | 16.0 kW | | | | | | ● | | |

# TDM Plus Indoor




| Type | | WindFree™ Deluxe | Slim Duct | MSP Duct | Console |
|---|---|---|---|---|---|
| Capacity | 2.2 kW | ● | ● | | ● |
| | 2.8 kW | ● | ● | | ● |
| | 3.6 kW | ● | ● | ● | ● |
| | 5.6 kW | ● | ● | ● | ● |
| | 7.1 kW | ● | | ● | |
| | 9.0 kW | | | ● | |

# Optional Controller

Bixby
SmartThings

| Model | MIM-H04EN |
|---|---|
| Model name | Wi-Fi Kit 2.0 |
| Maximum connectible Indoor Units | 16 |
| App | SmartThings |
| Voice recognition | Bixby |
| Welcome Cooling/Heating | Geofencing |
| Automation | Customised control with a variety of execution rules |
| Add scene | Easy control throughout customised user mode |
| Energy monitoring | Individual energy monitoring up to 16 outdoor units |
| Product dimensions (mm) W x H x D | 185 x 130 x 29 |

| Model | MWR-WW10*N |
|---|---|
| Model name | Touch Controller |
| Screen size/type | 4.3" Color LCD display |
| Intuitive user interface | Dynamic navigation with simplified buttons |
| Operation | Heating / Cooling/ Auto / DHW |
| Functions | Smart Grid Ready / PV Ready / 2-zone Control / Energy consumption monitor / Energy saving |
| Smart connectivity | SmartThings via optional Wi-Fi Kit 2.0 |
| Languages | |
| MWR-WW10N | English, German, French, Italian, Spanish, Polish (EN, DE, FR, IT, ES, PL) |
| MWR-WW10JN | English, Portuguese, Dutch, Greek, Czech, Slovak (EN, PT, NL, EL, CS, SK) |
| MWR-WW10KN | English, Finnish, Swedish, Norwegian, Danish, Lithuanian (EN, FI, SV, NO, DA, LT) |
| Product dimensions (mm) W x H x D | 120x120x19 |

# Line-up

## EHS with Third Party DHW Tank

**Mono with Third Party DHW Tank**

Outdoor Unit

Mono Control Kit

DHW Tank (third party)

| Type | | Power | Model Name | Capacity | Mono MIM-E03CN |
|---|---|---|---|---|---|
| R32 Outdoor Unit | Mono | 1Φ | AE050RXYDEG/EU | 5.0 kW | ● |
| | | | AE080RXYDEG/EU | 8.0 kW | ● |
| | | | AE120RXYDEG/EU | 12.0 kW | ● |
| | | | AE160RXYDEG/EU | 16.0 kW | ● |
| | | 3Φ | AE080RXYDGG/EU | 8.0 kW | ● |
| | | | AE120RXYDGG/EU | 12.0 kW | ● |
| | | | AE160RXYDGG/EU | 16.0 kW | ● |

**Split with Third Party DHW Tank**

Outdoor Unit

Wall-Mounted Hydro Unit

DHW Tank (third party)

| Type | | Power | Model Name | Capacity | Wall-Mounted Hydro Unit: Split (1Φ) AE090RNYDEG/EU | Wall-Mounted Hydro Unit: Split (3Φ) AE090RNYDGG/EU |
|---|---|---|---|---|---|---|
| R32 Outdoor Unit | Split | 1Φ | AE040RXEDEG/EU | 4.0 kW | ● | |
| | | | AE060RXEDEG/EU | 6.0 kW | ● | |
| | | | AE090RXEDEG/EU | 9.0 kW | ● | |
| | | 3Φ | AE090RXEDGG/EU | 9.0 kW | | ● |
| | | | | | AE160ANYDEH/EU | AE160ANYDGH/EU |
| R410A Outdoor Unit | Split | 1Φ | AE120AXEDEH/EU | 12.0 kW | ● | |
| | | | AE160AXEDEH/EU | 16.0 kW | ● | |
| | | 3Φ | AE120AXEDGH/EU | 12.0 kW | | ● |
| | | | AE160AXEDGH/EU | 16.0 kW | | ● |

# TDM Plus with Third Party DHW Tank

TDM Plus with Third Party DHW Tank

Outdoor Unit

Wall-Mounted Hydro Unit

DHW Tank (third party)

| Type | | Power | Model Name | Capacity | Wall-Mounted Hydro Unit | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Split (1Φ) | | Split (3Φ) | |
| | | | | | AE090BNYDEH/EU | AE160BNYDEH/EU | AE090BNYDGH/EU | AE160BNYDGH/EU |
| R410A TDM Plus Outdoor Unit | Split | 1Φ | AE044MXTPEH/EU | 4.4 kW | ● | | | |
| | | | AE066MXTPEH/EU | 6.6 kW | ● | | | |
| | | | AE090MXTPEH/EU | 9.0 kW | ● | | | |
| | | | AE120MXTPEH/EU | 12.0 kW | | ● | | |
| | | | AE160MXTPEH/EU | 16.0 kW | | ● | | |
| | | 3Φ | AE090MXTPGH/EU | 9.0 kW | | | ● | |
| | | | AE120MXTPGH/EU | 12.0 kW | | | | ● |
| | | | AE160MXTPGH/EU | 16.0 kW | | | | ● |

# Line-up

## Renovation Solutions

### R290 Mono

Outdoor Unit


Mono Control Kit

DHW Tank
(third party)

| Type | | Power | Model Name | Capacity | Mono<br>MIM-E03CN/MIM-E03EN* |
|---|---|---|---|---|---|
| R290 Outdoor Unit | Mono | 1Φ | AE050CXYDEK/EU | 5.0 kW | ● |
| | | | AE080CXYDEK/EU | 8.0 kW | ● |
| | | | AE120CXYDEK/EU | 12.0 kW | ● |
| | | | AE160CXYDEK/EU | 16.0 kW | ● |
| | | 3Φ | AE080CXYDGK/EU | 8.0 kW | ● |
| | | | AE120CXYDGK/EU | 12.0 kW | ● |
| | | | AE160CXYDGK/EU | 16.0 kW | ● |

* MIM-E03EN has additional features: Smart Grid ready/PV Enabled/2-Zone control

### EHS Mono HT Quiet

Outdoor Unit


Mono Control Kit

DHW Tank
(third party)

| Type | | Power | Model Name | Capacity | Mono<br>MIM-E03CN/MIM-E03EN* |
|---|---|---|---|---|---|
| R32 Outdoor Unit | Mono HT Quiet | 1Φ | AE080BXYDEG/EU | 8.0 kW | ● |
| | | | AE120BXYDEG/EU | 12.0 kW | ● |
| | | | AE140BXYDEG/EU | 14.0 kW | ● |
| | | 3Φ | AE080BXYDGG/EU | 8.0 kW | ● |
| | | | AE120BXYDGG/EU | 12.0 kW | ● |
| | | | AE140BXYDGG/EU | 14.0 kW | ● |

* MIM-E03EN has additional features: Smart Grid ready/PV Enabled/2-Zone control

# Central Heating Solutions

DVM with Hydro Unit

Outdoor Unit

Hydro Unit HT/HE

DHW Tank (third party)

| Type | | Power | Model Name | Capacity | Hydro Unit HT (High Temperature) | | | | Hydro Unit HE (High Efficiency) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Split (1Φ) | | Split (3Φ) | | Split (1Φ) | | |
| | | | | | AM160TNBFEB/EU | AM250TNBFEB/EU | AM160TNBFGB/EU | AM250TNBFGB/EU | AM160FNBDEH/EU | AM320FNBDEH/EU | AM500FNBDEH/EU |
| R410A DVM Outdoor Unit | DVM S Eco Heat pump (HP) | 3Φ | AM100BXMWGH/EU | 10 HP/ 28 kW | | | | | | ● | |
| | DVM S Eco Heat recovery (HR) | 1Φ | AM050BXMDER/EU | 5 HP/ 14 kW | ● | | | | ● | | |
| | | 3Φ | AM050BXMDGR/EU | 5 HP/ 14 kW | | | ● | | | | |
| | DVM S2 Essential Heat pump (HP) | 3Φ | AM100AXVDGH/EU | 10 HP/ 28 kW | | | | | | ● | |
| | | 3Φ | AM160AXVDGH/EU | 16 HP/ 45 kW | | | | | | | ● |
| | DVM S2 Standard Heat Pump (HP) | 3Φ | AM080AXVAGH/EU | 8 HP/ 22.4kW | | ● | | ● | | | |
| | | 3Φ | AM100AXVAGH/EU | 10 HP/ 28 kW | | | | | | ● | |
| | | 3Φ | AM160AXVAGH/EU | 16 HP/ 45 kW | | | | | | | ● |
| | DVM S2 High EER Heat pump (HP) | 3Φ | AM080AXVGGH/EU | 8 HP/ 22.4kW | | ● | | ● | | | |
| | | 3Φ | AM100AXVGGH/EU | 10 HP/ 28 kW | | | | | | ● | |
| | | 3Φ | AM160AXVGGH/EU | 16 HP/ 45 kW | | | | | | | ● |
| | DVM S2 High EEE Heat recovery (HR) | 3Φ | AM080AXVGGR/EU | 8 HP/ 22.4kW | | ● | | ● | | | |
| | | 3Φ | AM100AXVGGR/EU | 10 HP/ 28 kW | | | | | | ● | |
| | | 3Φ | AM160AXVGGR/EU | 16 HP/ 45 kW | | | | | | | ● |

# Selecting the right heating system

| | | New Built (up to 16 kW) |
|---|---|---|
| | | ClimateHub |
| | |  |
| | | Mono / Split (R32) |
| Main Function | A2W Cooling | ● |
| | A2W Heating | ● |
| | A2W Domestic Hot Water | ● |
| | A2A Cooling | |
| | Maximum Allowable Indoor unit Connections | |
| Comfort | Colour Display | ● |
| | Low Noise[1] | ● |
| | Outing | ● |
| | Schedule / Holiday Mode | ● |
| | Emergency Operation | ● |
| Feature | Wi-Fi Kit SmartThings | ● |
| | Wired Remote Controller | ●[2] |
| | Zone Controller | ● |
| | Mixing Valve[4] | ● |
| | 3-Way Valve | ● |
| | 2-Way Valve[4] | ● |
| | Thermostat Control | ● |
| | PV Integrated | ● |
| | Smart Grid Ready | ● |
| | Energy Consumption Monitoring | ● |
| | Set FSV with SD Card | ● |
| Smart Install | Smart Checking | ● |

| | | TDM Plus (R410A) |
|---|---|---|
| Main Function | A2W Cooling | ● |
| | A2W Heating | ● |
| | A2W Domestic Hot Water | ● |
| | A2A Cooling | ● |
| | Maximum Allowable Indoor unit Connections | up to 7 Indoor units |
| Comfort | Colour Display | ● |
| | Low Noise[1] | ● |
| | Outing | ● |
| | Schedule / Holiday Mode | ● |
| | Emergency Operation | ● |
| Feature | Wi-Fi Kit SmartThings | ● |
| | Wired Remote Controller | ●[2] |
| | Zone Controller | ● |
| | Mixing Valve[4] | ● |
| | 3-Way Valve | ● |
| | 2-Way Valve[4] | ● |
| | Thermostat Control | ● |
| | PV Integrated | ● |
| | Smart Grid Ready | ● |
| | Energy Consumption Monitoring | ● |
| | Set FSV with SD Card | ● |
| Smart Install | Smart Checking | ● |

| New Built (up to 16 kW) | | | | Renovation Solutions | | Central Heating Solutions |
|---|---|---|---|---|---|---|
| Third Party DHW Tank solutions | | | | R290 Mono | EHS Mono HT Quiet | DVM S Eco/DVM S2 with Hydro |
|  |  |  |  |  |  |  |
| **Mono** (R32) | **Split** (R32) | **Split** (R410A) | **TDM Plus** (R410A) | **Mono** (R290) | **Mono** (R32) | **DVM with Hydro** (R410A) |
| ● | ● | ● | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● | ● |
| | | | ● | | | ● |
| | | | up to 7 Indoor units | | | up to 64 Indoor units |
| ● | ● | ● | | ● | ● | ● |
| ● | ● | ● | ● | ● | ● | ● (DVM S2) |
| ● | ● | ● | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● | ● |
| ● [2] | ● | ● | ● | ● [2] | ● [2] | ● |
| ● [3] | ● | ● | ● [3] | ● [3] | ● [3] | ● |
| ● | ● | ● | ● | ● | ● | ● |
| ● [4] | ● [4] | ● [4] | ● [4] | ● [4] | ● [4] | ● |
| ● | ● | ● | ● | ● | ● | ● |
| ● | ● | ● | ● | ● | ● | ● |
| ● | ● | ● | | ● | ● | ● |
| | ● | ● | | ● | ● | ● |
| ● | ● | ● | | ● | ● | ● |
| | | | | | | ● |
| ● | ● | ● | ● | ● | ● | ● |

[1] Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.
[2] Wired Remote Controller to be ordered separately. [3] In combination with an external room sensor. [4] Not provided by Samsung.

# Nomenclature

## Indoor units

| AE | 260 | A | N | W | S | E | G |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

| | | | |
|---|---|---|---|
| 1 | Classification | AE | EHS |
| | | AM | DVM |
| 2 | Capacity | | x1/10 kW (3 digits) |
| | | | x Litre (3 digits) |
| 3 | Year | J | 2015 |
| | | M | 2017 |
| | | R | 2019 |
| | | T | 2020 |
| | | A | 2021 |
| | | B | 2022 |
| 4 | Product Type | N | Indoor Unit (NASA) |
| 5 | Product Notation | A/X | RAC Wall-Mounted |
| | | B | Hydro Unit |
| | | J | Console |
| | | L | LSP Duct |
| | | M | MSP Duct |
| | | W | Tank Integrated Hydro Unit |
| | | Y | Wall-Mounted Hydro Unit |
| 6 | Feature | D | Standard |
| | | P | |
| | | F | Flagship |
| | | M | Mono |
| | | S | Split |
| | | T | TDM Plus |
| 7 | Rating Voltage | E | 1Φ, 220~240 V, 50 Hz |
| | | G | 3Φ, 380~415 V, 50 Hz |
| 8 | Mode | B | R134 Heat Pump |
| | | G | R32 Heat Pump |
| | | H | R410A Heat Pump |

# Outdoor units

| AE | 090 | A | X | E | D | E | G |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

| | | | |
|---|---|---|---|
| 1 | Classification | AE | EHS |
| | | AM | DVM |
| 2 | Capacity | | x1/10 kW (3 digits) |
| 3 | Year | F | 2013 |
| | | J | 2015 |
| | | K | 2016 |
| | | M | 2017 |
| | | N | 2018 |
| | | R | 2019 |
| | | A | 2021 |
| | | B | 2022 |
| 4 | Product Type | X | Outdoor Unit (NASA) |
| 5 | Product Notation | E | Split |
| | | M | DVM S Eco |
| | | T | TDM Plus |
| | | Y | Mono |
| 6 | Feature | D | Standard |
| | | P | |
| 7 | Rating Voltage | E | 1Φ, 220~240 V, 50 Hz |
| | | G | 3Φ, 380~415 V, 50 Hz |
| 8 | Mode | G | R32 Heat Pump |
| | | H | R410A Heat Pump |
| | | R | Heat Recovery |

# Mono

Project: Atico en el Retiro (Spain)
Project Architecture: ÁBATON
Interior Design: BATAVIA
Photography: Belén Imaz

# Specifications

## ClimateHub Mono with built-in Wi-Fi R32

- Integrated solution for heating and domestic hot water.
- Compact unit size with large water tank (200 L & 260 L).
- Intuitive, colour screen touch controller in multiple languages.
- Energy monitoring through touch controller.
- Smooth servicing through the front-mounted service window.
- PV and Smart Grid ready.
- 2-zone Control, suitable for floor heating and radiators.
- SCOP rating of A+++*.
- Single Wi-Fi kit module is embedded into the ClimateHub Mono only. A Wi-Fi connection and Samsung SmartThings application and EHS Cloud Service account are required.
- Backup heater is included to ensure a minimum water temperature.




| | Indoor Unit<br>Outdoor Unit<br>Controller | | | | AE200CNWMEG/EU<br>AE050RXYDEG/EU<br>MWR-WW10N | AE200CNWMEG/EU<br>AE080RXYDEG/EU<br>MWR-WW10N | AE200CNWMEG/EU<br>AE120RXYDEG/EU<br>MWR-WW10N |
|---|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1] / A7/W55[2] | kW | 5.0/4.3 | 8.0/7.1 | 12.0/11.3 |
| | | | Cooling A35/W18[1] | kW | 5.0 | 7.5 | 12.0 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 1.03/1.52 | 1.77/2.53 | 2.65/3.73 |
| | | | Cooling A35/W18[1] | kW | 1.14 | 1.90 | 2.77 |
| | | COP (Nominal Heating) A7/W35[1] / A7/W55[2] | | W/W | 4.85/2.83 | 4.52/2.81 | 4.53/3.03 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4.39 | 3.95 | 4.33 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 4.46/3.2 | 4.44/3.23 | 4.69/3.51 |
| | | Seasonal Space Heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 175/ 125 | 175/ 126 | 185/ 138 |
| | | Seasonal Space Heating Eff. class * LWT 35°C/ 55°C | | - | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| | | Current | MCA | A | 16.00 | 22.00 | 28.00 |
| | | | MFA | A | 20.00 | 27.50 | 35.00 |
| | | Water Flow Rate | Low / Medium temperature | l/min | 14.4/7.8 | 23.1/12.8 | 34.6/20.4 |
| | | Leaving Water Temperature[3] | Heating | °C | 15~65 | 15~65 | 15~65 |
| | | | Cooling | °C | 5~25 | 5~25 | 5~25 |
| | Functions | Smart Grid Ready / PV Enabled | | - | • | • | • |
| | | 3-Step Quiet Mode | | - | • | • | • |
| | | 2-zone Control | | - | • | • | • |
| Tank Integrated Hydro Unit | 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 |
| | Water Tank Volume | | | litres | 200 | 200 | 200 |
| | Declared Load Profile | | | L/XL | L | L | L |
| | Average water heating efficiency ηwh | | | ETA% | 115 | 115 | 110 |
| | Average Energy Efficiency Class | | | - | A | A | A |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 26 | 26 | 30 |
| | | | Cooling Std | dB(A) | 26 | 26 | 30 |
| | | Sound Power | Heating Std | dB(A) | 40 | 40 | 44 |
| | Heater | Back-up heater Capacity | Default (Option) | kW | 2 (4/6) | 2 (4/6) | 2 (4/6) |
| | Piping | Water Pipe (Space Heating) | Inlet/ Outlet | Φ, mm | 28/28 | 28/28 | 28/28 |
| | | Water pipe (DHW) | Inlet/ Outlet | Φ, mm | 22/22 | 22/22 | 22/22 |
| | Dimensions | Net Weight | | kg | 130.0 | 130.0 | 130.0 |
| | | Net Dimensions (WxHxD) | | mm | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| Outdoor Unit | Power Supply | | | Φ, V, Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz |
| | Compressor | Type | | - | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| | Base Heater | Capacity | | kW | - | 0.15 | 0.15 |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 45 | 48 | 50 |
| | | | Cooling Std | dB(A) | 45 | 48 | 50 |
| | | Sound Power | Heating Std | dB(A) | 61 | 63 | 64 |
| | Dimensions | Net Weight | | kg | 58.5 | 76.0 | 110.0 |
| | | Net Dimensions (WxHxD) | | mm | 880 x 798 x 310 | 940 x 998 x 330 | 940 x 1,420 x 330 |
| | Refrigerant | Type | | | R32 (Fluorinated greenhouse gas, GWP=675) | | |
| | | Factory Charging | | $tCO_2e$ | 0.68 | 0.78 | 1.49 |
| | | | | kg | 1.00 | 1.15 | 2.20 |
| | Piping | Water Pipe (Space Heating) | Inlet/ Outlet | Φ, mm | 28/28 | 28/28 | 28/28 |
| | Operation | Ambient Temperature | Heating | °C | -25~35 | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 | -25~43 |

## Accessories

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| Touch Controller | Touch Controller | DMS2.5 | Wi-Fi Kit | External Room Sensor | Backup Heater (4/6kW) |
| MWR-WW10*N | MCM-A300N | MIM-D01AN | MIM-H04EN | MRW-TA | MHC-*00FE |

|  |  |  |  |
|---|---|---|---|
| AE200CNWMEG/EU<br>AE160RXYDEG/EU<br>MWR-WW10N | AE260CNWMEG/EU<br>AE080RXYDEG/EU<br>MWR-WW10N | AE260CNWMEG/EU<br>AE120RXYDEG/EU<br>MWR-WW10N | AE260CNWMEG/EU<br>AE160RXYDEG/EU<br>MWR-WW10N |
| 16.0/15.0 | 8.0/7.1 | 12.0/11.3 | 16.0/15.0 |
| 14.0 | 7.5 | 12.0 | 14.0 |
| 3.62/5.18 | 1.77/2.53 | 2.65/3.73 | 3.62/5.18 |
| 3.28 | 1.90 | 2.77 | 3.28 |
| 4.42/2.90 | 4.52/2.81 | 4.53/3.03 | 4.42/2.90 |
| 4.27 | 3.95 | 4.33 | 4.27 |
| 4.48/3.53 | 4.44/3.23 | 4.69/3.51 | 4.48/3.53 |
| 176/ 138 | 175/ 126 | 185/ 138 | 176/ 138 |
| A+++ / A++ | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| 32.00 | 22.00 | 28.00 | 32.00 |
| 40.00 | 27.50 | 35.00 | 40.00 |
| 46.2/27.1 | 23.1/12.8 | 34.6/20.4 | 46.2/27.1 |
| 15~65 | 15~65 | 15~65 | 15~65 |
| 5~25 | 5~25 | 5~25 | 5~25 |
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |
| 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 |
| 200 | 260 | 260 | 260 |
| L | XL | XL | XL |
| 110 | 123 | 117 | 117 |
| A | A | A | A |
| 30 | 26 | 30 | 30 |
| 30 | 26 | 30 | 30 |
| 44 | 40 | 44 | 44 |
| 2 (4/6) | 2 (4/6) | 2 (4/6) | 2 (4/6) |
| 28/28 | 28/28 | 28/28 | 28/28 |
| 22/22 | 22/22 | 22/22 | 22/22 |
| 130.0 | 140.0 | 140.0 | 140.0 |
| 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz |
| BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| 0.15 | 0.15 | 0.15 | 0.15 |
| 52 | 48 | 50 | 52 |
| 54 | 48 | 50 | 54 |
| 66 | 63 | 64 | 66 |
| 110.0 | 76.0 | 110.0 | 110.0 |
| 940 x 1,420 x 330 | 940 x 998 x 330 | 940 x 1,420 x 330 | 940 x 1,420 x 330 |
| R32 (Fluorinated greenhouse gas, GWP=675) | | | |
| 1.49 | 0.78 | 1.49 | 1.49 |
| 2.20 | 1.15 | 2.20 | 2.20 |
| 28/28 | 28/28 | 28/28 | 28/28 |
| -25~35 | -25~35 | -25~35 | -25~35 |
| 10~46 | 10~46 | 10~46 | 10~46 |
| -25~43 | -25~43 | -25~43 | -25~43 |

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*A+++ energy label is available according to EU No. 811/2013 label classification 2019, on a scale from D to A+++

[1] A2W Condition : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Specifications

## ClimateHub Mono with built-in Wi-Fi (Continued) R32




| | Indoor Unit<br>Outdoor Unit<br>Controller | | | | AE260CNWMGG/EU<br>AE080RXYDGG/EU<br>MWR-WW10N | AE260CNWMGG/EU<br>AE120RXYDGG/EU<br>MWR-WW10N | AE260CNWMGG/EU<br>AE160RXYDGG/EU<br>MWR-WW10N |
|---|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1] / A7/W55[2] | kW | 8.0/7.1 | 12.0/11.3 | 16.0/15.0 |
| | | | Cooling A35/W18[1] | kW | 7.5 | 12.0 | 14.0 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 1.77/2.53 | 2.65/3.73 | 3.62/5.18 |
| | | | Cooling A35/W18[1] | kW | 1.90 | 2.77 | 3.28 |
| | | COP (Nominal Heating) A7/W35[1] / A7/W55[2] | | W/W | 4.52/2.81 | 4.53/3.03 | 4.42/2.90 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 3.95 | 4.33 | 4.27 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 4.44/3.23 | 4.69/3.51 | 4.48/3.53 |
| | | Seasonal Space Heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 175/ 126 | 185/ 138 | 176/ 138 |
| | | Seasonal Space Heating Eff. class * LWT 35°C/ 55°C | | - | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| | | Current | MCA | A | 10.00 | 10.00 | 12.00 |
| | | | MFA | A | 16.10 | 16.10 | 16.10 |
| | | Water Flow Rate | Low / Medium temperature | l/min | 23.1/12.8 | 34.6/20.4 | 46.2/27.1 |
| | | Leaving Water Temperature[3] | Heating | °C | 15~65 | 15~65 | 15~65 |
| | | | Cooling | °C | 5~25 | 5~25 | 5~25 |
| | Functions | Smart Grid Ready / PV Enabled | | - | • | • | • |
| | | 3-Step Quiet Mode | | - | • | • | • |
| | | 2-zone Control | | - | • | • | • |
| Tank Integrated Hydro Unit | 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 |
| | Water Tank Volume | | | litres | 260 | 260 | 260 |
| | Declared Load Profile | | | L/XL | XL | XL | XL |
| | Average water heating efficiency ηwh | | | ETA% | 123 | 117 | 117 |
| | Average Energy Efficiency Class | | | - | A | A | A |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 26 | 30 | 30 |
| | | | Cooling Std | dB(A) | 26 | 30 | 30 |
| | | Sound Power | Heating Std | dB(A) | 40 | 44 | 44 |
| | Heater | Back-up heater Capacity | Default (Option) | kW | 6 | 6 | 6 |
| | Piping | Water Pipe (Space Heating) | Inlet/ Outlet | Φ, mm | 28/28 | 28/28 | 28/28 |
| | | Water pipe (DHW) | Inlet/ Outlet | Φ, mm | 22/22 | 22/22 | 22/22 |
| | Dimensions | Net Weight | | kg | 140.0 | 140.0 | 140.0 |
| | | Net Dimensions (WxHxD) | | mm | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| Outdoor Unit | Power Supply | | | Φ, V, Hz | 3Φ, 380~415 V, 50 Hz | 3Φ, 380~415 V, 50 Hz | 3Φ, 380~415 V, 50 Hz |
| | Compressor | Type | | - | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| | Base Heater | Capacity | | kW | 0.15 | 0.15 | 0.15 |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 48 | 50 | 52 |
| | | | Cooling Std | dB(A) | 48 | 50 | 54 |
| | | Sound Power | Heating Std | dB(A) | 63 | 64 | 66 |
| | Dimensions | Net Weight | | kg | 75.0 | 111.0 | 111.0 |
| | | Net Dimensions (WxHxD) | | mm | 940 x 998 x 330 | 940 x 1,420 x 330 | 940 x 1,420 x 330 |
| | Refrigerant | Type | | | R32 (Fluorinated greenhouse gas, GWP=675) | | |
| | | Factory Charging | | $tCO_2e$ | 0.78 | 1.49 | 1.49 |
| | | | | kg | 1.15 | 2.20 | 2.20 |
| | Piping | Water Pipe (Space Heating) | Inlet/ Outlet | Φ, mm | 28/28 | 28/28 | 28/28 |
| | Operation | Ambient Temperature | Heating | °C | -25~35 | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 | -25~43 |

Project: Atico en el Retiro (Spain)
Project Architecture: ÁBATON
Interior Design: BATAVIA
Photography: Belén Imaz

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[1] A2W Condition : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Specifications

## Mono with Third Party DHW Tank R32

- Intuitive, colour screen touch controller in multiple languages.
- Energy monitoring through touch controller.
- PV and Smart Grid ready.
- 2-zone Control, suitable for floor heating and radiators.
- SmartThings compatible with optional Wi-Fi kit.
- Backup heater is recommended to ensure a minimum water temperature.



| | Outdoor Unit<br>Control Kit | | | | AE050RXYDEG/EU<br>MIM-E03CN | AE080RXYDEG/EU<br>MIM-E03CN | AE120RXYDEG/EU<br>MIM-E03CN |
|---|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1] / A7/W55[2] | kW | 5.0/4.3 | 8.0/7.1 | 12.0/11.3 |
| | | | Cooling A35/W18[1] | kW | 5.0 | 7.5 | 12.0 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 1.03/1.52 | 1.77/2.53 | 2.65/3.73 |
| | | | Cooling A35/W18[1] | kW | 1.14 | 1.90 | 2.77 |
| | | COP (Nominal Heating) A7/W35[1] / A7/W55[2] | | W/W | 4.85/2.83 | 4.52/2.81 | 4.55/3.03 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4.39 | 3.95 | 4.33 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 175/ 125 | 175/ 126 | 185/ 138 |
| | | Seasonal space heating eff. class** LWT 35°C/ 55°C | | - | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| | | Current | MCA | A | 16.00 | 22.00 | 28.00 |
| | | | MFA | A | 20.00 | 27.50 | 35.00 |
| | | Leaving Water Temperature[2] | Heating | °C | 15~65 | 15~65 | 15~65 |
| | | | Cooling | °C | 5~25 | 5~25 | 5~25 |
| | Functions | Smart Grid Ready / PV Enabled | | - | • | • | • |
| | | 3-Step Quiet Mode | | - | • | • | • |
| | | 2-zone Control | | - | • | • | • |
| Outdoor Unit | Power Supply | | | Φ, V, Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz |
| | Compressor | Type | | - | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| | Base Heater | Capacity | | kW | - | 0.15 | 0.15 |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 45 | 48 | 50 |
| | | | Cooling Std | dB(A) | 45 | 48 | 50 |
| | | Sound Power | Heating Std | dB(A) | 61 | 63 | 64 |
| | Dimensions | Net Weight | | kg | 58.5 | 76.0 | 110.0 |
| | | Net Dimensions (WxHxD) | | mm | 880 x 798 x 310 | 940 x 998 x 330 | 940 x 1,420 x 330 |
| | Piping | Water Pipe | Inlet/ Outlet | Φ, mm | 25/ 25 | 25/ 25 | 25/ 25 |
| | Refrigerant | Type | | | R32 (Fluorinated greenhouse gas, GWP=675) | | |
| | | Factory Charging | | $tCO_2e$ | 0.68 | 0.78 | 1.49 |
| | | | | kg | 1.00 | 1.15 | 2.20 |
| | Operation | Ambient Temperature | Heating | °C | -25~35 | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 | -25~43 |

## Accessories

|  |  |  |  |  |
|---|---|---|---|---|
| Mono Control Kit | Touch Controller | DMS2.5 | Wi-Fi Kit | External Room Sensor |
| MIM-E03CN | MCM-A300N | MIM-D01AN | MIM-H04EN | MRW-TA |

|  |  |  |  |
|---|---|---|---|
| AE160RXYDEG/EU<br>MIM-E03CN | AE080RXYDGG/EU<br>MIM-E03CN | AE120RXYDGG/EU<br>MIM-E03CN | AE160RXYDGG/EU<br>MIM-E03CN |
| 16.0/15.0 | 8.0/7.1 | 12.0/11.3 | 16.0/15.0 |
| 14.0 | 7.5 | 12.0 | 14.0 |
| 3.62/5.18 | 1.77/2.53 | 2.65/3.73 | 3.62/5.18 |
| 3.28 | 1.90 | 2.77 | 3.28 |
| 4.42/2.90 | 4.52/2.81 | 4.53/3.03 | 4.42/2.90 |
| 4.27 | 3.95 | 4.33 | 4.27 |
| 176/ 138 | 175/ 126 | 185/ 138 | 176/ 138 |
| A+++ / A++ | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| 32.00 | 10.00 | 10.00 | 12.00 |
| 40.00 | 16.10 | 16.10 | 16.10 |
| 15~65 | 15~65 | 15~65 | 15~65 |
| 5~25 | 5~25 | 5~25 | 5~25 |
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |
| 1Φ, 220~240 V, 50 Hz | 3Φ, 380~415 V, 50 Hz | 3Φ, 380~415 V, 50 Hz | 3Φ, 380~415 V, 50 Hz |
| BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| 0.15 | 0.15 | 0.15 | 0.15 |
| 52 | 48 | 50 | 52 |
| 54 | 48 | 50 | 54 |
| 66 | 63 | 64 | 66 |
| 110.0 | 75.0 | 111.0 | 111.0 |
| 940 x 1,420 x 330 | 940 x 998 x 330 | 940 x 1,420 x 330 | 940 x 1,420 x 330 |
| 25/ 25 | 25/ 25 | 25/ 25 | 25/ 25 |
| R32 (Fluorinated greenhouse gas, GWP=675) | | | |
| 1.49 | 0.78 | 1.49 | 1.49 |
| 2.20 | 1.15 | 2.20 | 2.20 |
| -25~35 | -25~35 | -25~35 | -25~35 |
| 10~46 | 10~46 | 10~46 | 10~46 |
| -25~43 | -25~43 | -25~43 | -25~43 |

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[1] A2W Condition : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

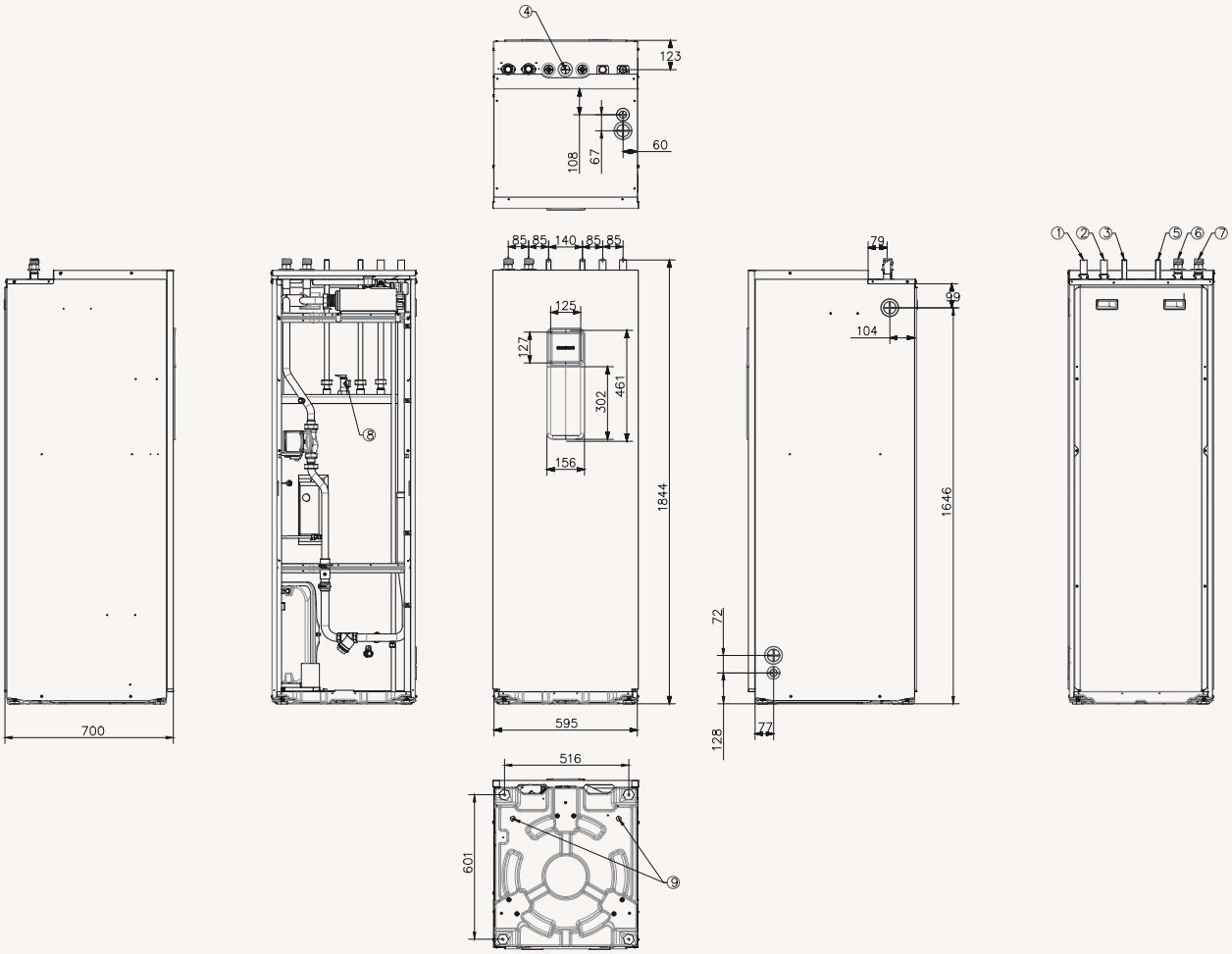
[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional Drawings

## Mono Tank Integrated Hydro Unit

AE200/260CNW**G/EU

Units: mm

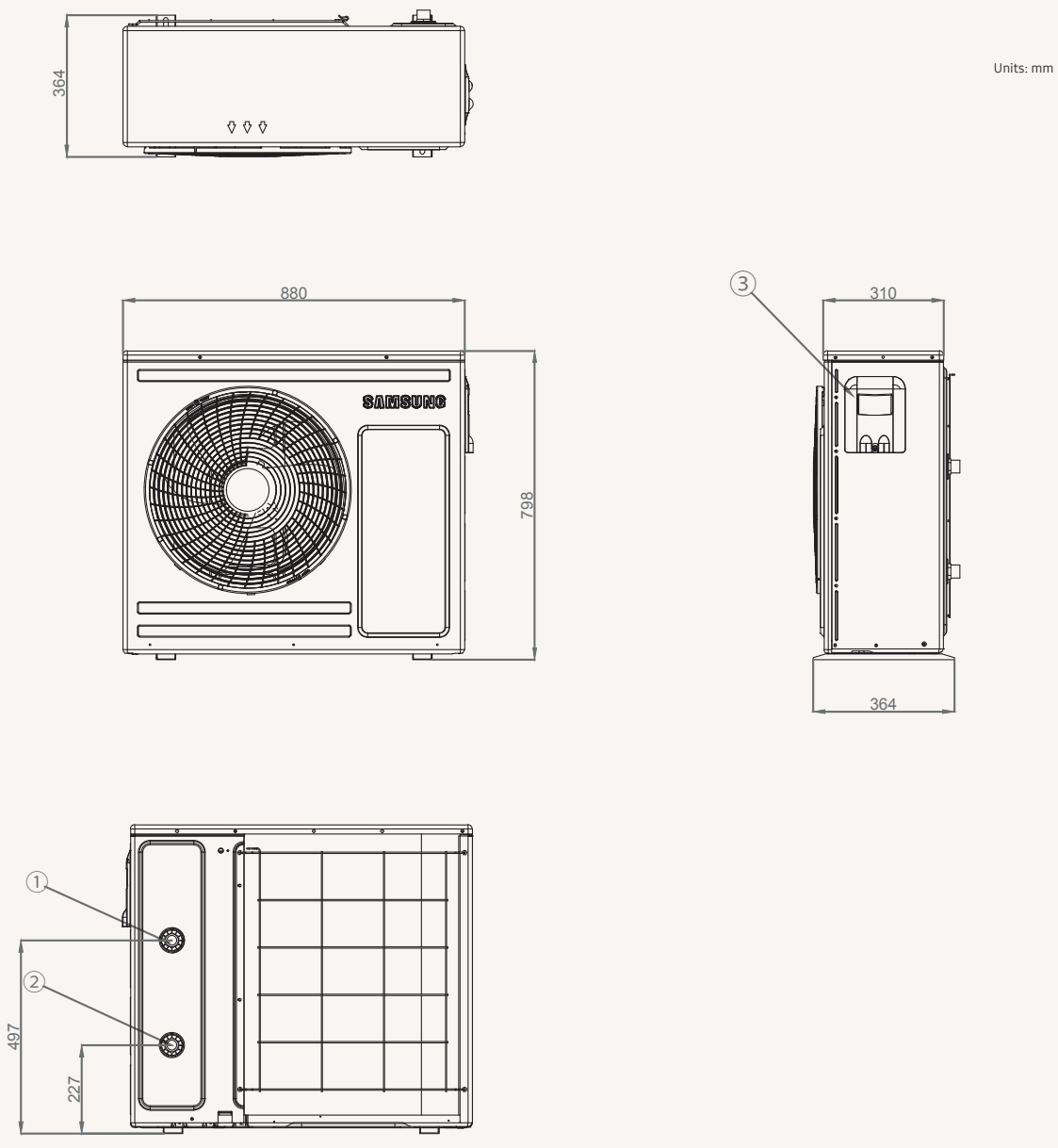



| NO | Name | Description | |
|---|---|---|---|
| | | AE200RNWMEG/EU | AE260RNWM*G/EU |
| 1 | Space heating Inlet | ø28 | ø28 |
| 2 | Space heating Outlet | ø28 | ø28 |
| 3 | DHW Inlet | ø22 | ø22 |
| 4 | Secondary water return | N/A | ø22 |
| 5 | DHW Outlet | ø22 | ø22 |
| 6 | Heat Pump In | ø28 | ø28 |
| 7 | Heat Pump Out | ø28 | ø28 |
| 8 | T/P v/v | Female PT1/2" | Female PT1/2" |
| 9 | Drain Holes | (Option) Connect with the provided drain plug | |

# Mono Outdoor

## AE050RXYDEG/EU

Units: mm



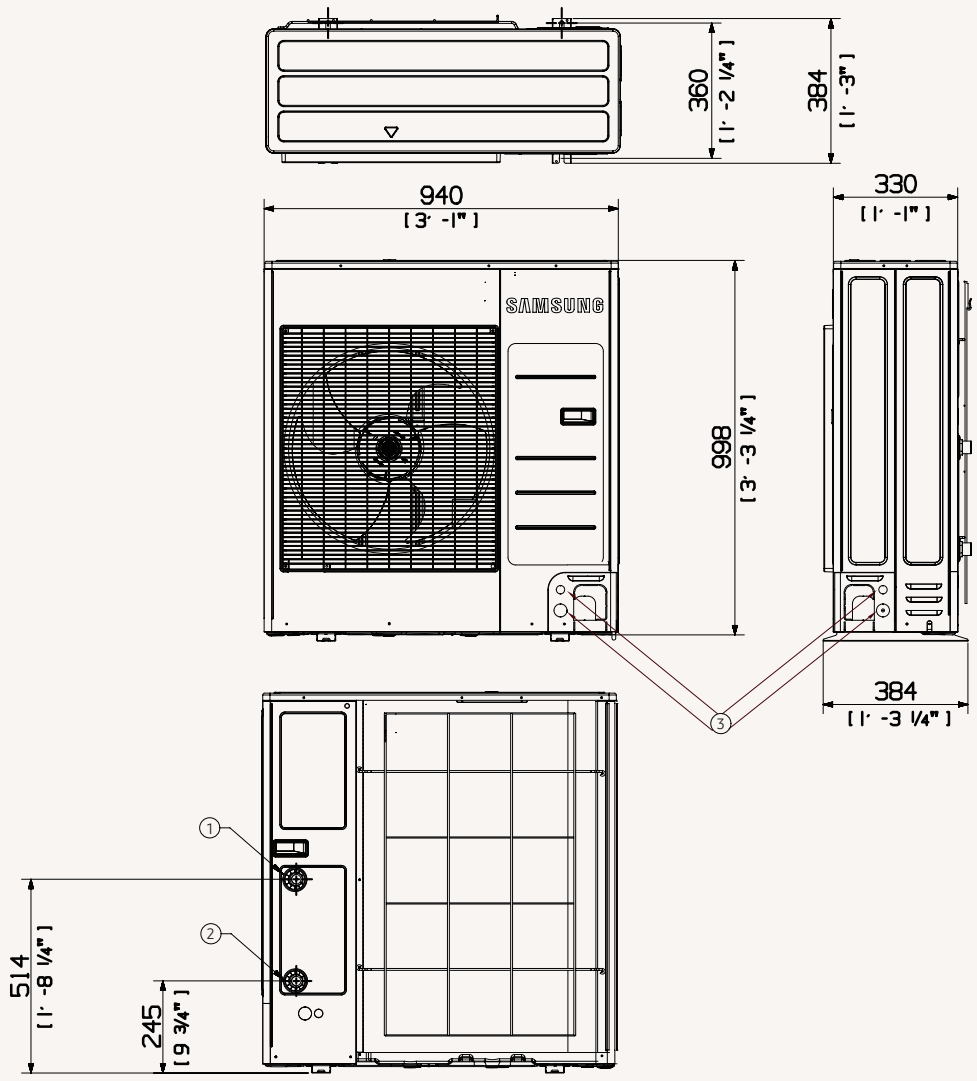

| NO | Name | Description |
|---|---|---|
| 1 | Water Pipe (Out) | BSPP male 1" |
| 2 | Water Pipe (In) | BSPP male 1" |
| 3 | Power & Communication Wiring Conduit Holes | |

# Dimensional Drawings

## Mono Outdoor

AE080RXYD*G/EU

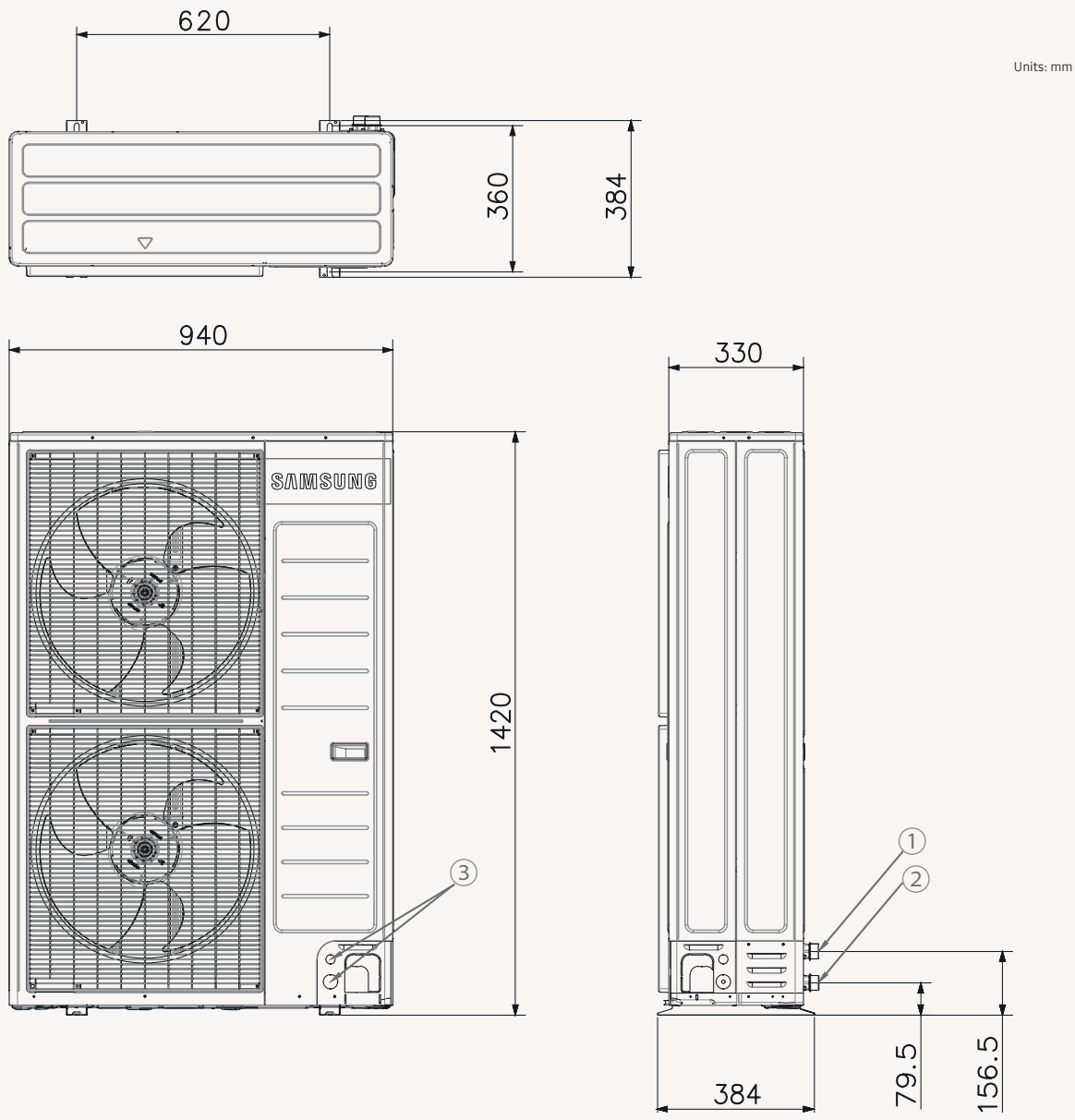
Units: mm [inches]




| NO | Name | Description |
|---|---|---|
| 1 | Water Pipe (Out) | BSPP male 1" |
| 2 | Water Pipe (In) | BSPP male 1" |
| 3 | Power & Communication Wiring Conduit Holes | |

# Mono Outdoor

AE120/160RXYD*G/EU




Units: mm

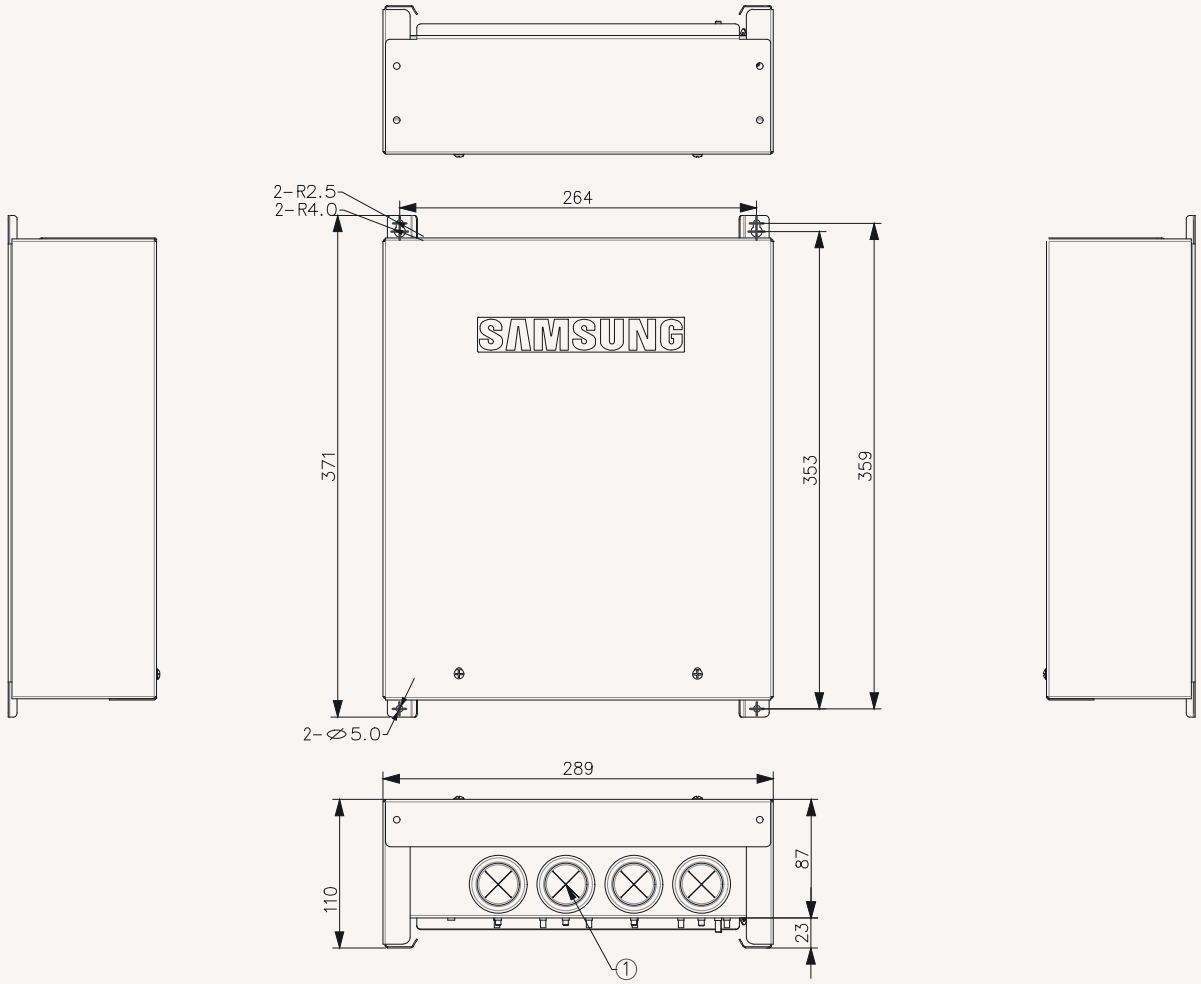
| NO | Name | Description |
|---|---|---|
| 1 | Water Pipe (Out) | BSPP male 1" |
| 2 | Water Pipe (In) | BSPP male 1" |
| 3 | Power & Communication Wiring Conduit Holes | |

# Dimensional Drawings

## Mono Control Kit

MIM-E03CN

Units: mm




| NO | Name |
|---|---|
| 1 | Conduit Holes for Wiring (Rubber) |

Project: Casa L (Spain)
Project Architecture: ÁBATON
Interior Design: BATAVIA
Photography: Carlos Muntadas

# Split

Project: Casa L (Spain)
Project Architecture: ÁBATON
Interior Design: BATAVIA
Photography: Carlos Muntadas

# Specifications

## ClimateHub Split R32

- Integrated solution for heating and domestic hot water.
- 4-step quiet operation mode (down to 35 db(A)*).
- Compact unit size with large water tank (200 L & 260 L).
- Backup heater is included to ensure a minimum water temperature.




| | Indoor Unit<br>Outdoor Unit<br>Controller | | | | AE200RNWSEG/EU<br>AE040RXEDEG/EU<br>MWR-WW10N | AE200RNWSEG/EU<br>AE060RXEDEG/EU<br>MWR-WW10N | AE200RNWSEG/EU<br>AE090RXEDEG/EU<br>MWR-WW10N |
|---|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1] / A7/W55[2] | kW | 4.4/3.9 | 6.0/5.2 | 9.0/8.0 |
| | | | Cooling A35/W18[1] | kW | 5.0 | 6.5 | 8.7 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 0.85/1.32 | 1.22/1.81 | 1.87/2.73 |
| | | | Cooling A35/W18[1] | kW | 1.09 | 1.47 | 2.11 |
| | | COP (Nominal Heating) A7/W35[1] / A7/W55[2] | | W/W | 5.20/2.95 | 4.92/2.87 | 4.81/2.93 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4.59 | 4.42 | 4.12 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 4.58/3.25 | 4.58/3.31 | 4.45/3.24 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 180/ 127 | 180/ 129 | 175/ 127 |
| | | Average Seasonal space heating eff. class ** LWT 35°C/ 55°C | | - | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| | | Current | MCA | A | 16.00 | 16.00 | 22.00 |
| | | | MFA | A | 20.00 | 20.00 | 27.50 |
| | | Leaving Water Temperature[3] | Heating | °C | 15~65 | 15~65 | 15~65 |
| | | | Cooling | °C | 5~25 | 5~25 | 5~25 |
| | Functions | Smart Grid Ready / PV Enabled | | - | • | • | • |
| | | 4-Step Quiet Mode | | - | • | • | • |
| | | 2-zone Control | | - | • | • | • |
| Tank Integrated Hydro Unit | 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 |
| | Water Tank Volume | | | litres | 200 | 200 | 200 |
| | Declared Load Profile | | | L/XL | L | L | L |
| | Average water heating efficiency ηwh | | | ETA% | 120 | 120 | 119 |
| | Average Energy Efficiency Class | | | | A+ | A+ | A+ |
| | Heater | Back-up heater Capacity | Default (Option) | kW | 2 (4/6) | 2 (4/6) | 2 (4/6) |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 26 | 26 | 26 |
| | | | Cooling Std | dB(A) | 26 | 26 | 26 |
| | | Sound Power | Heating Std | dB(A) | 40 | 40 | 40 |
| | Piping | Water pipe (Space Heating) | Inlet/Outlet | Φ, mm | 28/28 | 28/28 | 28/28 |
| | | Water pipe (DHW) | Inlet/Outlet | Φ, mm | 22/22 | 22/22 | 22/22 |
| | Dimensions | Net Weight | | kg | 136 | 136 | 136 |
| | | Net Dimensions (WxHxD) | | mm | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| Outdoor Unit | Power Supply | | | Φ, V, Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz |
| | Compressor | Type | | - | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| | Base Heater | Capacity | | kW | - | - | 0.15 |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 44 | 47 | 49 |
| | | | Cooling Std | dB(A) | 46 | 47 | 49 |
| | | | Night Mode | dB(A) | <35 | 35 | 35 |
| | | Sound Power | Heating Std | dB(A) | 58 | 60 | 64 |
| | Dimensions | Net Weight | | kg | 46.5 | 46.5 | 73.0 |
| | | Net Dimensions (WxHxD) | | mm | 880 x 638 x 310 | 880 x 638 x 310 | 940 x 998 x 330 |
| | | Refrigerant | Type | - | R32 (Fluorinated greenhouse gas, GWP=675) | | |
| | | Factory Charging | | $tCO_2e$ | 0.81 | 0.81 | 0.95 |
| | | | | kg | 1.2 | 1.2 | 1.4 |
| | Piping | Piping Connections | Liquid Pipe | Φ, mm (inch) | 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") |
| | | | Gas Pipe | Φ, mm (inch) | 15.88 (5/8") | 15.88 (5/8") | 15.88 (5/8") |
| | | Piping length (ODU-IDU)[5] | Max.[Equiv.] | m | 30.00 | 30.00 | 35.00 |
| | | Level difference (IDU-IDU)[5] | Max. | m | 20.00 | 20.00 | 20.00 |
| | Operation | Ambient Temperature | Heating | °C | -25~35 | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 | -25~43 |

## Accessories

| Touch Controller |
|---|
| MWR-WW10*N |

| Touch Controller |
|---|
| MCM-A300N |

| DMS2.5 |
|---|
| MIM-D01AN |



| Wi-Fi Kit |
|---|
| MIM-H04EN |

| External Room Sensor |
|---|
| MRW-TA |

| Backup Heater (4/6kW) |
|---|
| MHC-*00FE |

| AE260RNWSEG/EU<br>AE040RXEDEG/EU<br>MWR-WW10N | AE260RNWSEG/EU<br>AE060RXEDEG/EU<br>MWR-WW10N | AE260RNWSEG/EU<br>AE090RXEDEG/EU<br>MWR-WW10N | AE260RNWSGG/EU<br>AE090RXEDGG/EU<br>MWR-WW10N |
|---|---|---|---|
| 4.4/3.9 | 6.0/5.2 | 9.0/8.0 | 9.0/8.0 |
| 5.0 | 6.5 | 8.7 | 8.7 |
| 0.85/1.32 | 1.22/1.81 | 1.87/2.73 | 1.87/2.73 |
| 1.09 | 1.47 | 2.11 | 2.11 |
| 5.20/2.95 | 4.92/2.87 | 4.81/2.93 | 4.81/2.93 |
| 4.59 | 4.42 | 4.12 | 4.12 |
| 4.58/3.25 | 4.58/3.31 | 4.45/3.24 | 4.45/3.24 |
| 180/127 | 180/129 | 175/127 | 175/127 |
| A+++ / A++ | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| 16.00 | 16.00 | 22.00 | 10.00 |
| 20.00 | 20.00 | 27.50 | 16.10 |
| 15~65 | 15~65 | 15~65 | 15~65 |
| 5~25 | 5~25 | 5~25 | 5~25 |
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |
| 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz |
| 260 | 260 | 260 | 260 |
| XL | XL | XL | XL |
| 123 | 123 | 123 | 123 |
| A+ | A+ | A+ | A+ |
| 2 (4/6) | 2 (4/6) | 2 (4/6) | 6 |
| 26 | 26 | 26 | 26 |
| 26 | 26 | 26 | 26 |
| 40 | 40 | 40 | 40 |
| 28/28 | 28/28 | 28/28 | 28/28 |
| 22/22 | 22/22 | 22/22 | 22/22 |
| 146.0 | 146.0 | 146.0 | 146.0 |
| 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz | 1Φ, 220~240 V, 50 Hz | 3Φ, 380~415 V, 50 Hz |
| BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| - | - | 0.15 | 0.15 |
| 44 | 47 | 49 | 49 |
| 46 | 47 | 49 | 49 |
| <35 | 35 | 35 | 35 |
| 58 | 60 | 64 | 64 |
| 46.5 | 46.5 | 73.0 | 72.0 |
| 880 x 638 x 310 | 880 x 638 x 310 | 940 x 998 x 330 | 940 x 998 x 330 |
| R32 (Fluorinated greenhouse gas, GWP=675) | | | |
| 0.81 | 0.81 | 0.95 | 0.95 |
| 1.2 | 1.2 | 1.4 | 1.4 |
| 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") |
| 15.88 (5/8") | 15.88 (5/8") | 15.88 (5/8") | 15.88 (5/8") |
| 30.00 | 30.00 | 35.00 | 35.00 |
| 20.00 | 20.00 | 20.00 | 20.00 |
| -25~35 | -25~35 | -25~35 | -25~35 |
| 10~46 | 10~46 | 10~46 | 10~46 |
| -25~43 | -25~43 | -25~43 | -25~43 |

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*35dB(A) is only applicable for 6kW and 9kW outdoor units down to +4°C stated in 3 m distance in an anechoic environment.

**A+++ energy label is available according to EU No. 811/2013 label classification 2019, on a scale from D to A+++

[1] A2W Condition : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

[5] ODU : Outdoor Unit, IDU : Indoor Unit

# Specifications

## Split with Third Party DHW Tank R32

- Connectable with R32 Split Outdoor Unit in combination of third party Tank.
- Compatible with thermostats, solar panels and back-up boilers.
- Intuitive, colour screen touch controller in multiple languages.
- Energy monitoring through touch controller.
- PV and Smart Grid ready.
- 2-zone Control, suitable for floor heating and radiators.
- SmartThings compatible with optional Wi-Fi kit.
- Backup heater is included to ensure a minimum water temperature.






| | Indoor Unit<br>Outdoor Unit | | | | AE090RNYDEG/EU<br>AE040RXEDEG/EU | AE090RNYDEG/EU<br>AE060RXEDEG/EU | AE090RNYDEG/EU<br>AE090RXEDEG/EU |
|---|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1] / A7/W55[2] | kW | 4.4/3.9 | 6.0/5.2 | 9.0/8.0 |
| | | | Cooling A35/W18[1] | kW | 5.0 | 6.5 | 8.7 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 0.85/1.32 | 1.22/1.81 | 1.87/2.73 |
| | | | Cooling A35/W18[1] | kW | 1.09 | 1.47 | 2.11 |
| | | COP (Nominal Heating) A7/W35[1] | | W/W | 5.20/2.95 | 4.92/2.87 | 4.81/2.93 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4.59 | 4.42 | 4.12 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 180/127 | 180/129 | 175/127 |
| | | Seasonal Space Heating Eff. Class LWT 35°C/ 55°C | | - | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| | | Current | MCA | A | 16.00 | 16.00 | 22.00 |
| | | | MFA | A | 20.00 | 20.00 | 27.50 |
| | | Leaving Water Temperature[2] | Heating | °C | 15~65 | 15~65 | 15~65 |
| | | | Cooling | °C | 5~25 | 5~25 | 5~25 |
| | Functions | Smart Grid Ready / PV Enabled | | - | • | • | • |
| | | 4-Step Quiet Mode | | - | • | • | • |
| | | 2-zone Control | | - | • | • | • |
| Wall-Mounted Hydro Unit | 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 |
| | Heater | Back-up heater Capacity | Default (Option) | kW | 4 | 4 | 4 |
| | Sound | Sound Pressure[3] | Heating Std | dB(A) | 26 | 26 | 26 |
| | | | Cooling Std | dB(A) | 26 | 26 | 26 |
| | | Sound Power | Heating Std | dB(A) | 40 | 40 | 40 |
| | Dimensions | Net Weight | | kg | 45,0 | 45,0 | 45,0 |
| | | Net Dimensions (WxHxD) | | mm | 510 x 850 x 315 | 510 x 850 x 315 | 510 x 850 x 315 |
| | Piping | Water pipe | Inlet/Outlet | Φ, inch | 1+1/4" | 1+1/4" | 1+1/4" |
| Outdoor unit | Compressor | Type | | - | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| | Base Heater | Capacity | | kW | - | - | 0.15 |
| | Sound | Sound Pressure[3] | Heating Std | dB(A) | 44 | 47 | 49 |
| | | | Cooling Std | dB(A) | 46 | 47 | 49 |
| | | Sound Power | Heating Std | dB(A) | 58 | 60 | 64 |
| | Dimensions | Net Weight | | kg | 46.5 | 46.5 | 73.0 |
| | | Net Dimensions (WxHxD) | | mm | 880 x 638 x 310 | 880 x 638 x 310 | 940 x 998 x 330 |
| | Refrigerant | Type | | | R32 (Fluorinated greenhouse gas, GWP=675) | | |
| | | Factory Charging | | $tCO_2e$ | 0.81 | 0.81 | 0.95 |
| | | | | kg | 1.2 | 1.2 | 1.4 |
| | Piping | Piping Connections | Liquid Pipe | Φ, mm (inch) | 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") |
| | | | Gas Pipe | Φ, mm (inch) | 15.88 (5/8") | 15.88 (5/8") | 15.88 (5/8") |
| | | Piping length (ODU-IDU)[4] | Max.[Equiv.] | m | 30 | 30 | 35 |
| | | Level difference (IDU-IDU)[4] | Max. | m | 20 | 20 | 20 |
| | | Chargeless Length | | Φ, mm | 15 | 15 | 15 |
| | Operation | Ambient Temperature | Heating | °C | -25~35 | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 | -25~43 |

## Accessories

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| Touch Controller (included) | Touch Controller | DMS2.5 | Wi-Fi Kit | External Room Sensor |
| MWR-WW10N | MCM-A300N | MIM-D01AN | MIM-H04EN | MRW-TA |

| AE090RNYDGG/EU<br>AE090RXEDGG/EU |
|---|
| 9.0/8.0 |
| 8.7 |
| 1.87/2.73 |
| 2.11 |
| 4.81/2.93 |
| 4.12 |
| 175/127 |
| A+++ / A++ |
| 10.00 |
| 16.10 |
| 15~65 |
| 5~25 |
| • |
| • |
| • |
| 3Φ, 2, 380~415 V, 50 Hz |
| 6 |
| 26 |
| 26 |
| 40 |
| 46.5 |
| 510 x 850 x 315 |
| 1+1/4" |
| BLDC Twin Rotary |
| 0.15 |
| 49 |
| 49 |
| 64 |
| 72.0 |
| 940 x 998 x 330 |
| R32 (Fluorinated greenhouse gas, GWP=675) |
| 0.95 |
| 1.4 |
| 6.35 (1/4") |
| 15.88 (5/8") |
| 35 |
| 20 |
| 15 |
| -25~35 |
| 10~46 |
| -25~43 |

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**A+++ energy label is available according to EU No. 811/2013 label classification 2019, on a scale from D to A+++

[1] A2W Condition: (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition: (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 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.

[4] ODU: Outdoor Unit, IDU: Indoor Unit

# Specifications

## Split with Third Party DHW Tank (R410A)

- Connectable with R410A Split Outdoor Unit in combination with a third party Tank.
- Compatible with room thermostats, solar pumps, 2- or 3-way valves and back-up boilers.






| | Indoor Unit / Outdoor Unit | | | | AE160ANYDEH/EU<br>AE120AXEDEH/EU | AE160ANYDGH/EU<br>AE120AXEDGH/EU | AE160ANYDEH/EU<br>AE160AXEDEH/EU |
|---|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1]/ A7/W55[2] | kW | 12.00/ 11.00 | 12.00/ 11.00 | 16.00/ 14.60 |
| | | | Cooling A35/W18[1] | kW | 12.00 | 12.00 | 15.00 |
| | | Power Input (Nominal) | Heating A7/W35 | kW | 2.59 | 2.59 | 3.76 |
| | | | Cooling A35/W18[1] | kW | 3.10 | 3.10 | 4.14 |
| | | COP (Nominal Heating) A7/W35[1] / A7/W55[2] | | W/W | 4.63/ 2.89 | 4.63/ 2.89 | 4.26/ 2.74 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 3.87 | 3.87 | 3.62 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 4.59/ 3.12 | 4.59/ 3.12 | 4.46/ 3.09 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 181/ 122 | 181/ 122 | 175/ 121 |
| | | Seasonal Space Heating Eff. Class LWT 35°C/ 55°C | | - | A+++ / A+ | A+++ / A+ | A+++ / A+ |
| | | Water flow rate | Low 35°C temp | l/min | 35.0 | 35.0 | 46.0 |
| | | Current | MCA | A | 28 | 10 | 32 |
| | | | MFA | A | 35.0 | 16.1 | 40.0 |
| | | Leaving Water Temperature | Heating | °C | 15~55 | 15~55 | 15~55 |
| | | | Cooling | °C | 5~25 | 5~25 | 5~25 |
| | Functions | Smart Grid Ready/PV Enabled | | - | • | • | • |
| | | 3-Step Quiet Mode | | - | • | • | • |
| | | 2-zone Control | | - | • | • | • |
| Wall-Mounted Hydro Unit | Power Supply | | | Φ, #, V, Hz | 1Φ, 2, 220~240 V, 50 Hz | 3Φ, 2, 380~415 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz |
| | Heater | Capacity | | kW | 6 | 6 | 6 |
| | Sound | Sound Pressure[3] | Heating Std | dB(A) | 30 | 30 | 30 |
| | | | Cooling Std | dB(A) | 30 | 30 | 30 |
| | | Sound Power | Heating Std | dB(A) | 44 | 44 | 44 |
| | Piping | Water pipe | Inlet/Outlet | Φ, inch | 1+1/4" | 1+1/4" | 1+1/4" |
| | Dimensions | Net Weight | | kg | 45.0 | 46.5 | 45.0 |
| | | Net Dimensions (WxHxD) | | mm | 510 x 850 x 315 | 510 x 850 x 315 | 510 x 850 x 315 |
| Outdoor unit | Compressor | Type | | - | BLDC Twin Rotary | BLDC Twin Rotary | BLDC Twin Rotary |
| | Base Heater | Capacity | | kW | 0.15 | 0.15 | 0.15 |
| | Sound | Sound Pressure[3] | Heating Std | dB(A) | 50 | 50 | 52 |
| | | | Cooling Std | dB(A) | 50 | 50 | 54 |
| | | Sound Power | Heating Std | dB(A) | 64 | 64 | 66 |
| | Dimensions | Net Weight | | kg | 100.5 | 109.0 | 100.5 |
| | | Net Dimensions (WxHxD) | | mm | 940 x 1,420 x 330 | 940 x 1,420 x 330 | 940 x 1,420 x 330 |
| | Refrigerant | Type | | | R410A (Fluorinated greenhouse gas, GWP=2,088) | | |
| | | Factory Charging | | $tCO_2e$ | 6.22 | 6.22 | 6.22 |
| | | | | kg | 2.98 | 2.98 | 2.98 |
| | Piping | Piping Connections | Liquid Pipe | Φ, mm (inch) | 9.52 (3/8") | 9.52 (3/8") | 9.52 (3/8") |
| | | | Gas Pipe | Φ, mm (inch) | 15.88 (5/8") | 15.88 (5/8") | 15.88 (5/8") |
| | | Piping length (ODU-IDU)[4] | Max.[Equiv.] | m | 50 | 50 | 50 |
| | | Level difference (IDU-IDU)[4] | Max. | m | 30 | 30 | 30 |
| | | Chargeless Length | | Φ, mm | 15 | 15 | 15 |
| | Operation | Ambient Temperature | Heating | °C | -25~35 | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 | -25~43 |

## Accessories



| Touch Controller (included) | Touch Controller | DMS2.5 | Wi-Fi Kit | External Room Sensor |
|---|---|---|---|---|
| MWR-WW10N | MCM-A300N | MIM-D01AN | MIM-H04EN | MRW-TA |

| AE160ANYDGH/EU<br>AE160AXEDGH/EU |
|---|
| 16.00/ 14.60 |
| 15.00 |
| 3.76 |
| 4.14 |
| 4.26/ 2.74 |
| 3.62 |
| 4.46/ 3.09 |
| 175/ 121 |
| A+++ / A+ |
| 46.0 |
| 12 |
| 16.1 |
| 15~55 |
| 5~25 |
| • |
| • |
| • |
| 3Φ, 2, 380~415 V, 50 Hz |
| 6 |
| 30 |
| 30 |
| 44 |
| 1+1/4" |
| 46.5 |
| 510 x 850 x 315 |
| BLDC Twin Rotary |
| 0.15 |
| 52 |
| 54 |
| 66 |
| 109.0 |
| 940 x 1,420 x 330 |
| R410A (Fluorinated greenhouse gas, GWP=2,088) |
| 6.22 |
| 2.98 |
| 9.52 (3/8") |
| 15.88 (5/8") |
| 50 |
| 30 |
| 15 |
| -25~35 |
| 10~46 |
| -25~43 |

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[1] A2W Condition : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

2 A2W Condition : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

3 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.

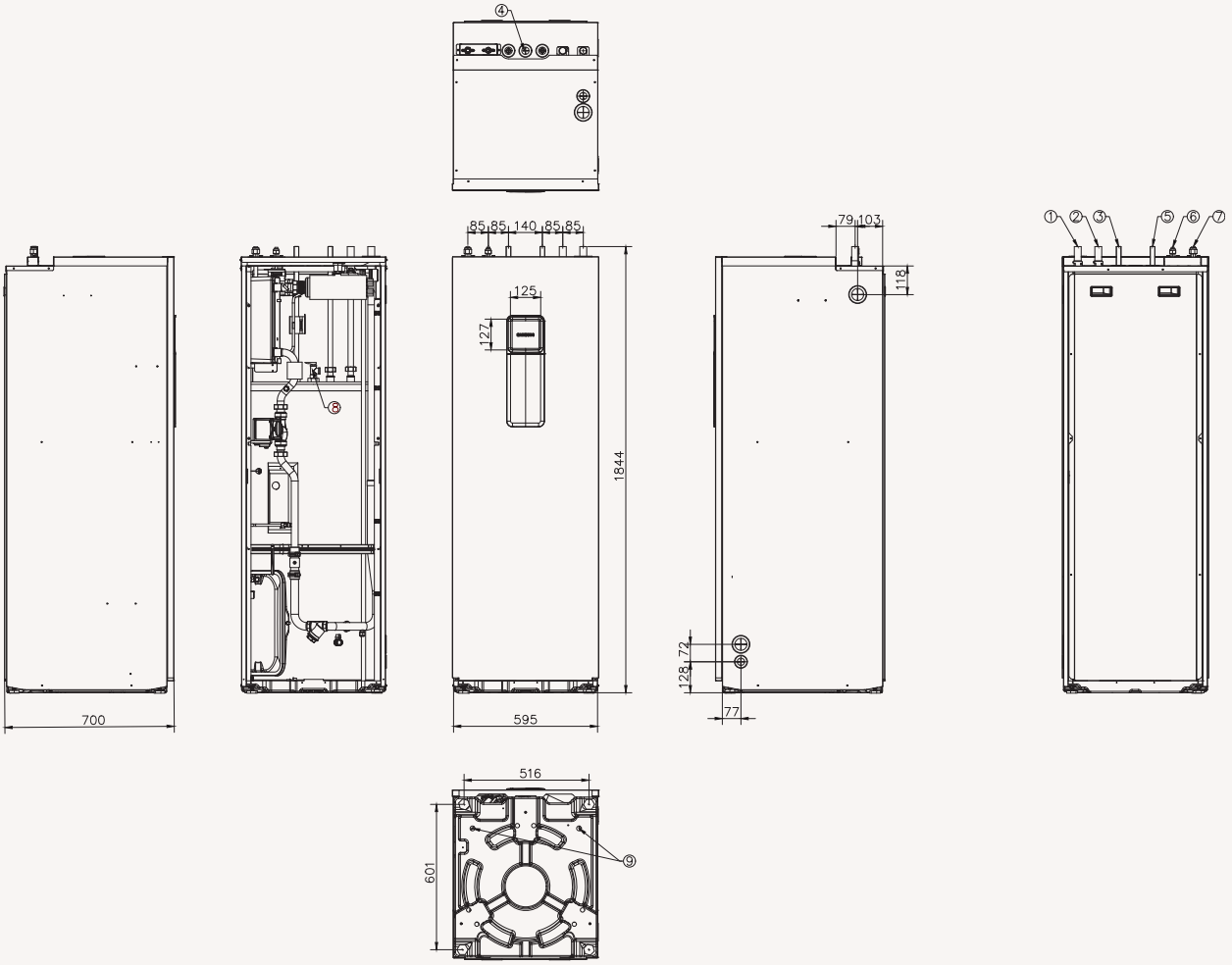
4 ODU: Outdoor Unit, IDU: Indoor Unit

# Dimensional Drawings

## Split Tank Integrated Hydro Unit

AE200/260RNW**G/EU

Units: mm

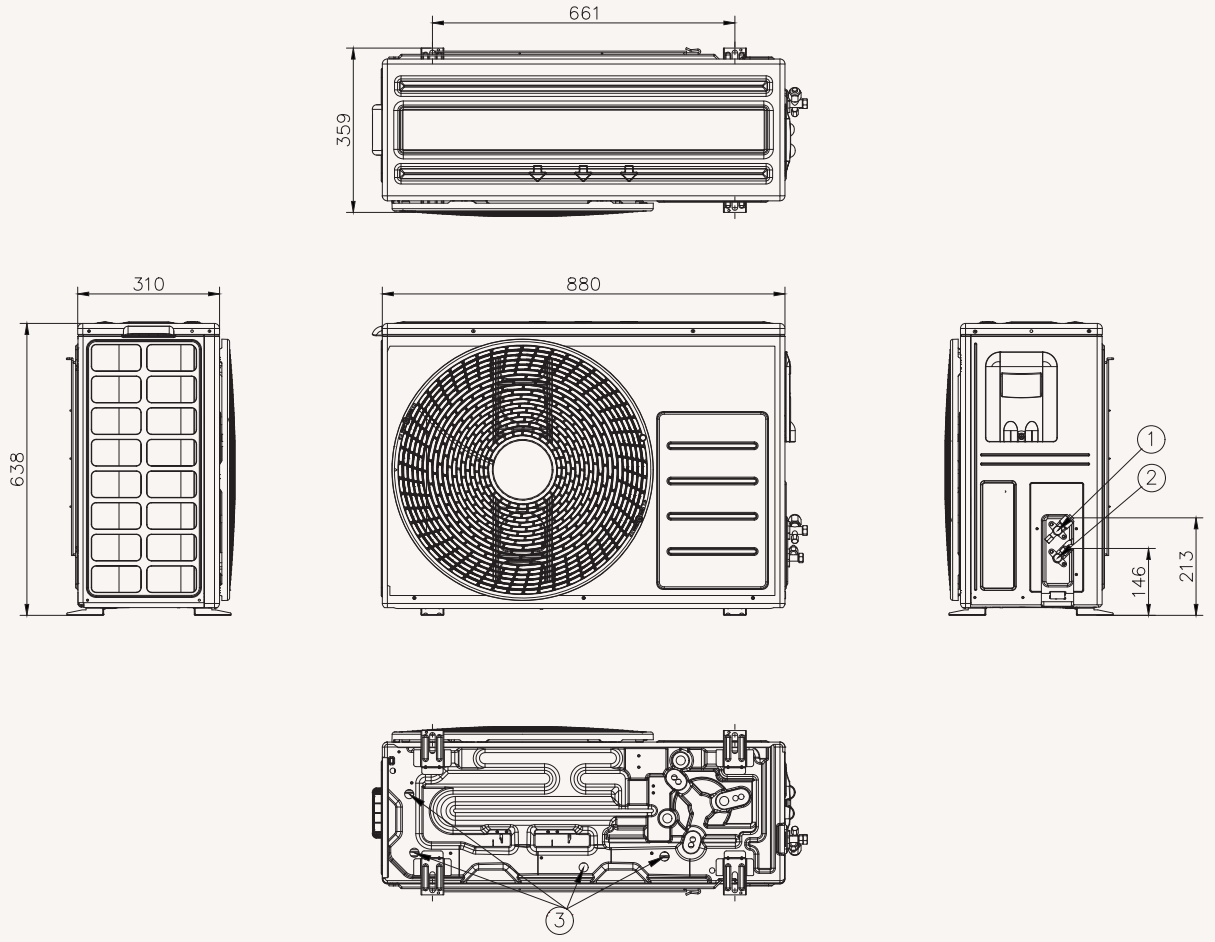



| NO | Name | Description | |
|---|---|---|---|
| | | AE200RNWSEG/EU | AE260RNWS*G/EU |
| 1 | Space heating Inlet | Ø28 | Ø28 |
| 2 | Space heating Outlet | Ø28 | Ø28 |
| 3 | DHW Inlet | Ø22 | Ø22 |
| 4 | Secondary water return | N/A | Ø22 |
| 5 | DHW Outlet | Ø22 | Ø22 |
| 6 | Refrigerant liquid pipe | Ø6.35 | Ø6.35 |
| 7 | Refrigerant gas pipe | Ø15.88 | Ø15.88 |
| 8 | T/P v/v | Female PT1/2" | Female PT1/2" |
| 9 | Drain Holes | (Option) Connect with the provided drain plug | |

# Split Outdoor

## AE040/060RXEDEG/EU

Units: mm



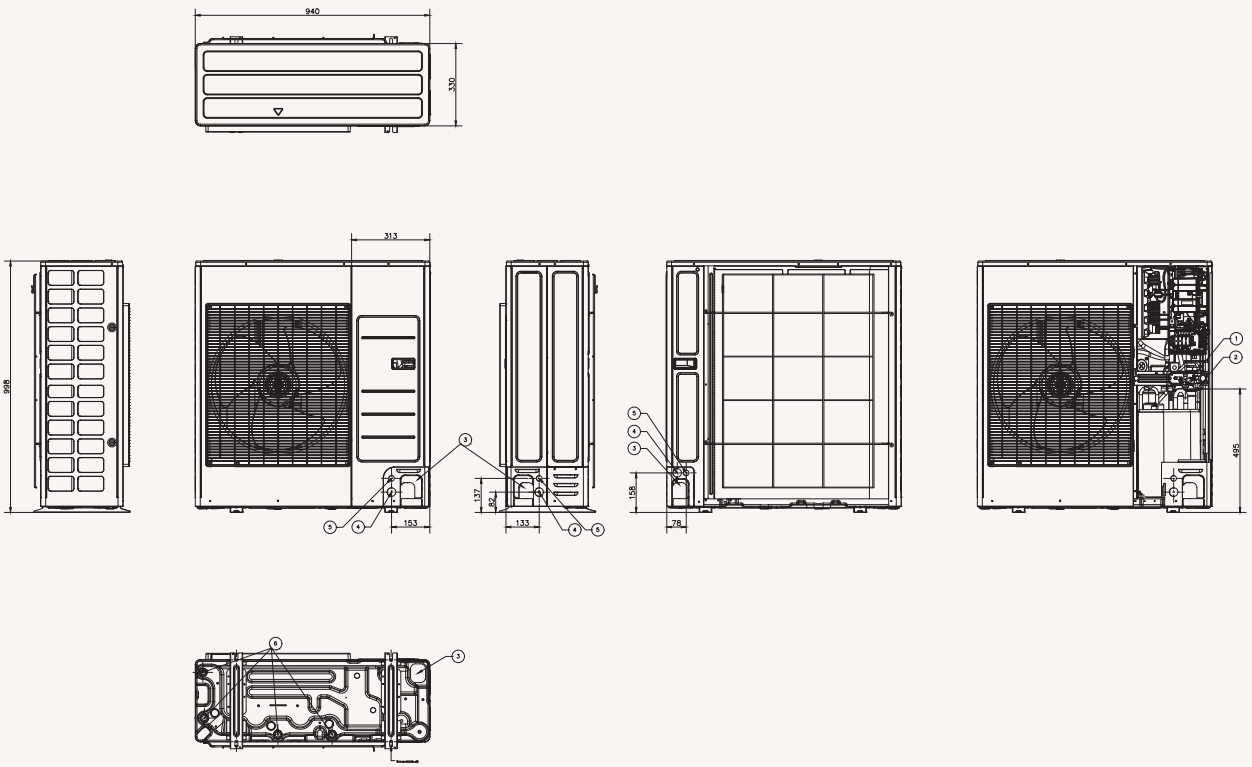

| NO | Name | Description |
|---|---|---|
| 1 | Refrigerant liquid pipe | Φ6.35 (1/4") |
| 2 | Refrigerant gas pipe | Φ15.88 (5/8") |
| 3 | Drain holes | Connect with the provided drain plug. |

# Dimensional Drawings

## Split Outdoor

AE090RXED*G/EU

Units: mm

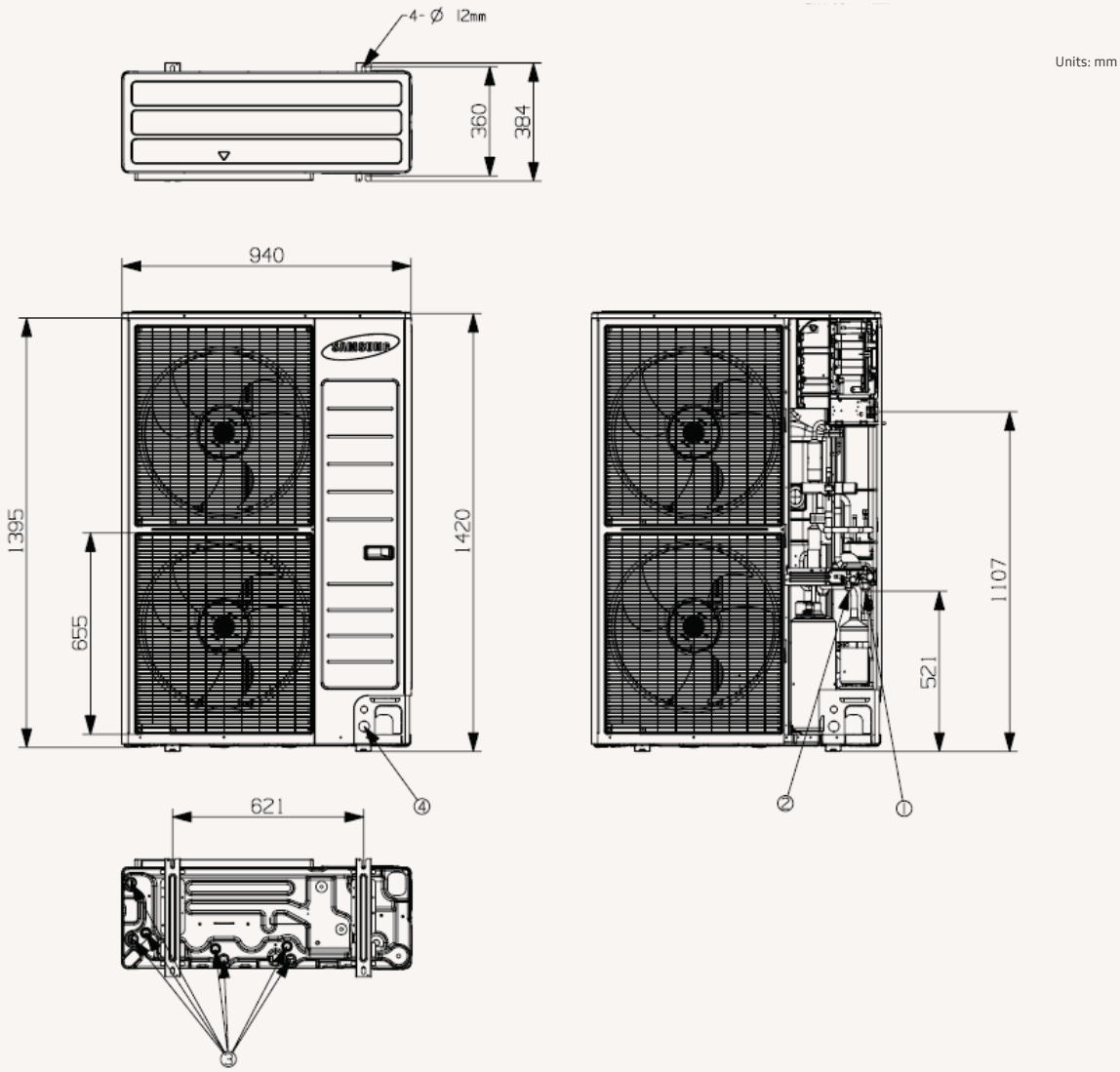



| NO | Name | Description |
|---|---|---|
| 1 | Refrigerant gas pipe | Φ6.35 (1/4") |
| 2 | Refrigerant liquid pipe | Φ15.88 (5/8") |
| 3 | Piping intake knockout hole | Front / Side / Rear / Bottom |
| 4 | Power wiring conduit | Front / Side / Rear , Φ34 [1-3/8"] |
| 5 | Communication wiring conduit | Front / Side / Rear , Φ22 [7/8"] |
| 6 | Drain Hole | Connect with the provided drain plug |

# Split Outdoor

AE120/160AXED*H/EU

Units: mm

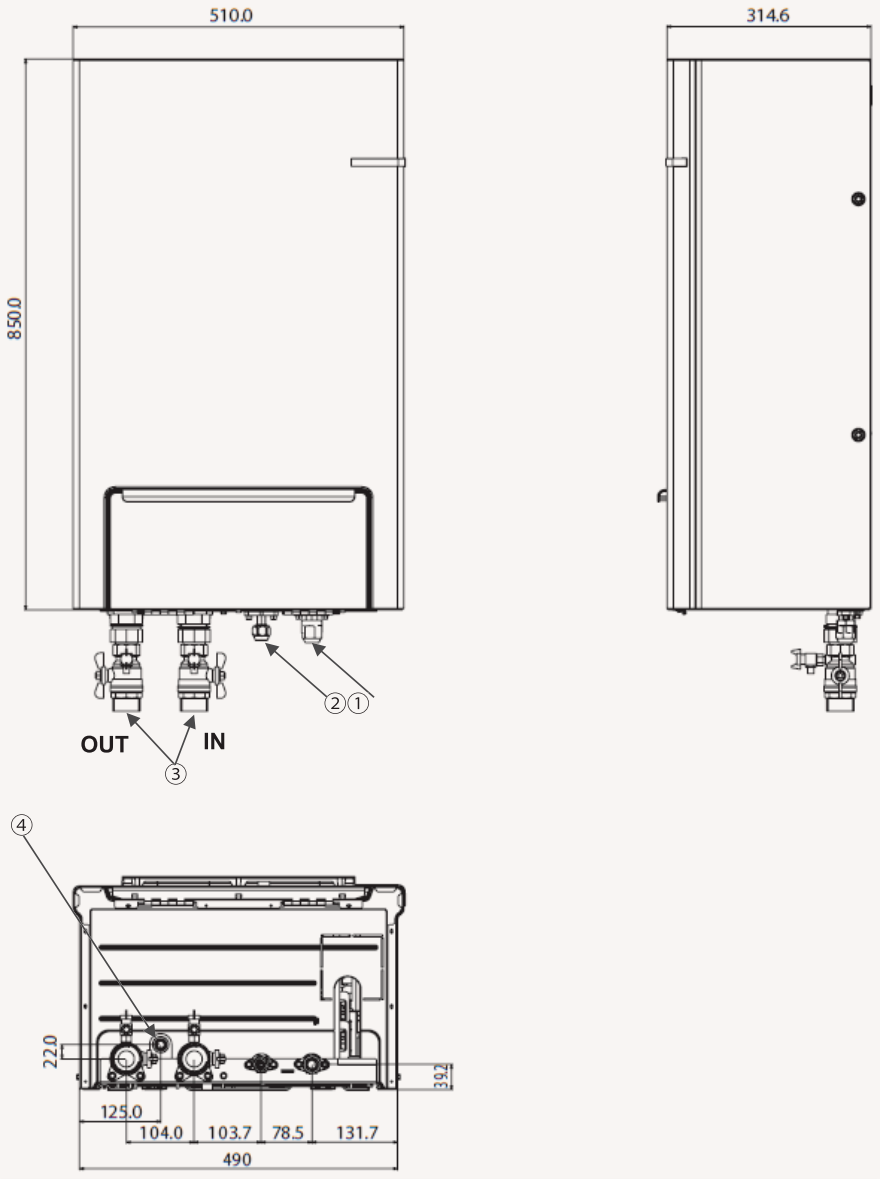



| NO | Name | Description |
|---|---|---|
| 1 | Refrigerant gas pipe | ϕ15.88 |
| 2 | Refrigerant liquid pipe | ϕ9.52 |
| 3 | Drain Hole | Connect with the provided drain plug |
| 4 | Power wiring conduit | N/A |

# Dimensional Drawings

## Split Wall-Mounted Hydro Unit

AE160ANYD*H/EU




Units: mm

| NO | Name | Description |
|---|---|---|
| 1 | Refrigerant gas pipe | Ø15.88 |
| 2 | Refrigerant liquid pipe | Ø9.52 |
| 3 | Water pipe inlet/outlet | - |
| 4 | Drain Hose Connector | - |

Project: Atico en el Retiro (Spain)
Project Architecture: ÁBATON
Interior Design: BATAVIA
Photography: Belén Imaz

# TDM Plus

# Specifications

## ClimateHub TDM Plus (R410A)

- 'All in one' Air-to-Water and Air-to-Air system.
- PV and Smart Grid ready.
- Compact unit size with large water tank (200L & 260L).
- 2-zone control, suitable for floor heating and radiators.
- Intuitive, colour screen touch controller in multiple languages.
- SCOP rating of A+++**.
- Energy monitoring through touch controller.
- SmartThings compatible with optional Wi-Fi kit.
- Smooth servicing through the front-mounted service window.
- Backup heater is included to ensure a minimum water temperature.



| | Indoor Unit<br>Outdoor Unit<br>Controller | | | | AE200TNWTEH/EU<br>AE044MXTPEH/EU<br>MWR-WW10N | AE200TNWTEH/EU<br>AE066MXTPEH/EU<br>MWR-WW10N |
|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1] / A7/W55[2] | kW | 4.4/ 3.8 | 6.6/ 4.8 |
| | | | Cooling A35/W18[1] | kW | 5.1 | 6.7 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 0.93/ 1.37 | 1.47/ 1.85 |
| | | | Cooling A35/W18[1] | kW | 1.03 | 1.48 |
| | | COP (Nominal Heating) A7/W35[1] / A7/W55[2] | | W/W | 4.73/ 2.80 | 4.49/ 2.59 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4.95 | 4.53 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 4.41/ 2.83 | 4.41/ 2.96 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 173/ 110 | 173/ 115 |
| | | Average Seasonal space heating eff. class ** LWT 35°C/ 55°C | | - | A++ / A+ | A++ / A+ |
| | | Current | MCA | A | 18.00 | 20.00 |
| | | | MFA | A | 25.00 | 25.00 |
| | | Maximum allowable IDU[5] connections (Hydro A2W unit not included) | Max. number of IDU[5] | EA | 2 | 3 |
| | | | Total capacity Min. (Cooling) | kW | 2.20 | 3.30 |
| | | | Total capacity Min. (Cooling) | kW | 4.40 | 6.60 |
| | | Leaving Water Temperature[3] | Heating | °C | 15~55 | 15~55 |
| | | | Cooling | °C | 5~25 | 5~25 |
| | Functions | Smart Grid Ready / PV Enabled | | - | • | • |
| | | 3-Step Quiet Mode | | - | • | • |
| | | 2-zone Control | | - | • | • |
| Tank Integrated Hydro Unit | Power Supply | | | Φ, #, V, Hz | 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz |
| | Water Tank Volume | | | litres | 200 | 200 |
| | Declared Load Profile | | | L/XL | L | L |
| | Average water heating efficiency ηwh | | | ETA% | 115 | 115 |
| | Average Energy Efficiency Class | | | | A+ | A+ |
| | Heater | Back-up heater Capacity | Default (Option) | kW | 2 (4/6) | 2 (4/6) |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 29 | 29 |
| | | | Cooling Std | dB(A) | 29 | 29 |
| | | Sound Power | Heating Std | dB(A) | 43 | 43 |
| | Piping | Water pipe (Space Heating) | Inlet/Outlet | Φ, inch | 1+1/4" | 1+1/4" |
| | Dimensions | Net Weight | | kg | 137 | 137 |
| | | Net Dimensions (WxHxD) | | mm | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| Outdoor Unit | Power Supply | | | Φ, V, Hz | 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz |
| | Compressor | Type | | - | Rotary Comp | Rotary Comp |
| | Base Heater | Capacity | | kW | - | - |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 47 | 48 |
| | | | Cooling Std | dB(A) | 46 | 47 |
| | | Sound Power | Heating Std | dB(A) | 65 | 67 |
| | Dimensions | Net Weight | | kg | 61.0 | 61.0 |
| | | Net Dimensions (WxHxD) | | mm | 880 x 793 x 310 | 880 x 793 x 310 |
| | Refrigerant | Type | | Type | R410A (Fluorinated greenhouse gas, GWP=2,088) | |
| | | Factory Charging | | $tCO_2e$ | 5.43 | 5.43 |
| | | | | kg | 2.6 | 2.6 |
| | Piping | Piping Connections | Liquid Pipe | Φ, mm (inch) | 9.52 (3/8") | 9.52 (3/8") |
| | | | Gas Pipe | Φ, mm (inch) | 15.88 (5/8") | 15.88 (5/8") |
| | | Piping length (ODU-IDU)[5] | Max.[Equiv.] | m | 30 | 30 |
| | | Level difference (IDU-IDU)[5] | Max. | m | 20 | 20 |
| | | Chargeless length | | m | 10 | 10 |
| | Operation | Ambient Temperature A2W | Heating | °C | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 |
| | | Ambient Temperature A2A | Heating | °C | -25~24 | -25~24 |
| | | | Cooling | °C | 10~46 | 10~46 |

## Accessories

|  |  |  |  |  |  |
|---|---|---|---|---|---|
| Touch Controller | Touch Controller | DMS2.5 | Wi-Fi Kit | External Room Sensor | Backup Heater (4/6kW) |
| MWR-WW10*N | MCM-A300N | MIM-D01AN | MIM-H04EN | MRW-TA | MHC-*00FE |

|  |  |  |  |
|---|---|---|---|
| AE200TNWTEH/EU<br>AE090MXTPEH/EU<br>MWR-WW10N | AE200TNWTEH/EU<br>AE090MXTPGH/EU<br>MWR-WW10N | AE260TNWTEH/EU<br>AE044MXTPEH/EU<br>MWR-WW10N | AE260TNWTEH/EU<br>AE066MXTPEH/EU<br>MWR-WW10N |
| 9.0/ 7.7 | 9.0/ 7.7 | 4.4/ 3.8 | 6.6/ 4.8 |
| 8.0 | 8.0 | 5.1 | 6.7 |
| 2.12/ 2.82 | 2.12/ 2.82 | 0.93/ 1.37 | 1.47/ 1.85 |
| 1.85 | 1.86 | 1.03 | 1.48 |
| 4.25/ 2.72 | 4.25/ 2.69 | 4.73/ 2.80 | 4.49/ 2.59 |
| 4.32 | 4.30 | 4.95 | 4.53 |
| 4.42/ 3.01 | 4.44/ 2.86 | 4.41/ 2.83 | 4.41/ 2.96 |
| 174/ 117 | 175/ 111 | 173/ 110 | 173/ 115 |
| A++ / A+ | A+++ / A+ | A++ / A+ | A++ / A+ |
| 22.00 | 10.00 | 18.00 | 20.00 |
| 27.50 | 16.10 | 25.00 | 25.00 |
| 4 | 4 | 2 | 3 |
| 4.50 | 4.50 | 2.20 | 3.30 |
| 9.00 | 9.00 | 4.40 | 6.60 |
| 15~55 | 15~55 | 15~55 | 15~55 |
| 5~25 | 5~25 | 5~25 | 5~25 |
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |
| 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 |
| 200 | 200 | 260 | 260 |
| L | L | XL | XL |
| 115 | 115 | 105 | 105 |
| A+ | A+ | A | A |
| 2 (4/6) | 2 (4/6) | 2 (4/6) | 2 (4/6) |
| 29 | 29 | 29 | 29 |
| 29 | 29 | 29 | 29 |
| 43 | 43 | 43 | 43 |
| 1+1/4" | 1+1/4" | 1+1/4" | 1+1/4" |
| 137 | 137 | 147 | 147 |
| 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| 1Φ, 2, 220~240 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz |
| Rotary Comp | Rotary Comp | Rotary Comp | Rotary Comp |
| - | - | - | - |
| 51 | 51 | 47 | 48 |
| 50 | 50 | 46 | 47 |
| 69 | 69 | 65 | 67 |
| 74.0 | 76.0 | 61.0 | 61.0 |
| 940 x 998 x 330 | 940 x 998 x 330 | 880 x 793 x 310 | 880 x 793 x 310 |
| R410A (Fluorinated greenhouse gas, GWP=2,088) | | | |
| 5.01 | 5.01 | 5.43 | 5.43 |
| 2.4 | 2.4 | 2.6 | 2.6 |
| 9.52 (3/8") | 9.52 (3/8") | 9.52 (3/8") | 9.52 (3/8") |
| 15.88 (5/8") | 15.88 (5/8") | 15.88 (5/8") | 15.88 (5/8") |
| 30 | 30 | 30 | 30 |
| 20 | 20 | 20 | 20 |
| 10 | 10 | 10 | 10 |
| -25~35 | -25~35 | -25~35 | -25~35 |
| 10~46 | 10~46 | 10~46 | 10~46 |
| -25~43 | -25~43 | -25~43 | -25~43 |
| -25~24 | -25~24 | -25~24 | -25~24 |
| 10~46 | 10~46 | 10~46 | 10~46 |

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*35dB(A) is only applicable for 6kW and 9kW outdoor units down to +4°C stated in 3 m distance in an anechoic environment.

**A+++ energy label is available according to EU No. 811/2013 label classification 2019, on a scale from D to A+++

[1] A2W Condition : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

[5] ODU : Outdoor Unit, IDU : Indoor Unit

# Specifications

## ClimateHub TDM Plus (R410A) (Continued)

| | Indoor Unit<br>Outdoor Unit<br>Controller | | | | AE260TNWTEH/EU<br>AE090MXTPEH/EU<br>MWR-WW10N | AE260TNWTEH/EU<br>AE120MXTPEH/EU<br>MWR-WW10N |
|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1] / A7/W55[2] | kW | 9.0/ 7.7 | 12.0/ 10.7 |
| | | | Cooling A35/W18[1] | kW | 8.0 | 12.0 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 2.12/ 2.82 | 2.72/ 3.91 |
| | | | Cooling A35/W18[1] | kW | 1.85 | 2.90 |
| | | COP (Nominal Heating) A7/W35[1] / A7/W55[2] | | W/W | 4.25/ 2.72 | 4.41/ 2.74 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4.32 | 4.14 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 4.42/ 3.01 | 4.65/ 2.92 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 174/ 117 | 183/114 |
| | | Average Seasonal space heating eff. class ** LWT 35°C/ 55°C | | - | A++ / A+ | A+++ / A+ |
| | | Current | MCA | A | 22.00 | 28.00 |
| | | | MFA | A | 27.50 | 35.00 |
| | | Maximum allowable IDU[5] connections (Hydro A2Wunit not included) | Max. number of IDU[5] | EA | 4 | 5 |
| | | | Total capacity Min. (Cooling) | kW | 4.50 | 6.00 |
| | | | Total capacity Min. (Cooling) | kW | 9.00 | 12.10 |
| | | Leaving Water Temperature[3] | Heating | °C | 15~55 | 15~55 |
| | | | Cooling | °C | 5~25 | 5~25 |
| | Functions | Smart Grid Ready / PV Enabled | | - | • | • |
| | | 3-Step Quiet Mode | | - | • | • |
| | | 2-zone Control | | - | • | • |
| Tank Integrated Hydro Unit | Power Supply | | | Φ, #, V, Hz | 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz |
| | Water Tank Volume | | | litres | 260 | 260 |
| | Declared Load Profile | | | L/XL | XL | XL |
| | Average water heating efficiency ηwh | | | ETA% | 105 | 95 |
| | Average Energy Efficiency Class | | | - | A | A |
| | Heater | Back-up heater Capacity | Default (Option) | kW | 2 (4/6) | 2 (4/6) |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 29 | 29 |
| | | | Cooling Std | dB(A) | 29 | 29 |
| | | Sound Power | Heating Std | dB(A) | 43 | 47 |
| | Piping | Water pipe (Space Heating) | Inlet/Outlet | Φ, inch | 1+1/4" | 1+1/4" |
| | Dimensions | Net Weight | | kg | 147 | 147 |
| | | Net Dimensions (WxHxD) | | mm | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| Outdoor Unit | Power Supply | | | Φ, V, Hz | 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz |
| | Compressor | Type | | - | Rotary Comp | Rotary Comp |
| | Base Heater | Capacity | | kW | - | - |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 51 | 52 |
| | | | Cooling Std | dB(A) | 50 | 51 |
| | | Sound Power | Heating Std | dB(A) | 69 | 70 |
| | Dimensions | Net Weight | | kg | 74.0 | 107.0 |
| | | Net Dimensions (WxHxD) | | mm | 940 x 998 x 330 | 940 x 1,420 x 330 |
| | Refrigerant | Type | | Type | R410A (Fluorinated greenhouse gas, GWP=2,088) | |
| | | Factory Charging | | $tCO_2e$ | 5.01 | 7.31 |
| | | | | kg | 2.4 | 3.5 |
| | Piping | Piping Connections | Liquid Pipe | Φ, mm (inch) | 9.52 (3/8") | 9.52 (3/8") |
| | | | Gas Pipe | Φ, mm (inch) | 15.88 (5/8") | 15.88 (5/8") |
| | | Piping length (ODU-IDU)[5] | Max.[Equiv.] | m | 30 | 70 |
| | | Level difference (IDU-IDU)[5] | Max. | m | 20 | 30 |
| | | Chargeless length | | m | 10 | 10 |
| | Operation | Ambient Temperature A2W | Heating | °C | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 |
| | | Ambient Temperature A2A | Heating | °C | -25~24 | -25~24 |
| | | | Cooling | °C | 10~46 | 10~46 |

## Accessories

| Touch Controller |
|---|
| MWR-WW10*N |

| Touch Controller |
|---|
| MCM-A300N |

| DMS2.5 |
|---|
| MIM-D01AN |



| Wi-Fi Kit |
|---|
| MIM-H04EN |

| External Room Sensor |
|---|
| MRW-TA |

| Backup Heater (4/6kW) |
|---|
| MHC-*00FE |

| AE260TNWTEH/EU<br>AE160MXTPEH/EU<br>MWR-WW10N | AE260TNWTEH/EU<br>AE090MXTPGH/EU<br>MWR-WW10N | AE260TNWTEH/EU<br>AE120MXTPGH/EU<br>MWR-WW10N | AE260TNWTEH/EU<br>AE160MXTPGH/EU<br>MWR-WW10N |
|---|---|---|---|
| 16.0/ 14.6 | 9.0/ 7.7 | 12.0/ 10.7 | 16.0/ 14.6 |
| 14.5 | 8.0 | 12.0 | 14.5 |
| 3.95/ 5.32 | 2.12/ 2.82 | 2.72/ 3.91 | 3.95/ 5.32 |
| 3.84 | 1.86 | 2.90 | 3.84 |
| 4.05/2.74 | 4.25/2.69 | 4.41/ 2.74 | 4.05/2.74 |
| 3.78 | 4.30 | 4.14 | 3.78 |
| 4.63/3.06 | 4.44/2.86 | 4.65/2.92 | 4.63/ 3.06 |
| 182/ 119 | 175/ 111 | 183/ 114 | 182/ 119 |
| A+++ / A+ | A+++ / A+ | A+++ / A+ | A+++ / A+ |
| 32.00 | 10.00 | 10.00 | 12.00 |
| 40.00 | 16.10 | 16.10 | 16.10 |
| 7 | 4 | 5 | 7 |
| 7.70 | 4.50 | 6.00 | 7.70 |
| 15.40 | 9.00 | 12.10 | 15.40 |
| 15~55 | 15~55 | 15~55 | 15~55 |
| 5~25 | 5~25 | 5~25 | 5~25 |
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |
| 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 |
| 260 | 260 | 260 | 260 |
| XL | XL | XL | XL |
| 95 | 105 | 95 | 95 |
| A | A | A | A |
| 2 (4/6) | 2 (4/6) | 2 (4/6) | 2 (4/6) |
| 29 | 29 | 29 | 29 |
| 29 | 29 | 29 | 29 |
| 47 | 43 | 47 | 47 |
| 1+1/4'' | 1+1/4" | 1+1/4" | 1+1/4" |
| 147 | 147 | 147 | 147 |
| 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| 1Φ, 2, 220~240 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz |
| Rotary Comp | Rotary Comp | Rotary Comp | Rotary Comp |
| - | - | - | - |
| 55 | 51 | 52 | 55 |
| 54 | 50 | 51 | 54 |
| 73 | 69 | 70 | 73 |
| 107.0 | 76.0 | 107.0 | 107.0 |
| 940 x 1,420 x 330 | 940 x 998 x 330 | 940 x 1,420 x 330 | 940 x 1,420 x 330 |
| R410A (Fluorinated greenhouse gas, GWP=2,088) | | | |
| 7.31 | 5.01 | 7.31 | 7.31 |
| 3.5 | 2.4 | 3.5 | 3.5 |
| 9.52 (3/8'') | 9.52 (3/8'') | 9.52 (3/8'') | 9.52 (3/8'') |
| 15.88 (5/8'') | 15.88 (5/8'') | 15.88 (5/8'') | 15.88 (5/8'') |
| 70 | 30 | 70 | 70 |
| 30 | 20 | 30 | 30 |
| 10 | 10 | 10 | 10 |
| -25~35 | -25~35 | -25~35 | -25~35 |
| 10~46 | 10~46 | 10~46 | 10~46 |
| -25~43 | -25~43 | -25~43 | -25~43 |
| -25~24 | -25~24 | -25~24 | -25~24 |
| 10~46 | 10~46 | 10~46 | 10~46 |

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*35dB(A) is only applicable for 6kW and 9kW outdoor units down to +4°C stated in 3 m distance in an anechoic environment.

**A+++ energy label is available according to EU No. 811/2013 label classification 2019, on a scale from D to A+++

[1] A2W Condition : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition : (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

[5] ODU : Outdoor Unit, IDU : Indoor Unit

# Specifications

## TDM Plus with Third party tank connection (R410A)

- 'All in one' air-to-water and air-to-air system
- Connectable with R410A Split ODU in combination of third party Tank
- Compatible with room thermostats, solar pumps, 2- or 3-way valves and back-up boilers
- PV Enabled and Smart Grid ready.
- 2-zone Control, suitable for floor heating and radiators.
- Backup heater is recommended to ensure a minimum water temperature.





| | Indoor Unit | | | | AE090BNYDEH/EU | AE090BNYDEH/EU | AE090BNYDEH/EU | AE090BNYDEH/EU |
|---|---|---|---|---|---|---|---|---|
| | Outdoor Unit | | | | AE044MXTPEH/EU | AE066MXTPEH/EU | AE090MXTPEH/EU | AE090MXTPGH/EU |
| System | Operation | Nominal Capacity | Heating A7/W35[1]/ A7/W55[2] | kW | 4.4/ 3.8 | 6.6/ 4.8 | 9.0/ 7.7 | 9.0/ 7.7 |
| | | | Cooling A35/W18[1] | kW | 5.1 | 6.7 | 8.0 | 8.0 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 0.93/ 1.37 | 1.47/ 1.85 | 2.12/ 2.82 | 2.12/ 2.82 |
| | | | Cooling A35/W18[1] | kW | 1.03 | 1.48 | 1.85 | 1.86 |
| | | COP (Nominal Heating) A7/W35[1] | | W/W | 4.73/2.80 | 4.49/2.59 | 4.25/2.72 | 4.25/2.69 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4.95 | 4.53 | 4.32 | 4.30 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 4.41/ 2.83 | 4.41/2.96 | 4.42/ 3.01 | 4.44/ 2.86 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 173/ 110 | 173/ 115 | 174/ 117 | 175/ 111 |
| | | Seasonal Space Heating Eff. Class LWT 35°C/55°C | | | A++ / A+ | A++ / A+ | A++ / A+ | A+++ / A+ |
| | | Current | MCA | A | 18 | 20 | 22 | 10 |
| | | | MFA | A | 25.0 | 25.0 | 27.5 | 16.1 |
| | | Maximum Allowable IDU[6] Connections (Hydro A2W Unit Not Included) | Max. Number of IDU[6] | EA | 2 | 3 | 4 | 4 |
| | | | Total Capacity Min. (Cooling) | kW | 2.2 | 3.3 | 4.5 | 4.5 |
| | | | Total Capacity Min. (Cooling) | kW | 4.4 | 6.6 | 9.0 | 9.0 |
| | | Leaving Water Temperature[3] | Heating | °C | 15~55 (H/P : 25~55) | 15~55 (H/P : 25~55) | 15~55 (H/P : 25~55) | 15~55 (H/P : 25~55) |
| | | | Cooling | °C | 5~25 | 5~25 | 5~25 | 5~25 |
| | Functions | Smart Grid Ready/PV Enabled | | - | • | • | • | • |
| | | 3-Step Quiet Mode | | - | • | • | • | • |
| | | 2-zone Control | | - | • | • | • | • |
| Wall-Mounted Hydro Unit | 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 | 3Φ, 4, 380~415 V, 50 Hz |
| | Expansion Vessel | | | litres | 8 | 8 | 8 | 8 |
| | Heater | Back-up heater Capacity | | kW | 4 | 4 | 4 | 6 |
| | Sound | Sound Pressure[4] | Std | dB(A) | 31 | 31 | 31 | 31 |
| | | Sound Power | Std | dB(A) | 48 | 48 | 48 | 48 |
| | Piping | Water pipe | Inlet/Outlet | Φ, inch | 1+1/4'' | 1+1/4'' | 1+1/4'' | 1+1/4'' |
| | Dimensions | Net Weight | | kg | 45.5 | 45.5 | 45.5 | 46.5 |
| | | Net Dimensions (WxHxD) | | mm | 510 x 850 x 315 | 510 x 850 x 315 | 510 x 850 x 315 | 510 x 850 x 315 |
| Outdoor Unit | 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 | 3Φ, 4, 380~415 V, 50 Hz |
| | Compressor | Type | | - | Rotary Comp | Rotary Comp | Rotary Comp | Rotary Comp |
| | Base Heater | Capacity | | kW | - | - | - | - |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 47 | 48 | 51 | 51 |
| | | | Cooling Std | dB(A) | 46 | 47 | 50 | 50 |
| | | Sound Power | Heating Std | dB(A) | 65 | 67 | 69 | 69 |
| | Dimensions | Net Weight | | kg | 61 | 61 | 74 | 76 |
| | | Net Dimensions (WxHxD) | | mm | 880 x 793 x 310 | 880 x 793 x 310 | 940 x 998 x 330 | 940 x 998 x 330 |
| | Refrigerant | Type | | - | R410A (Fluorinated greenhouse gas, GWP=2,088) | | | |
| | | Factory Charging | | $tCO_2e$ | 5.43 | 5.43 | 5.01 | 5.01 |
| | | | | kg | 2.6 | 2.6 | 2.4 | 2.4 |
| | Piping | Piping Connections | Liquid Pipe | Φ, mm (inch) | 9.52 (3/8'') | 9.52 (3/8'') | 9.52 (3/8'') | 9.52 (3/8'') |
| | | | Gas Pipe | Φ, mm (inch) | 15.88 (5/8'') | 15.88 (5/8'') | 15.88 (5/8'') | 15.88 (5/8'') |
| | | Piping Length (ODU-IDU)[5] | Max.[Equiv.] | m | 30 | 30 | 30 | 30 |
| | | Level Difference (IDU-IDU)[5] | Max. | m | 20 | 20 | 20 | 20 |
| | | Chargeless Length | | m | 10 | 10 | 10 | 10 |
| Operation | Ambient Temperature A2W | | Heating | °C | -25~35 | -25~35 | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 | -25~43 | -25~43 |
| | Ambient Temperature A2A | | Heating | °C | -25~24 | -25~24 | -25~24 | -25~24 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 | 10~46 |

## Accessories

EHS Controller (included)

MWR-WW10*N

Touch Controller

MCM-A300N

DMS2.5

MIM-D01AN



Wi-Fi Kit

MIM-H04EN

External Room Sensor

MRW-TA

| AE160BNYDEH/EU<br>AE120MXTPEH/EU | AE160BNYDGH/EU<br>AE120MXTPGH/EU | AE160BNYDEH/EU<br>AE160MXTPEH/EU | AE160BNYDGH/EU<br>AE160MXTPGH/EU |
|---|---|---|---|
| 12.0/ 10.7 | 12.0/ 10.7 | 16.0/ 14.6 | 16.0/ 14.6 |
| 12.0 | 12.0 | 14.5 | 14.5 |
| 2.72/ 3.91 | 2.72/ 3.91 | 3.95/ 5.32 | 3.95/ 5.32 |
| 2.90 | 2.90 | 3.84 | 3.84 |
| 4.41/2.74 | 4.41/2.74 | 4.05/2.74 | 4.05/2.74 |
| 4.14 | 4.14 | 3.78 | 3.78 |
| 4.65/ 2.92 | 4.65/ 2.92 | 4.63/ 3.06 | 4.63/ 3.06 |
| 183/ 114 | 183/ 114 | 182/ 119 | 182/ 119 |
| A+++ / A+ | A+++ / A+ | A+++ / A+ | A+++ / A+ |
| 28 | 10 | 32 | 12 |
| 35.0 | 16.1 | 40.0 | 16.1 |
| 5 | 5 | 7 | 7 |
| 6.0 | 6.0 | 7.7 | 7.7 |
| 12.1 | 12.1 | 15.4 | 15.4 |
| 15~55 (H/P : 25~55) | 15~55 (H/P : 25~55) | 15~55 (H/P : 25~55) | 15~55 (H/P : 25~55) |
| 5~25 | 5~25 | 5~25 | 5~25 |
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |
| 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 |
| 8 | 8 | 8 | 8 |
| 6 | 6 | 6 | 6 |
| 38 | 38 | 38 | 38 |
| 55 | 55 | 55 | 55 |
| 1+1/4'' | 1+1/4'' | 1+1/4'' | 1+1/4'' |
| 46.5 | 46.5 | 46.5 | 46.5 |
| 510 x 850 x 315 | 510 x 850 x 315 | 510 x 850 x 315 | 510 x 850 x 315 |
| 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 |
| Rotary Comp | Rotary Comp | Rotary Comp | Rotary Comp |
| - | - | - | - |
| 52 | 52 | 55 | 55 |
| 51 | 51 | 54 | 54 |
| 70 | 70 | 73 | 73 |
| 107 | 107 | 107 | 107 |
| 940 x 1,420 x 330 | 940 x 1,420 x 330 | 940 x 1,420 x 330 | 940 x 1,420 x 330 |
| R410A (Fluorinated greenhouse gas, GWP=2,088) | | | |
| 7.31 | 7.31 | 7.31 | 7.31 |
| 3.5 | 3.5 | 3.5 | 3.5 |
| 9.52 (3/8'') | 9.52 (3/8'') | 9.52 (3/8'') | 9.52 (3/8'') |
| 15.88 (5/8'') | 15.88 (5/8'') | 15.88 (5/8'') | 15.88 (5/8'') |
| 70 | 70 | 70 | 70 |
| 30 | 30 | 30 | 30 |
| 10 | 10 | 10 | 10 |
| -25~35 | -25~35 | -25~35 | -25~35 |
| 10~46 | 10~46 | 10~46 | 10~46 |
| -25~43 | -25~43 | -25~43 | -25~43 |
| -25~24 | -25~24 | -25~24 | -25~24 |
| 10~46 | 10~46 | 10~46 | 10~46 |

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

*35dB(A) is only applicable for 6kW and 9kW outdoor units down to +4°C stated in 3 m distance in an anechoic environment.

**A+++ energy label is available according to EU No. 811/2013 label classification 2019, on a scale from D to A+++

[1] A2W Condition: (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition: (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

[5] ODU: Outdoor Unit, IDU: Indoor Unit

# Specifications

## TDM Plus WindFree™ Deluxe

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







| Type / Model Name | | | TDM Plus WindFree™ Deluxe AE022TNXDEH/EU | TDM Plus WindFree™ Deluxe AE028TNXDEH/EU | TDM Plus WindFree™ Deluxe AE036TNXDEH/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 |
| Capacity | Cooling | kW | 2.20 | 2.80 | 3.60 |
| | Heating | kW | 2.50 | 3.20 | 4.00 |
| Power Input (Nominal) | Cooling | W | 24.0 | 30.0 | 37.0 |
| | Heating | W | 24.0 | 30.0 | 37.0 |
| Current Input (Nominal) | Cooling | A | 0.16 | 0.20 | 0.25 |
| | Heating | A | 0.16 | 0.20 | 0.25 |
| Fan | Type | - | Cross flow Fan | Cross flow Fan | Cross flow Fan |
| | Quantity | EA | 1 | 1 | 1 |
| | Air Flow Rate H/M/L | $m^3$/min | 5.7/5.0/4.5 | 8.5/7.7/6.9 | 10.3/9.1/8.3 |
| | | l/s | 95.0/83.3/75.0 | 141.7/128.3/115.0 | 171.7/151.7/138.3 |
| Fan motor | Type | - | BLDC | BLDC | BLDC |
| | Output xn | W | 27x1 | 27x1 | 27x1 |
| Piping Connections | Liquid Pipe | Φ, mm(inch) | 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") |
| | Gas Pipe | Φ, mm(inch) | 12.7 (1/2") | 12.7 (1/2") | 12.7 (1/2") |
| Wiring connections | For power supply below 20m/over 20m (min) | $mm^2$ | 1.5/2.5 | 1.5/2.5 | 1.5/2.5 |
| | Communication (min) | $mm^2$ | 0.75 | 0.75 | 0.75 |
| Refrigerant | Type | - | R410A (Fluorinated greenhouse gas, GWP=2,088) | | |
| | Control Method [1] | - | EEV NOT INCLUDED | EEV NOT INCLUDED | EEV NOT INCLUDED |
| Sound | Sound Pressure H/M/L/WF [2] | dB(A) | 34/32/30/27 | 34/33/32/26 | 40/36/34/26 |
| | Sound Power | dB(A) | 51 | 52 | 56 |
| Dimensions | Net Weight | kg | 8.50 | 9.00 | 9.00 |
| | Net Dimensions (WxHxD) | mm | 820 x 299 x 215 | 820 x 299 x 215 | 820 x 299 x 215 |
| Functions | | | | | |
| Air Flow | WindFree™ Cooling | | • | • | • |
| | Air Direction Control (Up/Down) | | Auto | Auto | Auto |
| | Air Direction Control (Left/Right) | | Auto | Auto | Auto |
| Air Purification | Auto Fan speed | | • | • | • |
| | Tri-Care Filter | | - | - | - |
| | Easy Filter Plus | | • | • | • |
| | Auto Clean (Self Cleaning) | | • | • | • |
| Operating Mode | 2 Step Cooling | | • | • | • |
| | AI Auto Comfort with Wi-Fi & MDS (direct/indirect) | | - | - | - |
| | AI Auto Comfort with Wi-Fi | | - | - | - |
| | Auto Mode (without Wi-Fi) | | - | - | - |
| | Fast Cooling | | • | • | • |
| | Good Sleep | | • | • | • |
| | Eco | | • | • | • |
| | Dehumidification | | • | • | • |
| | Fan | | • | • | • |
| | Quiet | | • | • | • |
| Other Functions | Samsung SmartThings | | • | • | • |
| | MDS (Motion Detect Sensor) | | - | - | - |
| | Indoor Temp. Display | | • | • | • |
| | Display On/Off | 88 Display | • | • | • |
| | Beep On/Off | | • | • | • |
| | Auto Changeover | | • | • | • |
| | Auto Restart | | • | • | • |

## Accessories






| 1-room EEV Kit | 2/3 Room EEV Kit | Wireless Remote Controller (included) | Touch Controller | DMS2.5 | Wi-Fi Kit |
|---|---|---|---|---|---|
| MEV-E**SA | MXD-E**K***A | AR-EH03E | MWR-SH11N | MIM-D01AN | MIM-H04EN |




| TDM Plus WindFree™ Deluxe AE056TNXDEH/EU | TDM Plus WindFree™ Deluxe AE071TNXDEH/EU |
|---|---|
| 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz |
| 5.60 | 6.80 |
| 6.30 | 7.00 |
| 52.0 | 60.0 |
| 52.0 | 60.0 |
| 0.35 | 0.40 |
| 0.35 | 0.40 |
| Cross flow Fan | Cross flow Fan |
| 1 | 1 |
| 15.7/13.8/12.0 | 16.8/15.0/13.2 |
| 261.7/230.0/200.0 | 280.0/250.0/220.0 |
| BLDC | BLDC |
| 27x1 | 27x1 |
| 6.35 (1/4") | 9.52 (3/8") |
| 12.7 (1/2") | 15.88 (5/8") |
| 1.5/2.5 | 1.5/2.5 |
| 0.75 | 0.75 |
| R410A (Fluorinated greenhouse gas, GWP=2,088) | |
| EEV NOT INCLUDED | EEV NOT INCLUDED |
| 40/37/34/29 | 43/40/37/29 |
| 58 | 62 |
| 11.50 | 11.50 |
| 1,055 x 299 x 215 | 1,055 x 299 x 215 |
| | |
| • | • |
| Auto | Auto |
| Auto | Auto |
| • | • |
| - | - |
| • | • |
| • | • |
| • | • |
| - | - |
| - | - |
| - | - |
| • | • |
| • | • |
| • | • |
| • | • |
| • | • |
| • | • |
| • | • |
| - | - |
| • | • |
| • | • |
| • | • |
| • | • |
| • | • |

Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m)

Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB

Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB

[1] EEV Kit is necessary to control the refrigerant flow in the TDM Plus WindFree™ Deluxe (EEV Excluded), please order EEV Kit separately.

[2] 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.

# Specifications

## TDM Plus Slim Duct

- Slim design with thickness of just 199 mm.
- Antibacterial filter included.




| Type / Model Name | | | | Slim Duct AE022ANLDEH/EU | Slim Duct AE028ANLDEH/EU | Slim Duct AE036ANLDEH/EU | Slim Duct AE056ANLDEH/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 | Cooling/ Heating | kW | 2.2/2.5 | 2.8/3.2 | 3.6/4.0 | 5.6/6.3 |
| Power | Power Input | Cooling/ Heating | W | 30/30 | 34/36 | 40/42 | 73/68 |
| | Current Input | Cooling/ Heating | A | 0.25/0.25 | 0.28/0.30 | 0.33/0.35 | 0.62/0.58 |
| Fan | Type | | - | Sirocco Fan | Sirocco Fan | Sirocco Fan | Sirocco Fan |
| | Quantity | | EA | 2 | 2 | 2 | 2 |
| | Air Flow Rate | H/M/L (UL) | m³/min | 6/4.9/3.8 | 7.05/5.15/4.35 | 8.20/6.50/4.9 | 15.5/12.5/9.5 |
| | External Pressure | Max. (Min/ Std/Max) | mmAq | 0/1/3 | 0/1/3 | 0/1/3 | 0/2/4 |
| | | | Pa | 0/9.8/29.4 | 0/9.8/29.4 | 0/9.8/29.4 | 0/19.6/39.2 |
| Fan Motor | Type | | - | SSR non-feedback | SSR non-feedback | SSR non-feedback | SSR non-feedback |
| | Output | | W | 69 | 69 | 69 | 69 |
| Piping Connections | Liquid Pipe | | Φ, mm (inch) | 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") |
| | Gas Pipe | | Φ, mm (inch) | 12.7 (1/2") | 12.7 (1/2") | 12.7 (1/2") | 12.7 (1/2") |
| Refrigerant | Type | | - | R410A (Fluorinated greenhouse gas, GWP=2,088) | | | |
| Sound | Sound Pressure | H/M/L | dB(A) | 26/24/21 | 27/25/23 | 29/26/23 | 34/30/26 |
| | Sound Power | | dB(A) | 48 | 49 | 51 | 54 |
| Dimensions | Net Weight | | kg | 15 | 15 | 17 | 18.9 |
| | Net Dimensions (W×H×D) | | mm | 700 x 199 x 440 | 700 x 199 x 440 | 700 x 199 x 440 | 700 x 199 x 440 |
| Optional Accessories | Drain Pump | Model | - | (Built-in) | (Built-in) | (Built-in) | (Built-in) |
| | | Max. lifting Height/ Displace-ment | mm / Litre/h | 750/24 | 750/24 | 750/24 | 750/24 |

### Accessories






| Drain Pump (Built-in) | Remote Control | Touch Controller | Wireless Receiver Kit | Touch Controller | DMS2.5 |
|---|---|---|---|---|---|
| MDP-E075SEE3D | AR-EH00 | MWR-SH11N | MRK-A10N | MCM-A300N | MIM-D01AN |



| Wi-Fi Kit | External Room Sensor | Y-joint |
|---|---|---|
| MIM-H04EN | MRW-TA | MXJ-YA1509M |

# Specifications

## TDM Plus MSP Duct

- External static pressure range from 0 to 1.4 mmAq.
- Built-in electronic expansion valve (EEV) for refrigerant flow control (2000 step).
- Long-life washable permanent filter is included.
- Auto Restart function.
- Built-in condensation drain pump (750 mm$H_2O$).

| Type / Model Name | | | | MSP Duct AE036BNMPEH/EU | MSP Duct AE056BNMPEH/EU | MSP Duct AE071MNMPEH/EU | MSP Duct AE090MNMPEH/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 | Cooling / Heating | kW | 3.6/4 | 5.6/6.3 | 7.1/8.0 | 9.0/10.0 |
| Power | Power Input | Cooling / Heating | W | 0.045/0.045 | 0.07/0.07 | 120/120 | 145/145 |
| | Current Input | Cooling / Heating | A | 0.4/0.4 | 0.6/0.6 | 1.0/1.0 | 1.2/1.2 |
| Fan | Type | | - | Sirocco Fan | Sirocco Fan | Sirocco Fan | Sirocco Fan |
| | Quantity | | EA | 2 | 2 | 2 | 2 |
| | Air Flow Rate | H/M/L (UL) | m³/min | 12.0/9.5/7.5 | 16.0/13.5/9.0 | 22/19/16 | 29/25/22 |
| | External Pressure | Max. (Min/ Std/Max) | mmAq | 0/2.5/15 | 0/3/15 | 0/3/15 | 0/4/15 |
| | | | Pa | 0/24.5/147.0 | 0/29.4/147.0 | 0/29.4/147.2 | 0/29.4/147.2 |
| Fan Motor | Type | | - | BLDC Feedback | BLDC Feedback | BLDC Feedback | BLDC Feedback |
| | Output x n | | W | 153x1 | 153x1 | 153x1 | 153x1 |
| Piping Connections | Liquid Pipe | | Φ, mm (inch) | 6.35 (1/4") | 6.35 (1/4") | 9.52 (3/8") | 9.52 (3/8") |
| | Gas Pipe | | Φ, mm (inch) | 12.7 (1/2") | 12.7 (1/2") | 15.88 (5/8") | 15.88 (5/8") |
| Refrigerant | Type | | - | R410A (Fluorinated greenhouse gas, GWP=2,088) | | | |
| Sound | Sound Pressure | H/M/L | dB(A) | 30/27/24 | 32/29/ 25 | 37/33/29 | 38/35/32 |
| | Sound Power | | dB(A) | 53 | 57 | 57 | 58 |
| Dimensions | Net Weight | | kg | 27.9 | 27.9 | 25.5 | 33 |
| | Net Dimensions (W×H×D) | | mm | 32 | 32 | 850x250x700 | 1,200x250x700 |
| Optional Accessories | Drain Pump | Model | - | MDP-G075SQ (Built-in) | MDP-G075SQ (Built-in) | MDP-G075SQ (Built-in) | MDP-G075SQ (Built-in) |
| | | | | MDP-G075SP (External) | MDP-G075SP (External) | MDP-G075SP (External) | MDP-G075SP (External) |
| | | Max. lifting Height/ Displacement | mm / Litre/h | 750/24 | 750/24 | 750/24 | 750/24 |

### Accessories





| Drain Pump (Built-in) | External Drain Pump | Remote Control | Touch Controller | Touch Controller |
|---|---|---|---|---|
| MDP-G075SQ | MDP-G075SP | AR-EH00 | MWR-SH11N | MCM-A300N |



| DMS2.5 | Wi-Fi Kit | External Room Sensor | Wireless Receiver Kit | Y-joint |
|---|---|---|---|---|
| MIM-D01AN | MIM-H04EN | MRW-TA | MRK-A10N | MXJ-YA1509M |

# Specifications

## TDM Plus Console

- SPi Ioniser device (included).
- Slim design with 199mm in depth.
- Built-in electronic expansion valve (EEV) for refrigerant flow control (2,000 step).
- Long-life washable permanent filter.
- Auto Restart function.
- Two separate air outlets, upper (cooling) and bottom (heating) to avoid stratifications.




| Type / Model Name | | | | Console AE022MNJDEH/EU | Console AE028MNJDEH/ EU | Console AE036MNJDEH/ EU | Console AE056MNJDEH/ 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 | Cooling / Heating | kW | 2.2/2.5 | 2.8/3.2 | 3.6/4.0 | 5.6/6.3 |
| Power | Power Input | Cooling / Heating | W | 16/16 | 30/30 | 35/35 | 62/62 |
| | Current Input | Cooling / Heating | A | 0.13/0.13 | 0.25/0.25 | 0.29/0.29 | 0.49/0.49 |
| Fan | Type | | - | Turbo Fan | Turbo Fan | Turbo Fan | Turbo Fan |
| | Quantity | | EA | 1 | 1 | 1 | 1 |
| | Air Flow Rate | H/M/L (UL) | m³/min | 6.3 / 5.4 / 4.9 | 7.0 / 6.0 / 5.0 | 8.50 / 7.50 / 6.50 | 13.0 / 11.5 / 10.0 |
| Piping Connections | Liquid Pipe | | Φ, mm (inch) | 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") | 6.35 (1/4") |
| | Gas Pipe | | Φ, mm (inch) | 12.7 (1/2") | 12.7 (1/2") | 12.7 (1/2") | 12.7 (1/2") |
| Refrigerant | Type | | - | R410A (Fluorinated greenhouse gas, GWP=2,088) | | | |
| Sound | Sound Pressure | H/M/L | dB(A) | 34 / 32 / 30 | 38 / 36 / 34 | 39 / 37 / 34 | 43 / 40 / 37 |
| | Sound Power | | dB(A) | 52 | 58 | 59 | 64 |
| Dimensions | Net Weight | | kg | 15,5 | 16 | 16 | 16 |
| | Net Dimensions (W×H×D) | | mm | 720 x 620 x 199 | 720 x 620 x 199 | 720 x 620 x 199 | 720 x 620 x 199 |

### Accessories





| Touch Controller | Remote Control (Included) | Touch Controller | DMS2.5 | Wi-Fi Kit | External Room Sensor | Y-joint |
|---|---|---|---|---|---|---|
| MWR-SH11N | MR-EH00 | MCM-A300N | MIM-D01AN | MIM-H04EN | MRW-TA | MXJ-YA1509M |

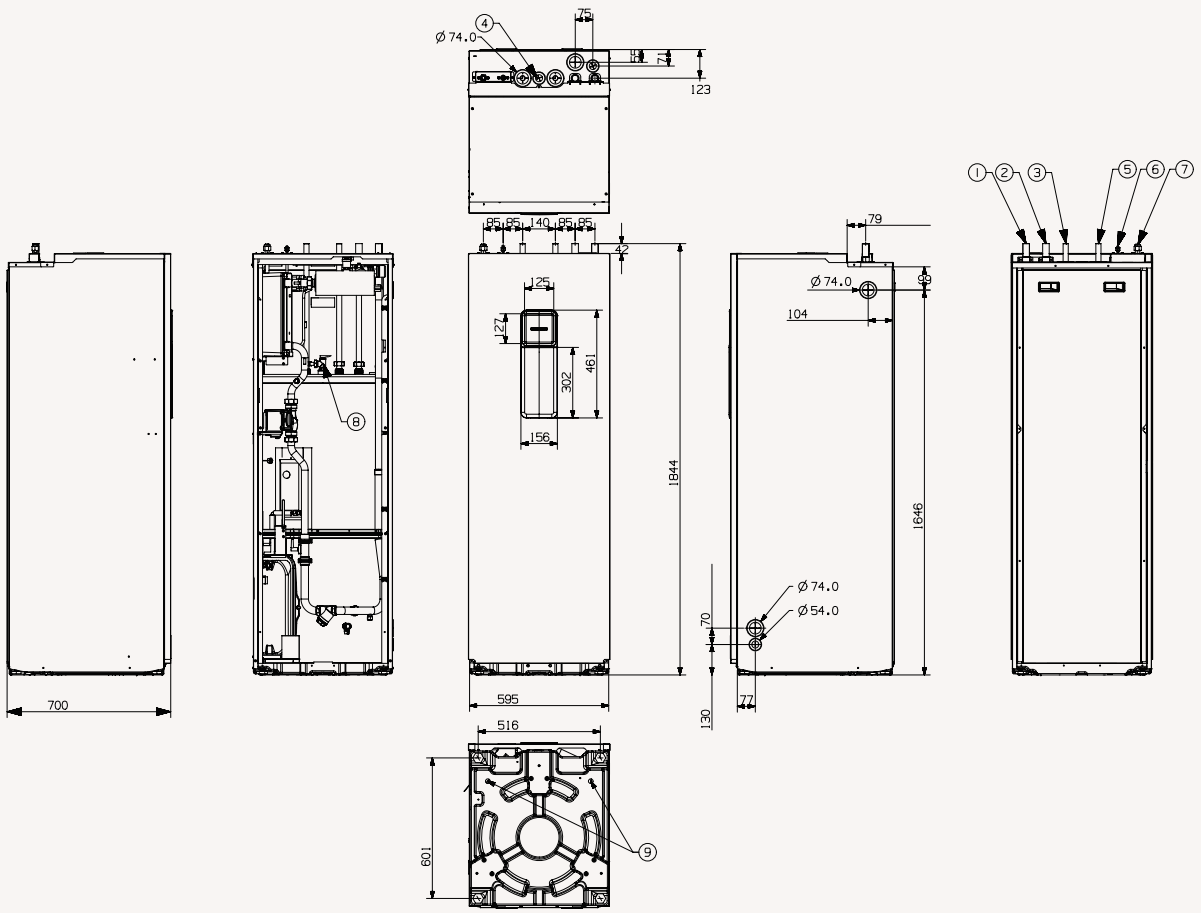

follow

# Dimensional Drawings

## TDM Plus Tank Integrated Hydro Unit

AE200TNWTEH/EU, AE260TNWTEH/EU

Units: mm

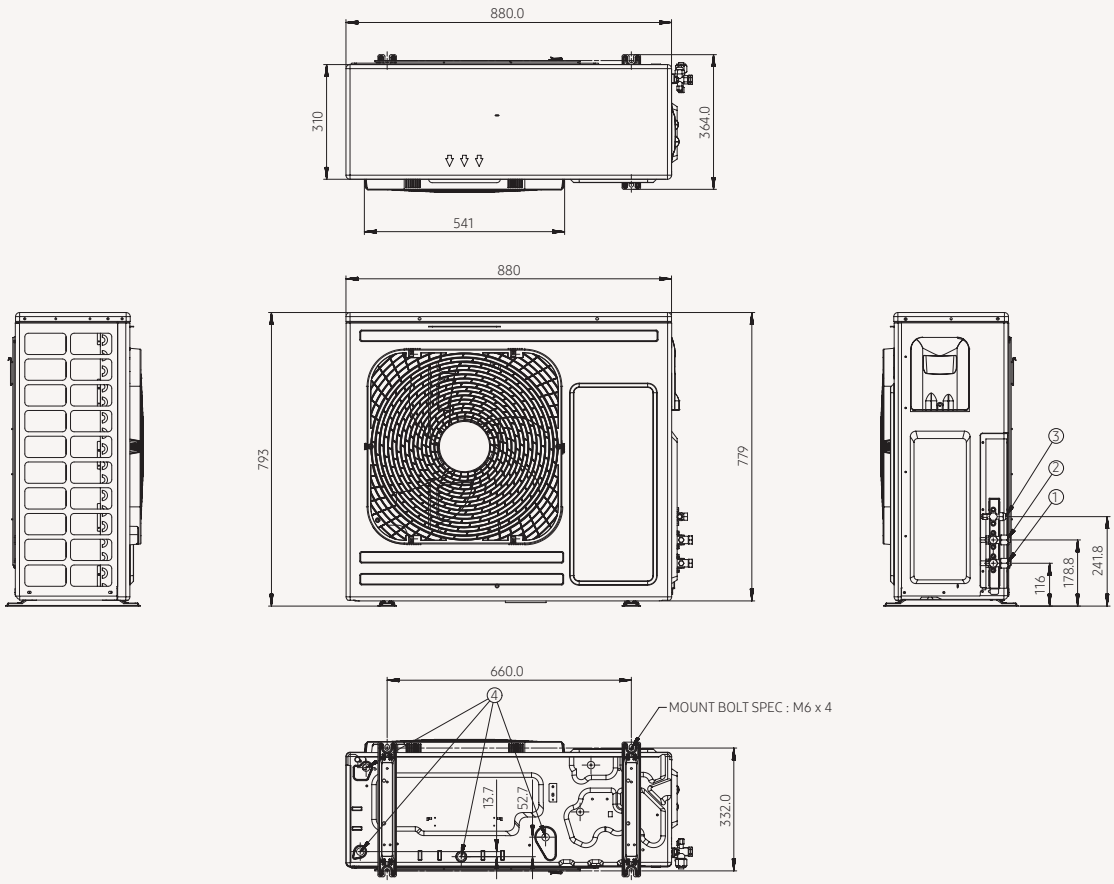



| NO | Name | Description | |
|---|---|---|---|
| | | AE200TNWTEH/EU | AE260TNWTEH/EU |
| 1 | Space heating Inlet | Ø28 | Ø28 |
| 2 | Space heating Outlet | Ø28 | Ø28 |
| 3 | DHW Inlet | Ø22 | Ø22 |
| 4 | Secondary water return | N/A | Ø22 |
| 5 | DHW Outlet | Ø22 | Ø22 |
| 6 | Refrigerant liquid pipe | Ø6.35 | Ø6.35 |
| 7 | Refrigerant Gas pipe | Ø15.88 | Ø15.88 |
| 8 | T/Pv/v | Female PT1/2" | Female PT1/2" |
| 9 | Drain Holes | (Option) Connect with the provided drain plug | |

# TDM Plus Outdoor

## AE044/066MXTPEH/EU

Units: mm

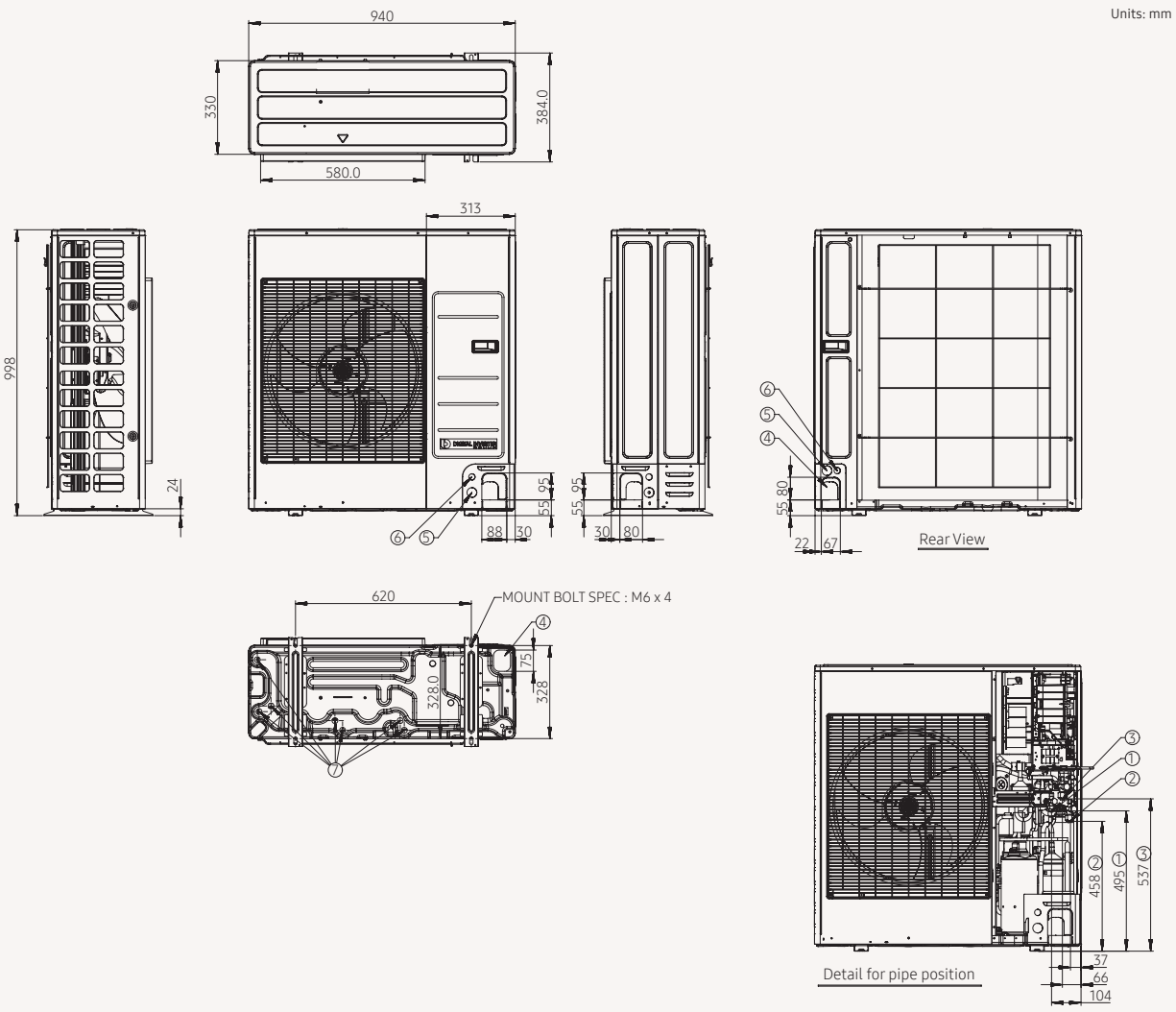



| NO | Name | Description | |
|---|---|---|---|
| | | 4.4 kW | 6.6 kW |
| 1 | Refrigerant gas pipe for air | Φ15.88 (5/8") | |
| 2 | Refrigerant gas pipe for water | Φ15.88 (5/8") | |
| 3 | Refrigerant liquid pipe | Φ9.52 (3/8") | |
| 4 | Drain holes | Connect with the provided drain plug. | |

# Dimensional Drawings

## TDM Plus Outdoor

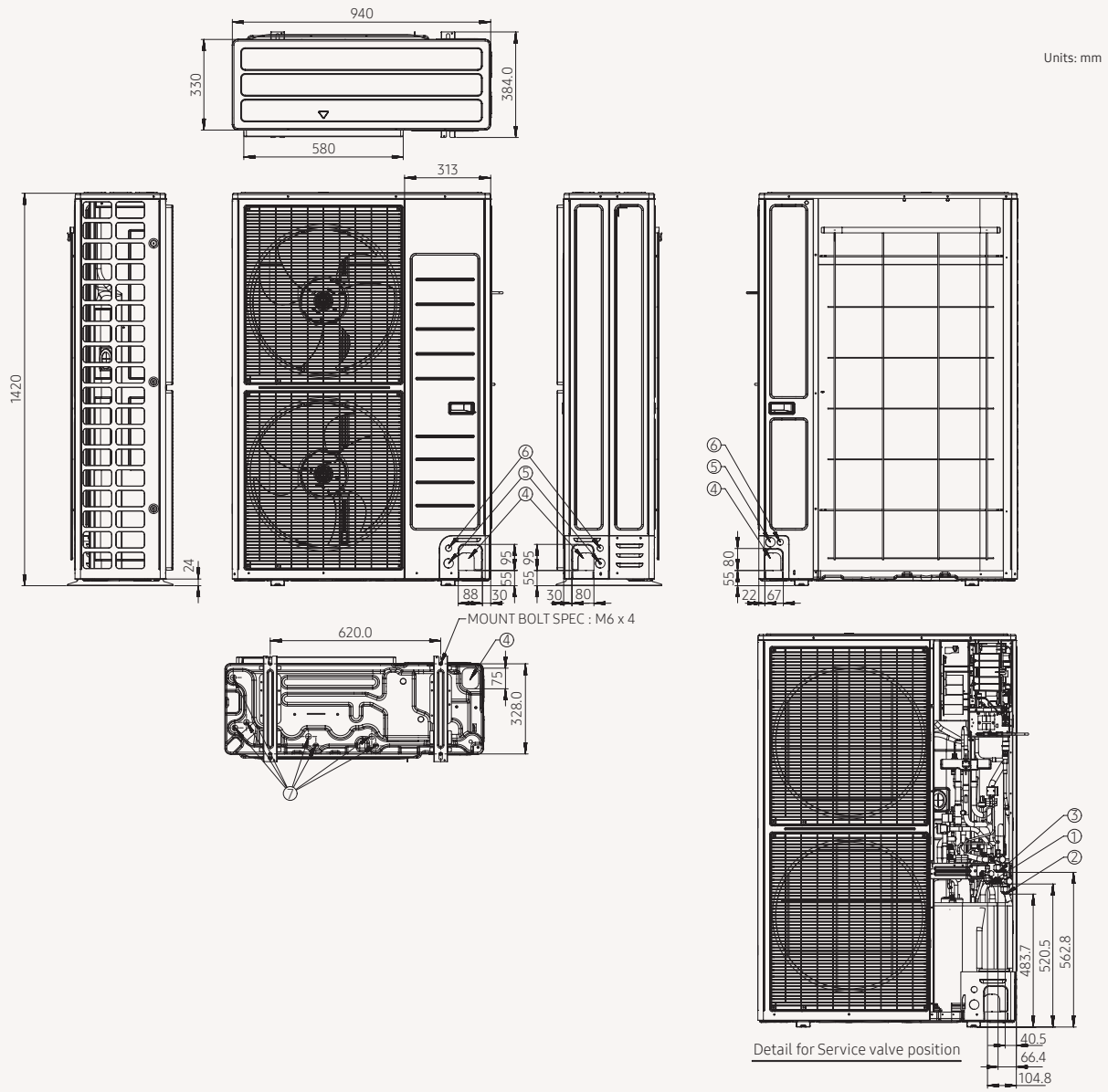
AE090MXTP*H/EU




| NO | Name | Description |
|---|---|---|
| | | 9 kW |
| 1 | Refrigerant liquid pipe | Φ9.52 (3/8") |
| 2 | Refrigerant gas pipe for air | Φ15.88 (5/8") |
| 3 | Refrigerant gas pipe for water | Φ15.88 (5/8") |
| 4 | Knockout hole for pipe intake | Front / Side / Rear / Bottom |
| 5 | Power wiring conduits | Front / Side / Rear, Φ34 (1-3/8") |
| 6 | Communication wiring conduits | Front / Side / Rear, Φ22 (7/8") |
| 7 | Drain holes | Connect with the provided drain plug. |

# TDM Plus Outdoor

## AE120/160MXTP*H/EU



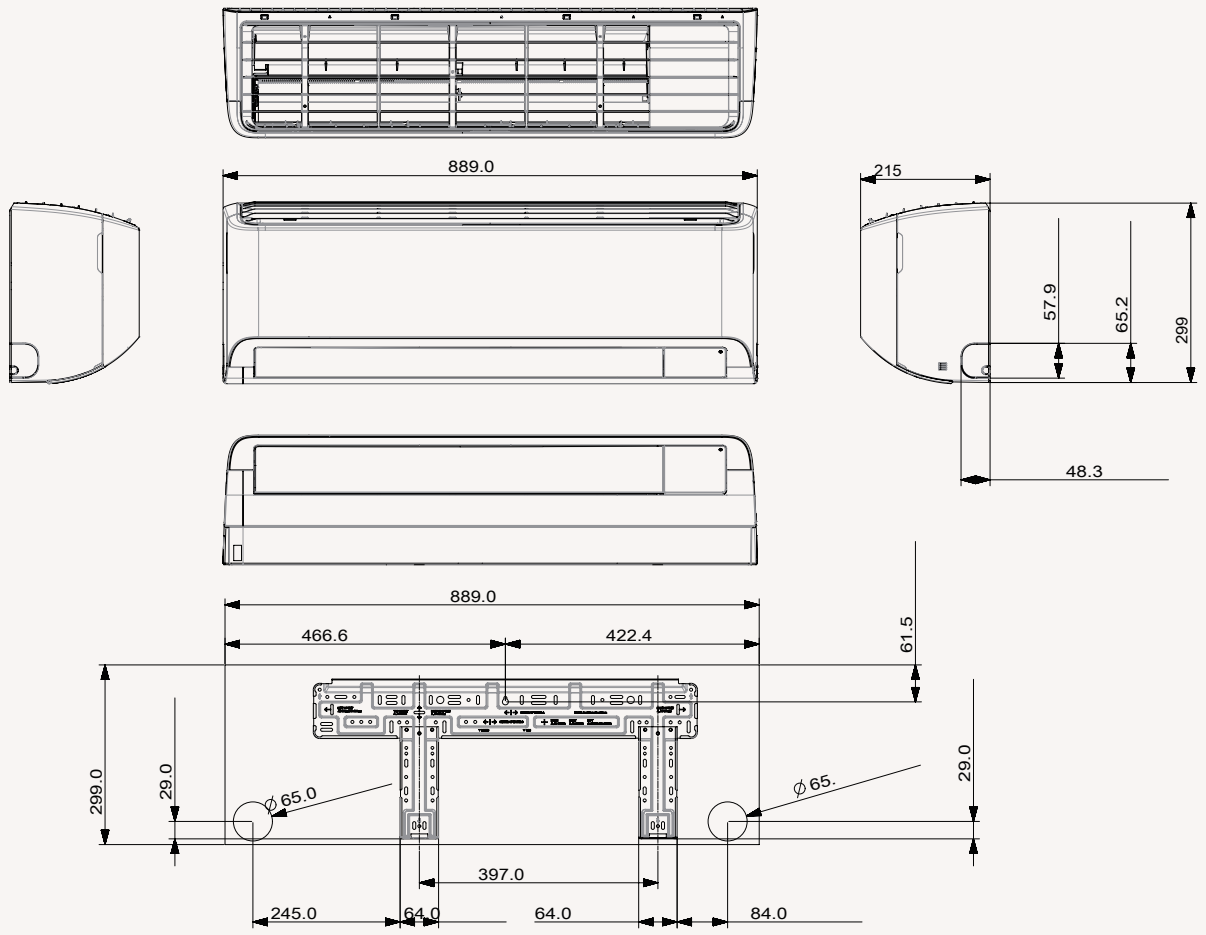

| NO | Name | Description | |
|---|---|---|---|
| | | 12 kW | 16 kW |
| 1 | Refrigerant liquid pipe | Φ9.52 (3/8") | |
| 2 | Refrigerant gas pipe for air | Φ15.88 (5/8") | Φ15.88 (5/8") |
| 3 | Refrigerant gas pipe for water | Φ15.88 (5/8") | Φ15.88 (5/8") |
| 4 | Knockout hole for pipe intake | Front / Side / Rear / Bottom | Front / Side / Rear / Bottom |
| 5 | Power wiring conduits | Front / Side / Rear, Φ34 (1-3/8") | Front / Side / Rear, Φ34 (1-3/8") |
| 6 | Communication wiring conduits | Front / Side / Rear, Φ22 (7/8") | Front / Side / Rear, Φ22 (7/8") |
| 7 | Drain holes | Connect with the provided drain plug. | Connect with the provided drain plug. |

# Dimensional Drawings

## WindFree™ Deluxe

AE022/028/036TNXDEH/EU

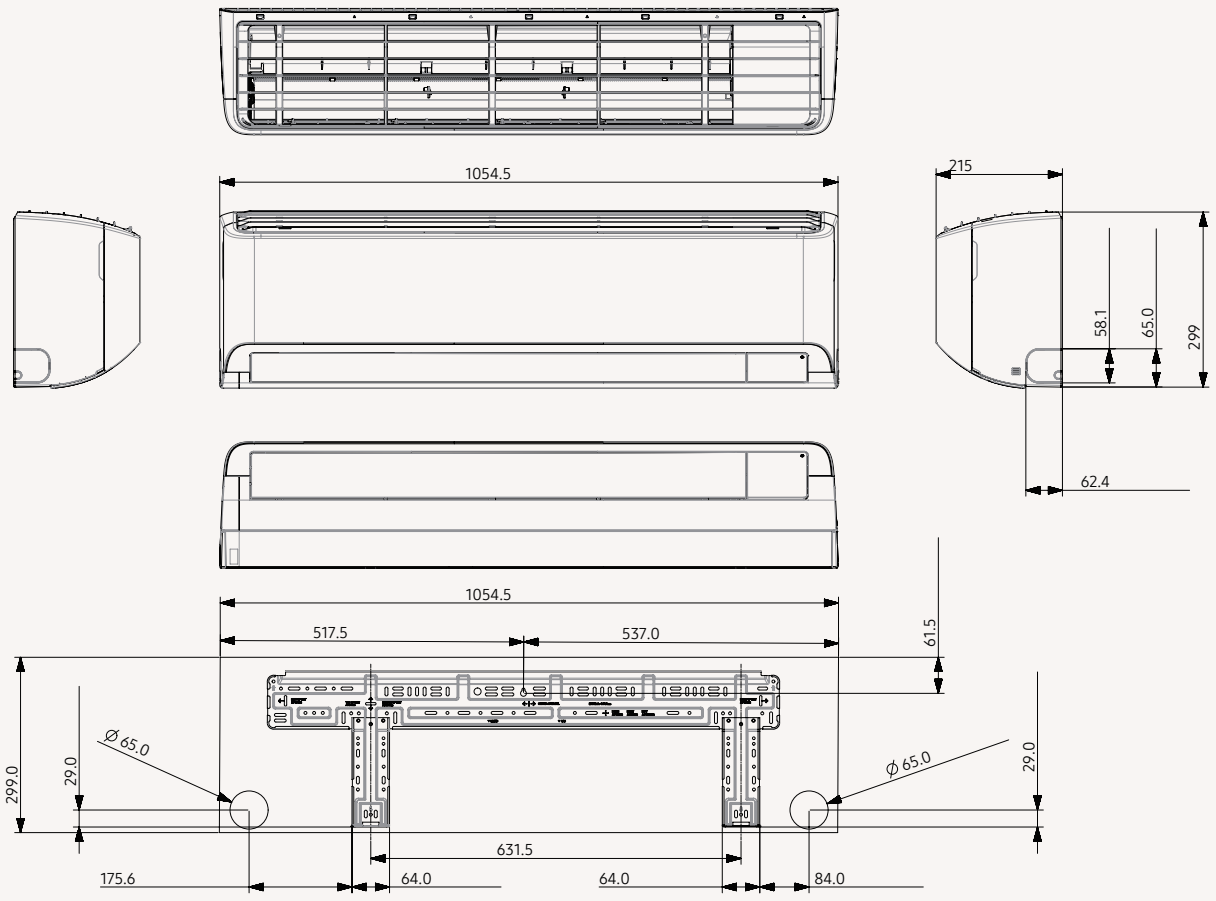
Units: mm



## WindFree™ Deluxe

AE056/071TNXDEH/EU

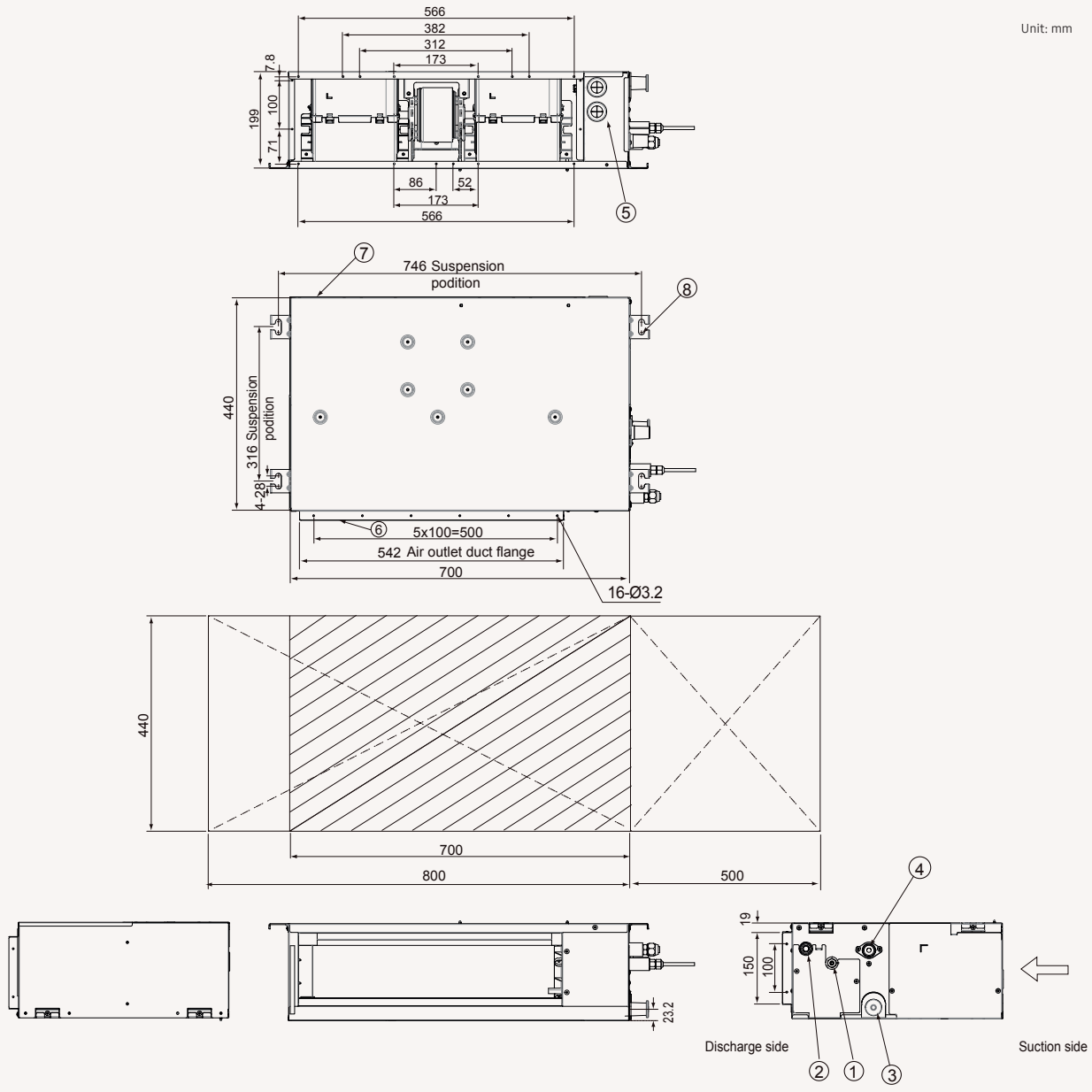
Units: mm



# Dimensional Drawings

## TDM Plus Slim Duct

AE022/028/036ANLDEH/EU

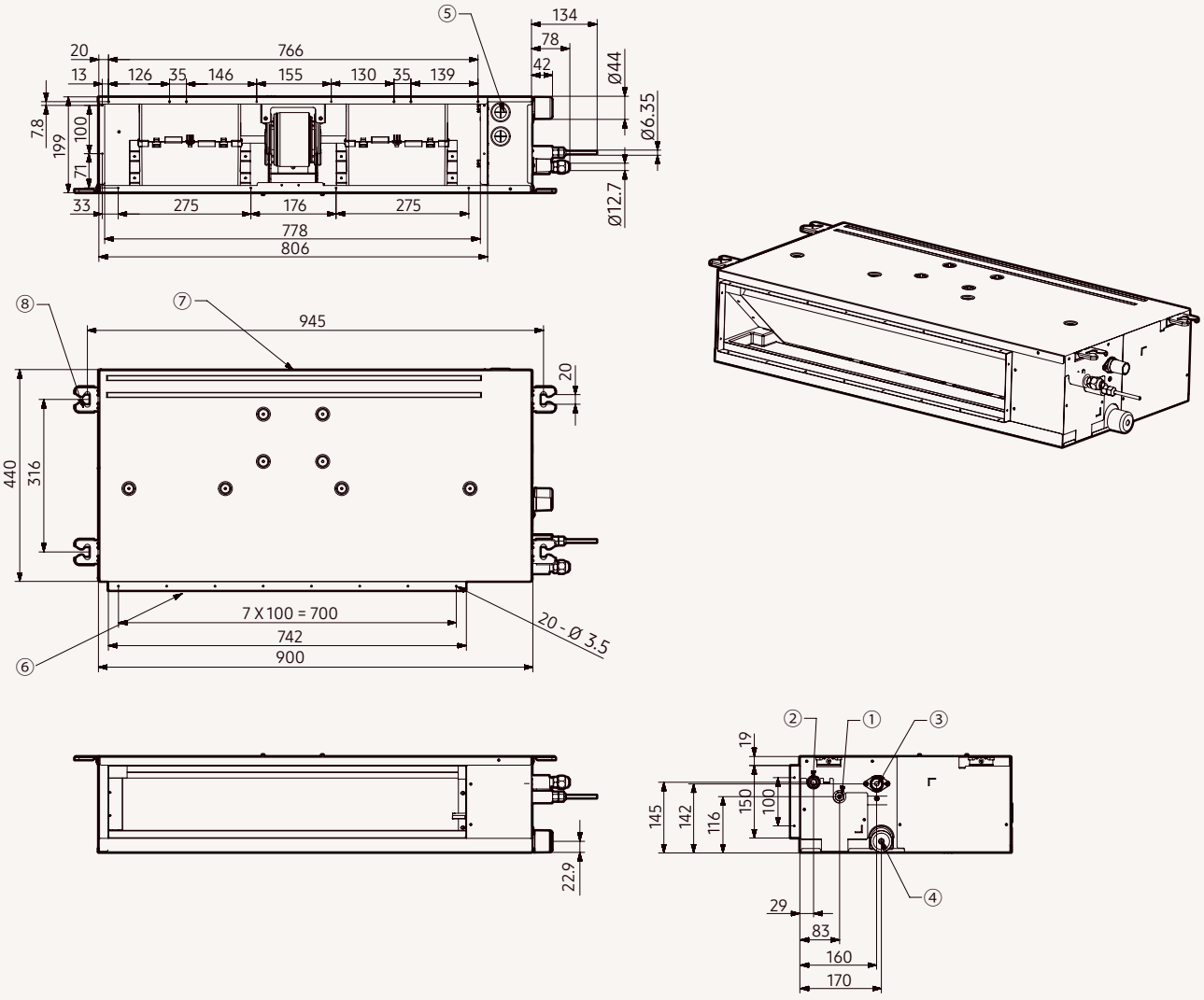



| NO | Name | Description |
|---|---|---|
| 1 | Liquid pipe connection | Φ6.35 (1/4") |
| 2 | Gas pipe connection | Φ12.70 (1/2") |
| 3 | Drain pipe connection without drain pump | VP25 (OD Φ32, ID Φ25) |
| 4 | Drain pipe connection with drain pump | VP25 (OD Φ32, ID Φ25) |
| 5 | Power supply/Communication connection | - |
| 6 | Air discharge grille flange | - |
| 7 | Return air side | - |
| 8 | Hook | Φ9.52 or M10 |

# TDM Plus Slim Duct

AE056ANLDEH/EU

Unit: mm

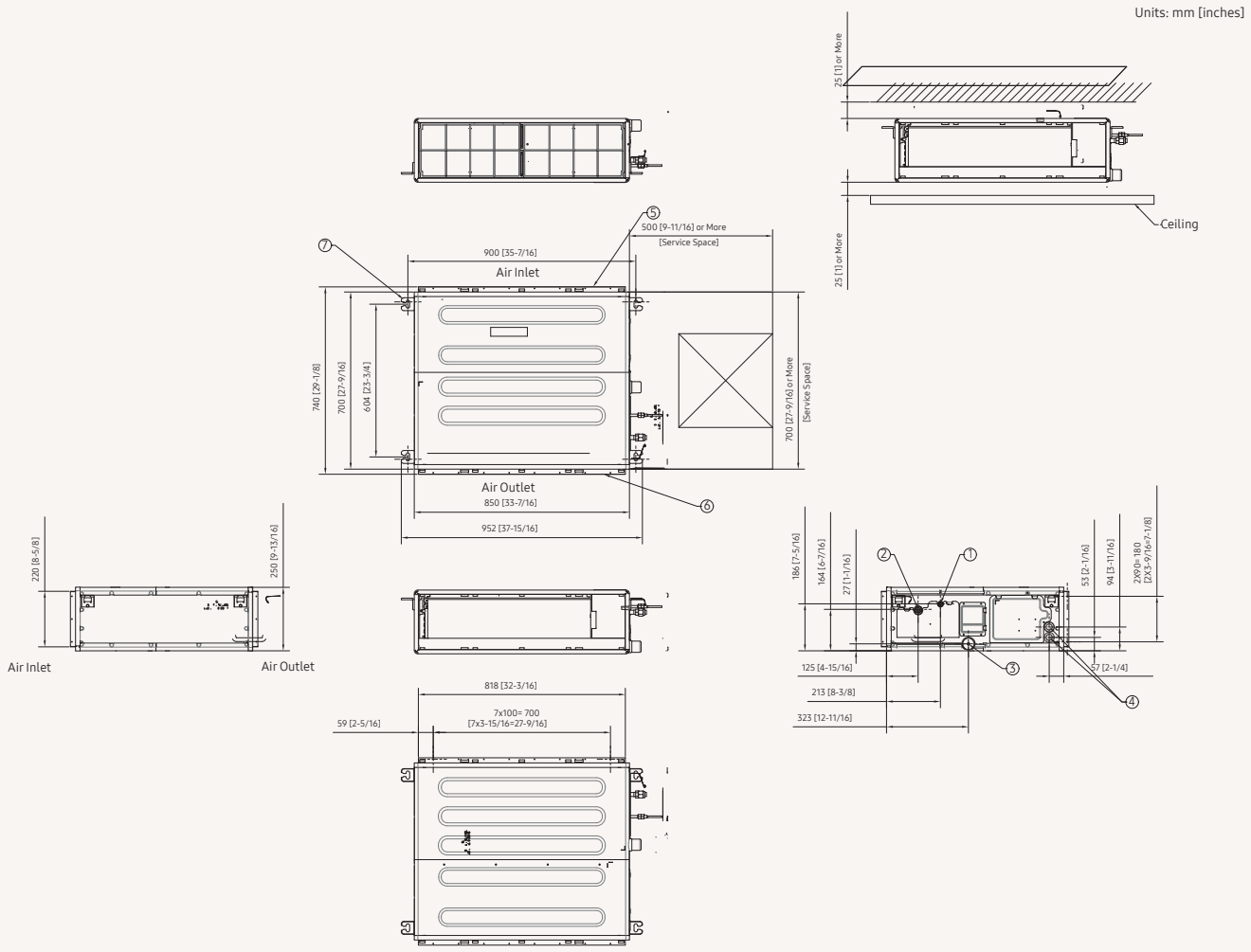



| NO | Name | Description |
|---|---|---|
| 1 | Refrigerant liquid pipe | Φ6.35 (1/4") Flare Connection |
| 2 | Refrigerant gas pipe | Φ12.70 (1/2") Flare Connection |
| 3 | Condensate Drain | VP25(OD Φ32, ID Φ25) |
| 4 | Condensate Drain (Option) | VP25(OD Φ32, ID Φ25) |
| 5 | Power & Comm. Wiring Conduits | - |
| 6 | Supply Air Flange | - |
| 7 | Return Air Flange | - |
| 8 | Hook | - |

# Dimensional Drawings

## TDM Plus MSP Duct

AE036/056BNMPEH/EU



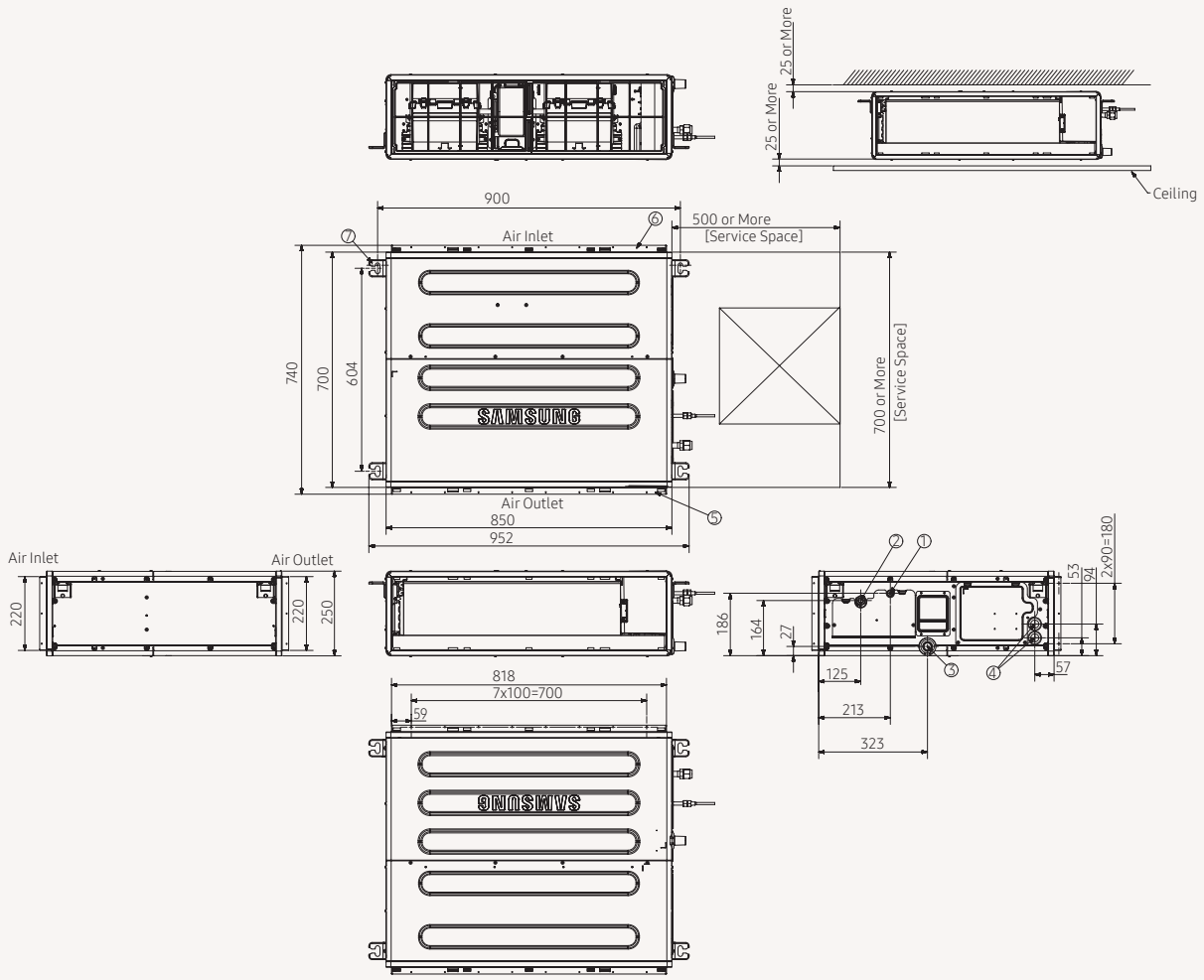

| NO | Name | Description |
|---|---|---|
| 1 | Liquid pipe connection | |
| 2 | Gas pipe connection | |
| 3 | Drain hose | VP25 (OD 32, ID 25) |
| 4 | Power & communication conduits | |
| 5 | Air inlet | |
| 6 | Air outlet | |
| 7 | Hook | Use M8~M10 bolt (4ea) |

# Dimensional Drawings

## TDM Plus MSP Duct

AE071MNMPEH/EU

Units: mm

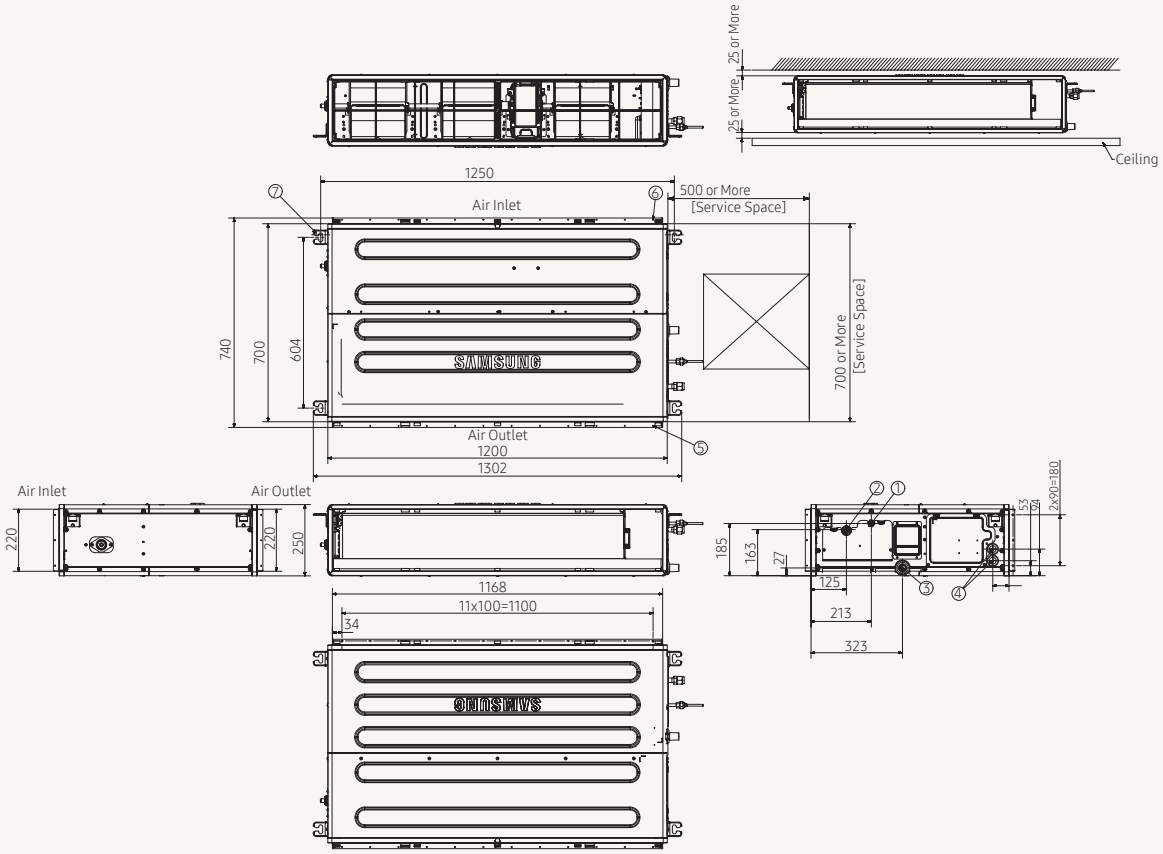



| NO | Name | Description |
|---|---|---|
| 1 | Liquid pipe connection | Φ9.52 (3/8") |
| 2 | Gas pipe connection | Φ15.88 (5/8") |
| 3 | Drain pipe connection | VP-25( OD 32, ID 25) |
| 4 | Power supply & Communication wiring conduit | - |
| 5 | Air suction flange | - |
| 6 | Air discharge flange | - |
| 7 | Hook | Use M8~M10 bolt (4ea) |

# TDM Plus MSP Duct

## AE090MNMPEH/EU

Units: mm



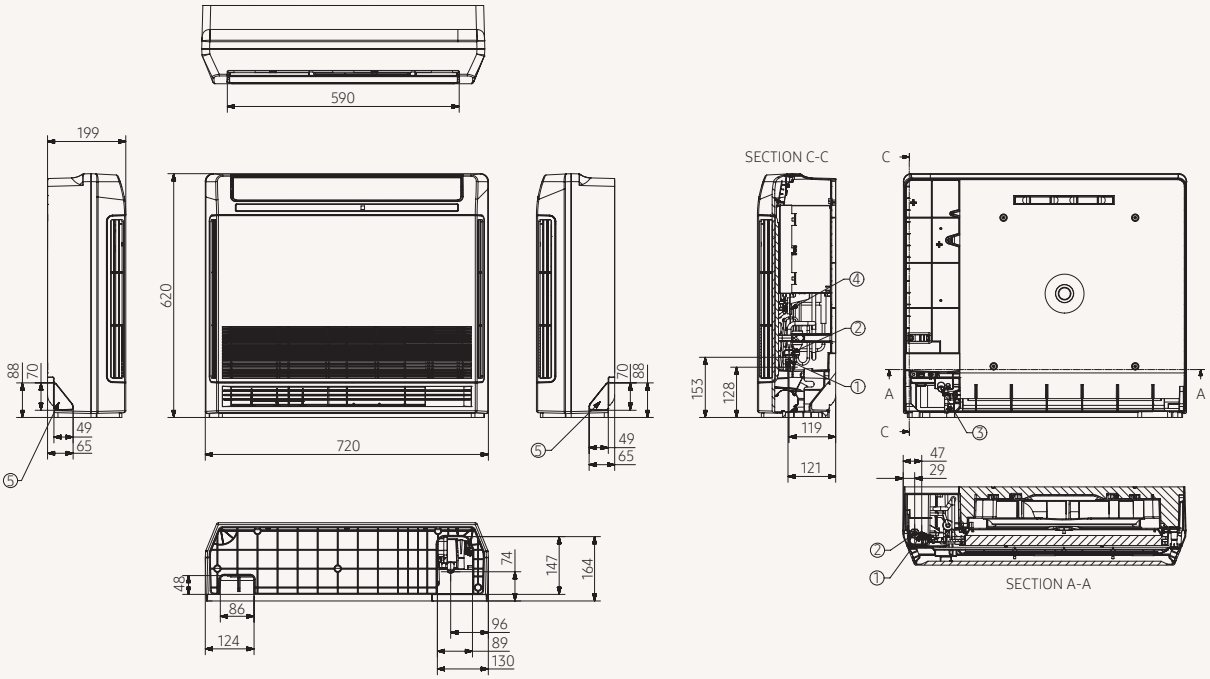

| NO | Name | Description |
|---|---|---|
| 1 | Liquid pipe connection | Φ9.52 (3/8") |
| 2 | Gas pipe connection | Φ15.88 (5/8") |
| 3 | Drain pipe connection | VP-25 (OD 32, ID 25) |
| 4 | Power supply & Communication wiring conduit | - |
| 5 | Air suction flange | - |
| 6 | Air discharge flange | - |
| 7 | Hook | Use M8~M10 bolt (4ea) |

# Dimensional Drawings

## TDM Plus Console

AE022/028/036/056MNJDEH/EU

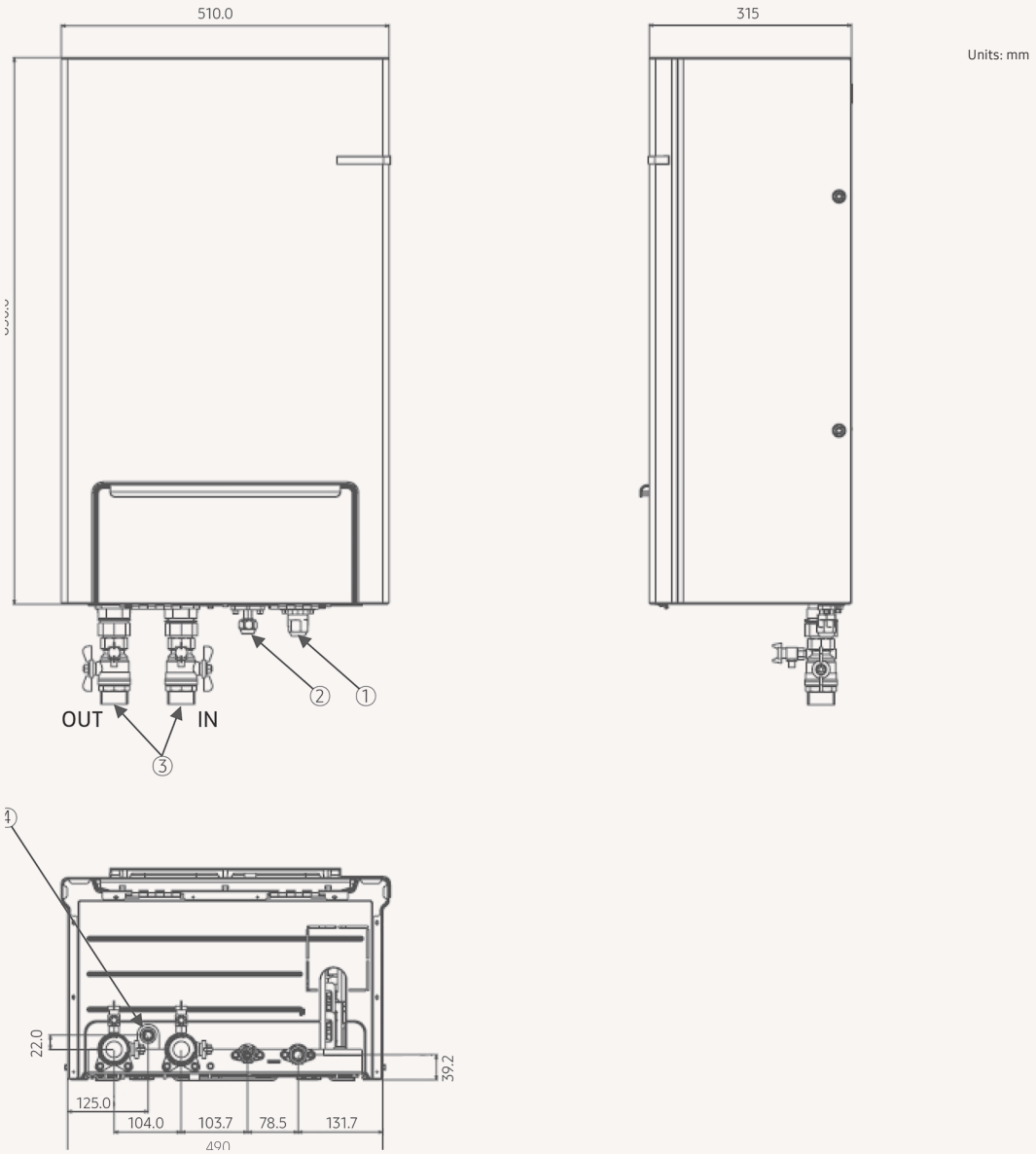
Units: mm




| NO | Name | Description |
|---|---|---|
| 1 | Liquid pipe connection | Φ6.35 (1/4") |
| 2 | Gas pipe connection | Φ12.7 (1/2") |
| 3 | Drain pipe connection | ID 18mm (11/16") Hose |
| 4 | Power supply & Communication wiring conduit | - |
| 5 | Knockout hole for drain hose | - |

# Wall-Mounted Hydro Unit

AE090/160BNYD*H/EU




| NO | Name | Description |
|---|---|---|
| 1 | Gas Ref. Pipe | Φ 6.35 (1/4") (9kW), Φ 9.52 (3/8") (16kW) |
| 2 | Liquid Ref. Pipe | Φ 15.88 (5/8") |
| 3 | Water Pipe (Inlet/Outlet) | BSPP male 11/4 |
| 4 | Drain Hose Connector | |

# Renovation Solutions

# Specifications

## EHS Mono R290

- Production of hot water to a maximum temperature of 75 °C
- Premium Design
- Ideal for renovation applications
- Generates a low noise level (35dB)
- 100% Heating Capacity at -10°C
- SmartThings compatible.
- Low Ambient temperature operation
- Easy installation and maintainence
- New Climatehub Mono embedded with Wifi module





| | Indoor Unit<br>Outdoor Unit<br>Controller | | | | AE200CNWMEG<br>AE050CXYDEK/EU<br>MIM-E03CN / MIM-E03EN** | AE200CNWMEG<br>AE080CXYDEK/EU<br>MIM-E03CN / MIM-E03EN** | AE200CNWMEG<br>AE120CXYDEK/EU<br>MIM-E03CN / MIM-E03EN** | AE200CNWMEG<br>AE160CXYDEK/EU<br>MIM-E03CN / MIM-E03EN** |
|---|---|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1]/ A7/W55[2] | kW | 5.0/5.0 | 8.0/8.0 | 12.0/12.0 | 16.0/16.0 |
| | | | Cooling A35/W18[1] | kW | 5.0 | 8.0 | 12.0 | 14.0 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 1.00/ 1.61 | 1.63/ 2.67 | 2.50/4.0 | 3.55/5.52 |
| | | | Cooling A35/W18[1] | kW | 1.280 | 2.050 | 3.000 | 3.680 |
| | | COP (Nominal Heating) A7/W35[1] | | W/W | 5.00/3.10 | 4.91/3.00 | 4.80/3.00 | 4.51/2.90 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 3.91 | 3.90 | 4.00 | 3.80 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 5.00/3.60 | 4.85/3.55 | 4.90/3.65 | 4.70/3.55 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 201 / 141 | 191 / 139 | 193 /143 | 185 / 139 |
| | | Seasonal Space Heating Eff. Class* LWT 35°C/ 55°C | | | A+++ / A++ | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| | | Current | MCA | A | 16.1 | 26.0 | 32.0 | 32.0 |
| | | | MFA | A | 17.6 | 28.6 | 35.2 | 35.2 |
| | | Water Flow Rate | Low / Medium temperature | EA | 14.4/ 7.0/48.0 | 23.1/7.0/48.0 | 34.6/7.0/58.0 | 46.2/7.0/58.0 |
| | | Leaving Water Temperature[3] | Heating | °C | 15-75 | 15-75 | 15-75 | 15-75 |
| | | | Cooling | °C | 5-25 | 5-25 | 5-25 | 5-25 |
| | Functions | Smart Grid Ready/PV Enabled | | - | • | • | • | • |
| | | 3-Step Quiet Mode | | - | • | • | • | • |
| | | 2-zone Control | | - | • | • | • | • |
| Tank Integrated Hydro Unit | Power Supply | | | Φ, #, V, Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz |
| | Water Tank Volume | | | litres | 200 | 200 | 260 | 260 |
| | Declared Load Profile | | | L/XL | L | L | L | L |
| | Average water heating efficiency ηwh | | | ETA% | 115% | 115% | 115% | 115% |
| | Average Energy Efficiency Class | | | - | A+ | A+ | A | A |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 26 | 26 | 30 | 30 |
| | | | Cooling Std | | 26 | 26 | 30 | 30 |
| | | Sound Power | Heating Std | dB(A) | 40 | 40 | 44 | 44 |
| | Heater | Back-up heater Capacity | Default (Option) | kW | 2 (4/6) | 2 (4/6) | 2 (4/6) | 2 (4/6) |
| | Piping | Water Pipe (Space Heating) | Inlet/Outlet | Φ, mm | 28/28 | 28/28 | 28/28 | 28/28 |
| | | Water pipe (DHW) | Inlet/Outlet | Φ, mm | 22/22 | 22/22 | 22/22 | 22/22 |
| | Dimensions | Net Weight | | kg | 130 | 130 | 130 | 130 |
| | | Net Dimensions (WxHxD) | | mm | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| Outdoor Unit | Power Supply | | | Φ, V, Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz |
| | Compressor | Type | | - | Twin Rotary | Twin Rotary | Scroll | Scroll |
| | Base Heater | Capacity | | kW | 0.15 | 0.15 | 0.15 | 0.15 |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 41 | 45 | 47 | 51 |
| | | | Cooling Std | dB(A) | 41 | 45 | 47 | 51 |
| | | Sound Power | Heating Std | dB(A) | 55 | 59 | 60 | 65 |
| | Dimensions | Net Weight | | kg | 86 | 98 | 140 | 140 |
| | | Net Dimensions (WxHxD) | | mm | 998 x 850 x 500 | 998 x 850 x 500 | 1270 x 1018 x 530 | 1270 x 1018 x 530 |
| | Refrigerant | Type | | | | | | R290 (GWP=3) |
| | | Factory Charging | | $tCO_2e$ | 0.002 | 0.003 | 0.004 | 0.004 |
| | | | | kg | 0.63 | 0.87 | 1.25 | 1.25 |
| | Piping | Water Pipe (Space Heating) | Inlet/Outlet | Φ, mm | BSPP male 1"/BSPP male 1" | BSPP male 1"/BSPP male 1" | BSPP male 1"/BSPP male 1" | BSPP male 1"/BSPP male 1" |
| Operation | Ambient Temperature | | Heating | °C | -25~35 | -25~35 | -25~35 | -25~35 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -25~43 | -25~43 | -25~43 | -25~43 |

## Accessories





| Touch Controller | Touch Controller | Mono Control Kit | DMS2.5 | Wi-Fi Kit | External Room Sensor | Backup Heater (4/6kW) |
|---|---|---|---|---|---|---|
| MWR-WW10*N | MCM-A300N | MIM-E03CN/MIM-E03EN** | MIM-D01AN | MIM-H04EN | MRW-TA | MHC-*00FE |



| AE260CNWMGG<br>AE080CXYDGK/EU<br>MIM-E03CN / MIM-E03EN** | AE260CNWMGG<br>AE120CXYDGK/EU<br>MIM-E03CN / MIM-E03EN** | AE260CNWMGG<br>AE160CXYDGK/EU<br>MIM-E03CN / MIM-E03EN** |
|---|---|---|
| 8.0/8.0 | 12.0/12.0 | 16.0/16.0 |
| 8.0 | 12.0 | 14.0 |
| 1.63/ 2.67 | 2.50/ 4.0 | 3.55/ 5.52 |
| 2.050 | 3.000 | 3.680 |
| 4.91/3.00 | 4.80/3.00 | 4.51/2.90 |
| 3.90 | 4.00 | 3.80 |
| 4.85/3.55 | 4.90/3.65 | 4.70/3.55 |
| 191 / 139 | 193 / 143 | 185 / 139 |
| A+++ / A++ | A+++ / A++ | A+++ / A++ |
| 16.1 | 16.1 | 16.1 |
| 17.7 | 17.7 | 17.7 |
| 23.1/7.0/48.0 | 34.6/7.0/58.0 | 46.2/7.0/58.0 |
| 15-75 | 15-75 | 15-75 |
| 5-25 | 5-25 | 5-25 |
| • | • | • |
| • | • | • |
| • | • | • |
| "3Φ, 4Line, 380~415V, 50Hz<br>1Φ, 2Line, 220~240V, 50Hz " | "3Φ, 4Line, 380~415V, 50Hz<br>1Φ, 2Line, 220~240V, 50Hz " | "3Φ, 4Line, 380~415V, 50Hz<br>1Φ, 2Line, 220~240V, 50Hz " |
| 260 | 260 | 260 |
| XL | XL | XL |
| 103% | 103% | 103% |
| A+ | A | A |
| 26 | 30 | 30 |
| 26 | 30 | 30 |
| 40 | 44 | 44 |
| 2 (4/6) | 2 (4/6) | 2 (4/6) |
| 28/28 | 28/28 | 28/28 |
| 22/22 | 22/22 | 22/22 |
| 140 | 140 | 140 |
| 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| 3Φ, 4Line, 380~415V, 50Hz | 3Φ, 4Line, 380~415V, 50Hz | 3Φ, 4Line, 380~415V, 50Hz |
| Twin Rotary | Scroll | Scroll |
| 0.15 | 0.15 | 0.15 |
| 45 | 47 | 51 |
| 45 | 47 | 51 |
| 59 | 60 | 65 |
| 98 | 140 | 140 |
| 998 x 850 x 500 | 1270 x 1018 x 530 | 1270 x 1018 x 530 |
| | | |
| 0.003 | 0.004 | 0.004 |
| 0.87 | 1.6 | 1.6 |
| BSPP male 1"/BSPP male 1" | BSPP male 1"/BSPP male 1" | BSPP male 1"/BSPP male 1" |
| -25~35 | -25~35 | -25~35 |
| 10~46 | 10~46 | 10~46 |
| -25~43 | -25~43 | -25~43 |

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

*A+++ energy label is available according to EU No. 811/2013 label classification 2019, on a scale from D to A+++

** MIM-E03EN has additional features: Smart Grid ready/ PV Enabled/2-Zone control

[1] A2W Condition: (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition: (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional drawings

## EHS Mono R290

AE050CXYDEK/EU, 080CXYD*K/EU

Units: mm

## AE050CXYDEK/EU, 080CXYD*K/EU

Units: mm

# Specifications

## EHS Mono HT Quiet R32

- Production of hot water to a maximum temperature of 70 °C
- Premium Design
- Ideal for renovation applications
- Generates a low noise level (35 dB(A))
- 100% Heating Capacity at -25 °C
- SmartThings compatible with optional Wi-Fi kit
- Low Ambient temperature operation
- Easy installation and maintenance





| | Indoor Unit<br>Outdoor Unit<br>Controller | | | | AE200RNWMEG<br>AE080BXYDEG/EU<br>MIM-E03CN / MIM-E03EN** | AE200RNWMEG<br>AE120BXYDEG/EU<br>MIM-E03CN / MIM-E03EN** | AE200RNWMEG<br>AE140BXYDEG/EU<br>MIM-E03CN / MIM-E03EN** | AE260RNWMEG<br>AE080BXYDEG/EU<br>MIM-E03CN / MIM-E03EN** |
|---|---|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1]/ A7/W55[2] | kW | 8.0/8.0 | 12.0/12.0 | 14.0/14.0 | 8.0/8.0 |
| | | | Cooling A35/W18[1] | kW | 8.0 | 12.0 | 14.0 | 8.0 |
| | | Power Input (Nominal) | Heating A7/W35[1] / A7/W55[2] | kW | 1.600 | 2.353 | 2.772 | 1.600 |
| | | | Cooling A35/W18[1] | kW | 1.702 | 2.637 | 3.146 | 1.702 |
| | | COP (Nominal Heating) A7/W35[1] | | W/W | 5.00/3.20 | 5.11/3.40 | 5.05/3.35 | 5.00/3.20 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4.71 | 4.55 | 4.46 | 4.71 |
| | | SCOP LWT 35°C/ 55°C | | W/W | 4.64/3.38 | 4.90/3.78 | 4.83/3.75 | 4.64/3.38 |
| | | Seasonal space heating enr.efficiency ηs LWT 35°C/ 55°C | | ETA% | 183/132 | 193/148 | 190/147 | 183/132 |
| | | Seasonal Space Heating Eff. Class* LWT 35°C/ 55°C | | | A+++ / A++ | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| | | Current | MCA | A | 26.0 | 32.0 | 32.0 | 26.0 |
| | | | MFA | A | 28.6 | 35.2 | 35.2 | 28.6 |
| | | Water Flow Rate | Low / Medium temperature | EA | 7/48 | 7/58 | 7/58 | 7/48 |
| | | Leaving Water Temperature[3] | Heating | °C | 15~70 | 15~70 | 15~70 | 15~70 |
| | | | Cooling | °C | 5~25 | 5~25 | 5~25 | 5~25 |
| | Functions | Smart Grid Ready/PV Enabled | | - | • | • | • | • |
| | | 3-Step Quiet Mode | | - | • | • | • | • |
| | | 2-zone Control | | - | • | • | • | • |
| Tank Integrated Hydro Unit | 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 |
| | Water Tank Volume | | | litres | 200 | 200 | 200 | 260 |
| | Declared Load Profile | | | L/XL | L | L | L | XL |
| | Average water heating efficiency ηwh | | | ETA% | 115 | 110 | 110 | 123 |
| | Average Energy Efficiency Class | | | - | A | A | A | A |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 26 | 30 | 30 | 26 |
| | | | Cooling Std | | 26 | 30 | 30 | 26 |
| | | Sound Power | Heating Std | dB(A) | 40 | 44 | 44 | 40 |
| | Heater | Back-up heater Capacity | Default (Option) | kW | 2 (4/6) | 2 (4/6) | 2 (4/6) | 2 (4/6) |
| | Piping | Water Pipe (Space Heating) | Inlet/Outlet | Φ, mm | 28/28 | 28/28 | 28/28 | 28/28 |
| | | Water pipe (DHW) | Inlet/Outlet | Φ, mm | 22/22 | 22/22 | 22/22 | 22/22 |
| | Dimensions | Net Weight | | kg | 130.0 | 130.0 | 130.0 | 140.0 |
| | | Net Dimensions (WxHxD) | | mm | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| Outdoor Unit | Power Supply | | | Φ, V, Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz |
| | Compressor | Type | | - | Scroll | Scroll | Scroll | Scroll |
| | Base Heater | Capacity | | kW | 0.15 | 0.15 | 0.15 | 0.15 |
| | Sound | Sound Pressure[4] | Heating Std | dB(A) | 42 | 46 | 47 | 42 |
| | | | Cooling Std | dB(A) | 42 | 46 | 47 | 42 |
| | | Sound Power | Heating Std | dB(A) | 56 | 59 | 60 | 56 |
| | Dimensions | Net Weight | | kg | 131.2 | 141.2 | 141.2 | 131.2 |
| | | Net Dimensions (WxHxD) | | mm | 1270 x 1018 x 530 | 1270 x 1018 x 530 | 1270 x 1018 x 530 | 1270 x 1018 x 530 |
| | Refrigerant | Type | | | R32 (Fluorinated greenhouse gas, GWP=675) | | | |
| | | Factory Charging | | $tCO_2e$ | 1.82 | 2.23 | 2.23 | 1.82 |
| | | | | kg | 2.7 | 3.3 | 3.3 | 2.7 |
| | Piping | Water Pipe (Space Heating) | Inlet/Outlet | Φ, mm | 28/28 | 28/28 | 28/28 | 28/28 |
| Operation | Ambient Temperature | | Heating | °C | -30~43 | -30~43 | -30~43 | -30~43 |
| | | | Cooling | °C | 10~46 | 10~46 | 10~46 | 10~46 |
| | | | DHW | °C | -30~43 | -30~43 | -30~43 | -30~43 |

## Accessories





| Touch Controller | Touch Controller | Mono Control Kit | DMS2.5 | Wi-Fi Kit | External Room Sensor | Backup Heater (4/6kW) |
|---|---|---|---|---|---|---|
| MWR-WW10*N | MCM-A300N | MIM-E03CN/MIM-E03EN** | MIM-D01AN | MIM-H04EN | MRW-TA | MHC-*00FE |





| AE260RNWMEG<br>AE120BXYDEG/EU<br>MIM-E03CN / MIM-E03EN** | AE260RNWMEG<br>AE140BXYDEG/EU<br>MIM-E03CN / MIM-E03EN** | AE260RNWMGG<br>AE080BXYDGG/EU<br>MIM-E03CN / MIM-E03EN** | AE260RNWMGG<br>AE120BXYDGG/EU<br>MIM-E03CN / MIM-E03EN** | AE260RNWMGG<br>AE140BXYDGG/EU<br>MIM-E03CN / MIM-E03EN** |
|---|---|---|---|---|
| 12.0/12.0 | 14.0/14.0 | 8.0/8.0 | 12.0/12.0 | 14.0/14.0 |
| 12.0 | 14.0 | 8.0 | 12.0 | 14.0 |
| 2.353 | 2.772 | 1.600 | 2.353 | 2.772 |
| 2.637 | 3.146 | 1.702 | 2.637 | 3.146 |
| 5.11/3.40 | 5.05/3.35 | 5.00/3.20 | 5.11/3.40 | 5.05/3.35 |
| 4.55 | 4.46 | 4.71 | 4.55 | 4.46 |
| 4.90/3.78 | 4.83/3.75 | 4.64/3.38 | 4.90/3.78 | 4.83/3.75 |
| 193/148 | 190/147 | 183/132 | 193/148 | 190/147 |
| A+++ / A++ | A+++ / A++ | A+++ / A++ | A+++ / A++ | A+++ / A++ |
| 32.0 | 32.0 | 16.1 | 16.1 | 16.1 |
| 35.2 | 35.2 | 17.7 | 17.7 | 17.7 |
| 7/58 | 7/58 | 7/48 | 7/58 | 7/58 |
| 15~70 | 15~70 | 15~70 | 15~70 | 15~70 |
| 5~25 | 5~25 | 5~25 | 5~25 | 5~25 |
| • | • | • | • | • |
| • | • | • | • | • |
| • | • | • | • | • |
| 1Φ, 2, 220~240 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz |
| 260 | 260 | 260 | 260 | 260 |
| XL | XL | XL | XL | XL |
| 117 | 117 | 123 | 117 | 117 |
| A | A | A | A | A |
| 30 | 30 | 26 | 30 | 30 |
| 30 | 30 | 26 | 30 | 30 |
| 44 | 44 | 40 | 44 | 44 |
| 2 (4/6) | 2 (4/6) | 6 | 6 | 6 |
| 28/28 | 28/28 | 28/28 | 28/28 | 28/28 |
| 22/22 | 22/22 | 22/22 | 22/22 | 22/22 |
| 140.0 | 140.0 | 140.0 | 140.0 | 140.0 |
| 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 | 595 x 1,800 x 700 |
| 1Φ, 2Line, 220~240V, 50Hz | 1Φ, 2Line, 220~240V, 50Hz | 3Φ, 4Line, 380~415V, 50Hz | 3Φ, 4Line, 380~415V, 50Hz | 3Φ, 4Line, 380~415V, 50Hz |
| Scroll | Scroll | Scroll | Scroll | Scroll |
| 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| 46 | 47 | 42 | 46 | 47 |
| 46 | 47 | 42 | 46 | 47 |
| 59 | 60 | 56 | 59 | 60 |
| 141.2 | 141.2 | 131.2 | 141.2 | 141.2 |
| 1270 x 1018 x 530 | 1270 x 1018 x 530 | 1270 x 1018 x 530 | 1270 x 1018 x 530 | 1270 x 1018 x 530 |
| R32 (Fluorinated greenhouse gas, GWP=675) | | | | |
| 2.23 | 2.23 | 1.82 | 2.23 | 2.23 |
| 3.3 | 3.3 | 2.7 | 3.3 | 3.3 |
| 28/28 | 28/28 | 28/28 | 28/28 | 28/28 |
| -30~43 | -30~43 | -30~43 | -30~43 | -30~43 |
| 10~46 | 10~46 | 10~46 | 10~46 | 10~46 |
| -30~43 | -30~43 | -30~43 | -30~43 | -30~43 |

QUIET MARK

The Quiet Mark is applicable for UK & EU territories only.

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

*A+++ energy label is available according to EU No. 811/2013 label classification 2019, on a scale from D to A+++

** MIM-E03EN has additional features: Smart Grid ready/ PV Enabled/2-Zone control

[1] A2W Condition: (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°C[DB]/6°C[WB]; (Cooling) Water In/Out 23°C/18°C, Outdoor Air 35°C[DB].

[2] A2W Condition: (Heating) Water In/Out 47°C/55°C, Outdoor Air 7°C[DB]/6°C[WB].

[3] 65°C down to +10°C (max. 60°C down to -5°C)

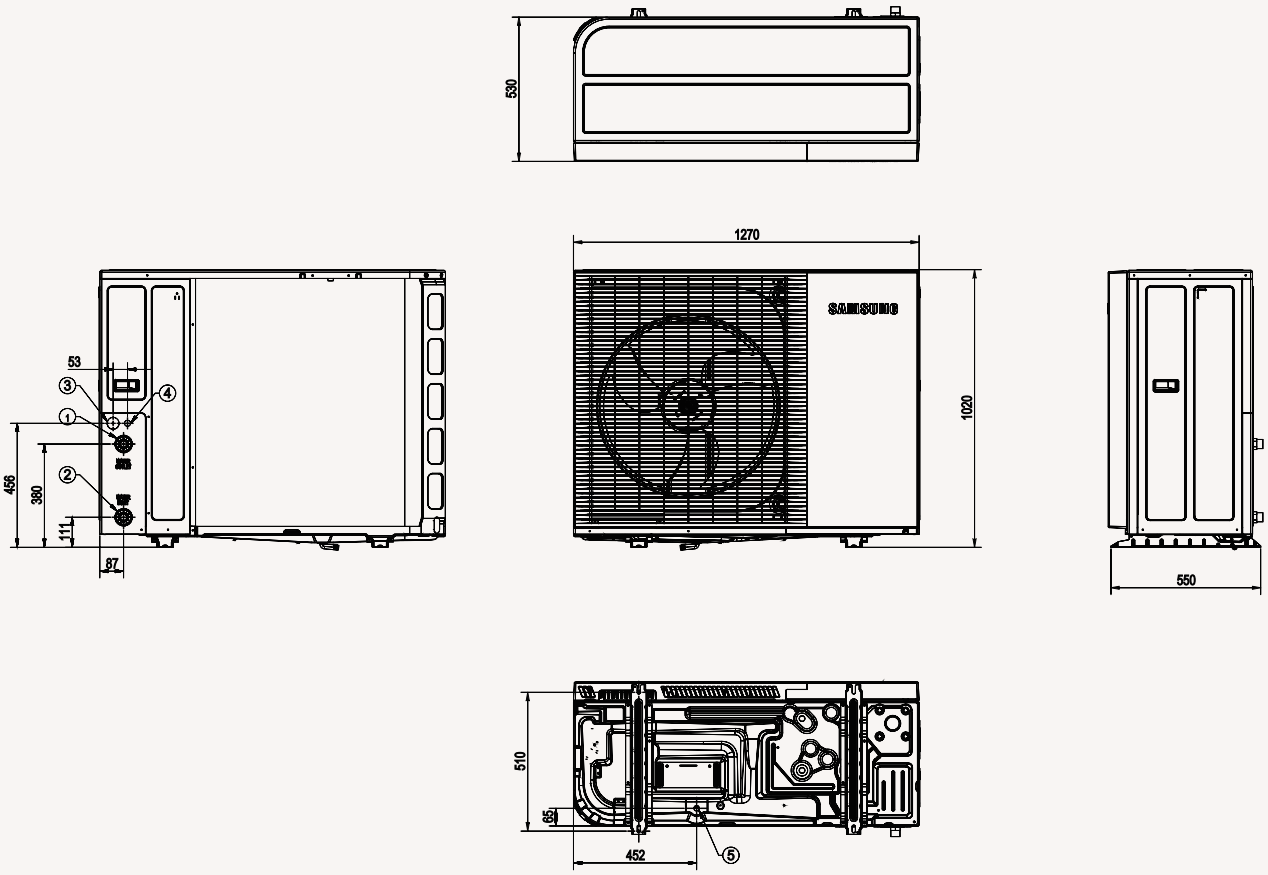
[4] Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment. Sound pressure level may differ depending on operation conditions.

# Dimensional drawings

## EHS Mono HT Quiet

AE080/120/140BXYD*G/EU

Units: mm




| NO | Name | Description |
|---|---|---|
| 1 | Water pipe (Out) | BSPP male 1" |
| 2 | Water pipe (In) | BSPP male 1" |
| 3 | Power wiring conduit | ø44 |
| 4 | Communication wiring conduit | ø22 |
| 5 | Drain holes | Connect with the provided drain plug. |

# Central Heating Solutions

# Specifications

## Hydro Unit

- Production of low temperature hot water and chilled water.
- Hot water production to a maximum temperature of 50 °C (80 °C for 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[1] | kW | 14.0 | 28,0 | 44.8 |
| | | Heating[2] | 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) | | mm² | 2.5 | 2.5 | 2.5 |
| | Transmission Cable | | mm² | 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[3] | | dB(A) | 27 | 28 | 31 |
| 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 | Wired Remote Controller | Wi-Fi Kit (optional) |
|---|---|---|
| MWR-WW00N | MWR-WW10*N | MIM-H04EN |

Specifications may be subject to change without prior notice for product improvement.
[1] Nominal cooling capacities are based on;
- Water temperature: 23°C inlet, 18°C outlet
- Indoor temperature: 27°C DB, 19°C WB
- Outdoor temperature: 35°C DB, 24°C WB

[2] Nominal heating capacities are based on;
- Water temperature: 30°C inlet, 35°C outlet
- Indoor temperature: 20°C DB
- Outdoor temperature: 7°C DB, 6°C WB

[3] 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.



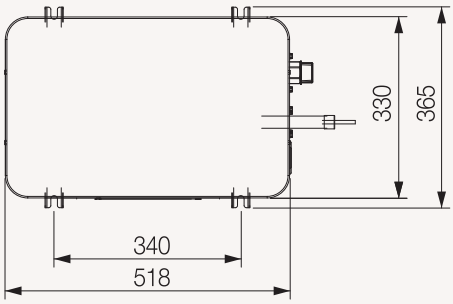

| Model (HT) | | | | AM160TNBFEB/EU | AM160TNBFGB/EU | AM250TNBFEB/EU | AM250TNBFGB/EU |
|---|---|---|---|---|---|---|---|
| Power Supply | | | Φ, #, V, Hz | 1Φ, 2, 220~240 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz | 1Φ, 2, 220~240 V, 50 Hz | 3Φ, 4, 380~415 V, 50 Hz |
| Performance | Capacity (Nominal) | Cooling | 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) | | mm² | 4 | 2.5 | 4 | 2.5 |
| | Transmission Cable | | mm² | 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 / $tCO_2e$ | 2.15/3.07 | 2.15/3.07 | 2.15/3.07 | 2.15/3.07 |
| Sound | Sound Pressure[1] | | 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 |

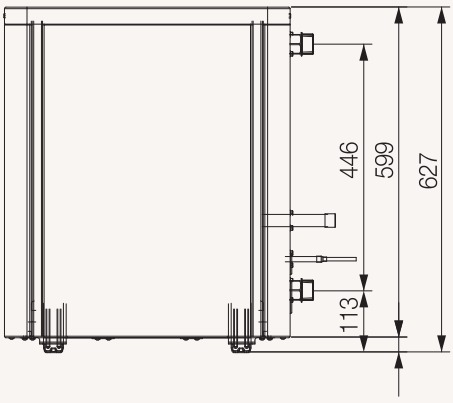
# Dimensional drawings

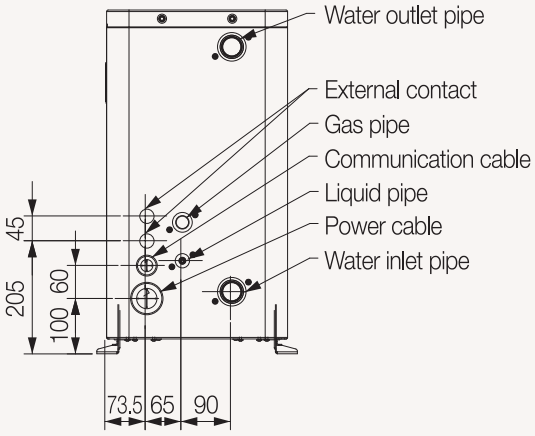
## Hydro Unit HE

AM***FNBDEH/EU

Units: mm



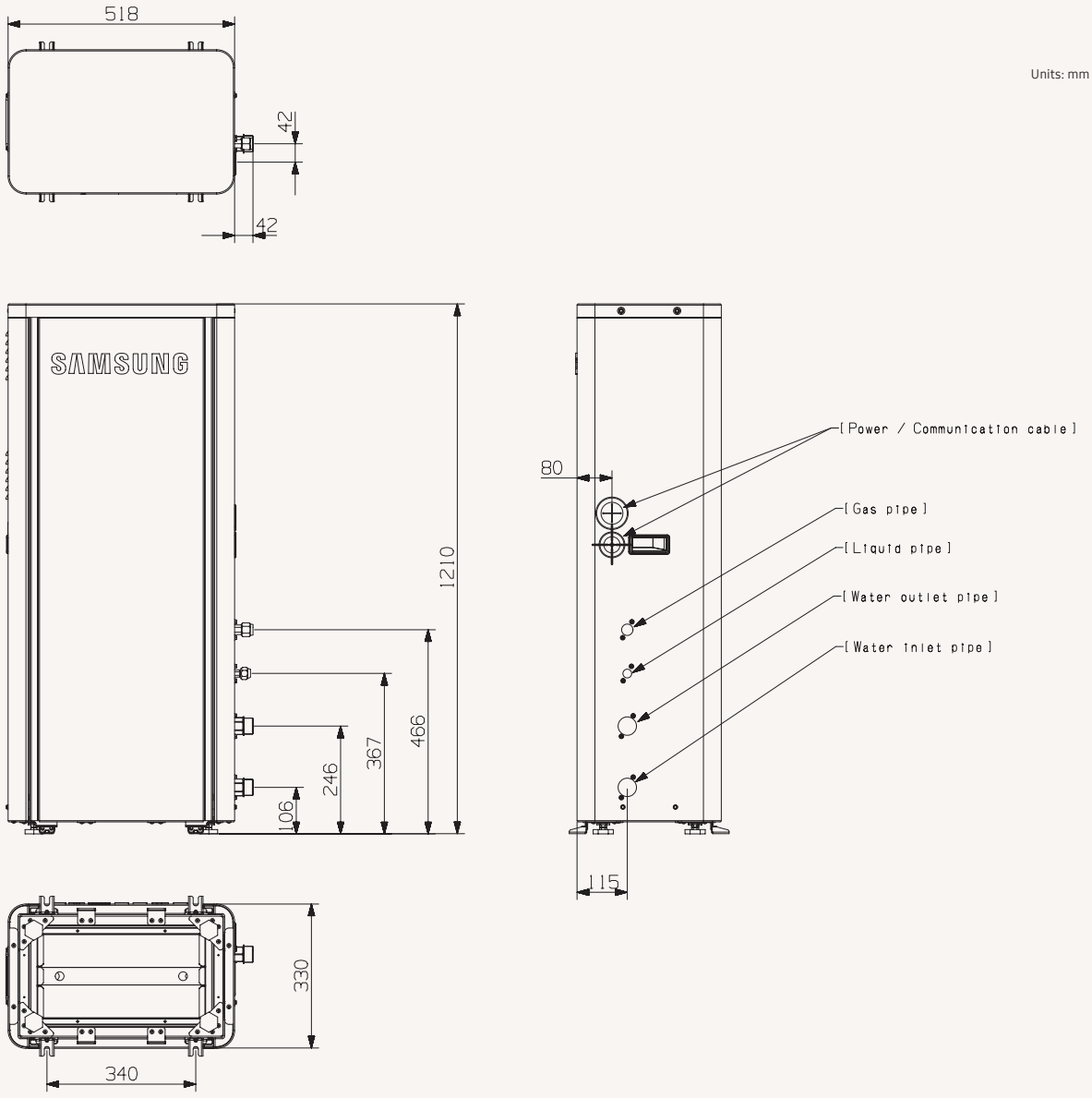




| Name | | Description | | |
|---|---|---|---|---|
| Model name of DVM Hydro unit | | AM160FNBDEH*** | AM320FNBDEH*** | AM500FNBDEH*** |
| Refrigerant side | Liquid pipe | Φ9.52 (3/8") | Φ9.52 (3/8") | Φ12.7 (1/2") |
| | Gas pipe | Φ15.88 (5/8") | Φ22.23 (7/8") | Φ28.58 (1-1/8") |
| Water side | Water inlet/outlet pipe | PT1 (25 A) | PT1 (25 A) | PT1-1/4 (32 A) |

# Hydro Unit HT

AM***TNBF*B/EU

Units: mm




| Name | | Description |
|---|---|---|
| Model name of DVM Hydro unit | | AM***TNBF*B |
| Refrigerant side | Liquid side connection part | Φ9.52 (3/8") |
| | Gas side connection part | Φ15.88 (5/8") |
| Water side connection part | | PT1 (25 A) |

# Controls


16:30
54%
Energy
AI Energy Mode
Net-zero home
Energy usage
Grid
38.46 kWh
4,573 won
Total
50.20 kWh
Devices
31.74 kWh
440
400
200
0
31 Aug
29 Sept
Now
Tier 1
Full-month estimate
Tier 2
Carbon aware
Emissions
Reductions
Monitor
Save
Report

# Line-up

| Category | Product | Model | | Compatibility Table | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | EHS ClimateHub R32 | | EHS with Third Party Tank | | |
| | | | | EHS Mono R32 | EHS Split R32 | EHS Mono R32 | EHS Split R32 | EHS Split R410A |
| Individual Control System | Wireless Remote Controller | AR-EH03E |  | | | | | |
| | | MR-EH00 |  | | | | | |
| | Wired Remote Controller | MWR-WW10N<br>MWR-WW10JN<br>MWR-WW10KN |  | ● | ● | ● | ●* | ●* |
| | | MWR-WW00N |  | | | | | |
| | | MWR-WG00JN<br>MWR-WG00KN |  | | | | | |
| | Touch Controller | MWR-SH11N |  | | | | | |
| | Mono Control Kit | MIM-E03CN/<br>MIM-E03EN** |  | ● | | ● | | |
| Centralised Control System | Touch Controller | MCM-A300N |  | ● | ● | ● | ● | ● |
| | Touch Controller 2.0<br>NEW | MCM-A300BN |  | ● | ● | ● | ● | ● |
| | Wi-Fi Kit 2.0 | MIM-H04EN |  | ● | ● | ● | ● | ● |
| Integrated Control System | DMS 2.5 | MIM-D01AN |  | ● | ● | ● | ● | ● |
| | b.IoT Lite Software | MST-BL1A |  | ● | ● | ● | ● | ● |
| Interface Module & Gateway | External Contact Interface Module | MIM-B14 |  | | | ● | ● | ● |
| | Pulse Interface Module (PIM) | MIM-B16N |  | ● | ● | ● | ● | ● |
| | Modbus Interface module | MIM-B19N |  | ● | ● | ● | ● | ● |
| Others | S-Converter | MIM-C02N |  | ● | ● | ● | ● | ● |
| | External room sensor | MRW-TA |  | ● | ● | ● | ● | ● |
| | Receiver Kit | MRK-A10N |  | | | | | |

Controls

| Compatibility Table | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| TDM Plus R410A | | | | | | | Renovation Solutions | | Central Heating Solutions | |
| TDM Plus ClimateHub R410A | Wall-Mounted Hydro Unit | TDM Plus WindFree™ Deluxe | Slim Duct | MSP Duct | Console | R290 Mono | EHS Mono HT Quiet | DVM S / DVM S2 | DVM Hydro |
| | | ●* | | | | | | ● | |
| | | | optional | optional | ●* | | | | |
| ● | ●* | | | | | ● | ● | | ● |
| | | | | | | | | | ● |
| | | | | | | | | | ● |
| | | ● | ● | ● | ● | | | ● | |
| | | | | | | ● | ● | | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | ● | ● | ● | ● | ● | | | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | | | ● | ● | | | | ● | |

*No need to order separately, controller is already included.
**MIM-E03EN has additional features: Smart Grid ready/PV Enabled/2-Zone control

# Features

## Controls | Individual Control

| Wireless / Wired Remote Controllers | | |
|---|---|---|
| **Wireless Remote Controller**<br>Standard with WindFree™<br><br>AR-EH03E |  | • WindFree™ On/Off<br>• Filter replacement alarm reset<br>• Simple On/Off timer<br>• Indoor unit option code setting<br>• Temperature setting range<br>• Auto/Cool/Dry: 18°C–30°C<br>• Heat: 16°C–30°C<br>• Direct/Indirect function On/Off<br>• Motion Detect Sensor necessary<br>• Net dimensions (W x H x D): 48 x 138 x 24mm |
| **Wired Remote Controller**<br>Standard type for EHS<br><br>MWR-WW10N<br>MWR-WW10JN<br>MWR-WW10KN |  | • Full color 4.3" LCD screen<br>• Easy and Intuitive UI<br>• 2-zone Control<br>• LCD Backlight<br>• Multiple Language support*<br>• IR receiver is included<br>• Daylight Savings Time<br>• °C / °F Convertible<br>• Error list display<br>• Built-in room temperature sensor<br>• SD slot<br>• Net dimensions (W x H x D): 120 x 120 x 19mm<br><br>* Available languages:<br>MWR-WW10N: English, German, French, Italian, Spanish, Polish<br>MWR-WW10JN:English, Portuguese, Dutch, Greek, Czech, Slovak<br>MWR-WW10KN: English, Finnish, Swedish, Norwegian, Danish, Lithuanian. |
| **Wired Remote Controller**<br><br>MWR-WG00JN<br>MWR-WG00KN |  | **Air conditioner/ERV control**<br>• AC control: ON/OFF, operation mode, temperature setting, fan speed, airflow direction<br>• ERV control: ON/OFF, operation mode, fan speed<br>• AC/ERV error monitoring<br>• Filter cleaning alert and reset alert time<br>• Control a maximum of 16 "Indoor unit + ERV" in a group with a single wired controller<br><br>**Energy saving operation**<br>• Upper/lower temperature limit setting<br>• Automatically stops operating when not used for certain period of time as set by user<br><br>**Weekly operation schedule setting**<br>• Weekly operating schedule (A/C only, ERV only, A/C+ERV)<br>• Set desired AC operation mode, temperature and fan speed to operate based on a weekly schedule<br>• Apply schedule exception day<br>• Energy consumption monitoring<br>• Operation time limit<br><br>**User convenience function**<br>• Child lock<br>• Different button permission levels<br>• Room temperature display<br>• Dual set point<br>• Built-in room temperature sensor<br>• Real-time clock: displays current time and day (summer time support)<br>• Multiple Language support*<br>• Service mode support<br>• Indoor unit cycle data monitoring<br>• Indoor unit option code setting and monitoring<br>• Indoor unit address setting and monitoring<br>• SD card slot<br><br>* Available Languages:<br>MWR-WG00JN: English, French, Spanish, Portuguese, Dutch, German<br>MWR-WG00KN: English, Italian, Greek, Czech, Slovak, Polish |
| **Wired Remote Controller**<br><br>MWR-WW00N |  | • Air conditioner/ERV operation setting (Horizontal air flow, WindFree™)<br>• LCD Backlight<br>• Air conditioner/ERV error monitoring<br>• Air conditioner individual blade control<br>• Filter cleaning alert/reset alert time<br>• Air conditioner/ERV interlocking control<br>• Energy saving control<br>• Automatic operation stop function<br>• Weekly operation schedule setting<br>• Button restriction function<br>• Built-in room temperature sensor<br>• Real time clock (Daylight Savings Time)<br>• Control max. 16 indoor units (Air conditioner + ERV) in group with single wired remote controller<br>• Net dimensions (W x H x D): 120 x 124 x 19.5mm |

| | | |
|---|---|---|
| **Wired Remote Controller Touch Simple type**<br><br>MWR-SH11N |  | • Touch screen wired remote controller<br>• LCD Backlight<br>• IR receiver is included<br>• Away function<br>• Quiet mode, Sleep mode<br>• Reset filter cleaning alert indicator<br>• Air conditioner Individual/group control<br>• Operation On/Off timer function<br>• WindFree™/Long horizontal wind<br>• Button locking function<br>• Eliminate Operation Mode function: Auto/Cool/Dry/Fan/Heat mode<br>• Built-in room temperature sensor<br>• °C / °F Convertible<br>• Relative temperature setting function: -3 ~ +3°C setting<br>• Control max. 16 indoor units in group with a single wired remote controller<br>• Net dimensions (W x H x D): 94.2 x 122 x 19.5mm |
| **Mono Control Kit**<br><br>wMIM-E03CN/MIM-E03EN |  | • EHS R32 Mono control Kit<br>• Includes remote controller (MWR-WW10N) and flow sensor<br>• Mounting box with the control printed board assembly<br>• Leaving and return water sensors<br>• Domestic Hot Water sensor<br>• Net Dimensions (WxHxD) mm 290 x 110 x 370 mm<br>• MIM-E03EN has additional features: Smart Grid ready/PV enabled/2-Zone control |

## Controls | Centralised Control

| Centralised Control Systems | | |
|---|---|---|
| |  | |
| **Touch Controller 2.0**<br><br>MCM-A300BN<br>NEW |  | • Large Display: 10.1 inch touch LCD controller<br>• Ease of use: Provides a familiar user experience thanks to the SmartThings UI style<br>• Simple and modern design (Slim bezel 15mm, Resolution (pixels): 1280 x 800 (TFT LCD)<br>• Harmony with interior design, easy to select background image<br>• Controls max. 128 indoor units<br>• Can display energy usage for each device (Hour/Day/Week/Year)<br>• Set detailed schedule according to each zone and indoor unit<br>• History of error helps to check the cause of failure and take quick action<br>• History of energy usage (Function available in RTS Q3'24)<br>• Intuitive control (2D layout view) (Function available in RTS Q3'24)<br>• Remote control by PC/Tablet (In-site) (Function available in RTS Q3'24)<br>• Net dimensions (W x H x D): 245.7 x 164.5 x 30.9mm |
| **Wi-Fi Kit 2.0**<br><br>MIM-H04EN<br><br>Bixby<br>SmartThings |  | • Enhanced Convenience<br>• Voice Control available through a smartphone with Bixby<br>• Connected home with affordable units in every home using SmartThings<br>• Welcome cooling and heating based on Geo-fencing<br>• Individual indoor unit control<br>• Personalized Climate Environment<br>• Preferred automation<br>• Multi-device experience interoperable with smart appliances<br>• Energy Usage Monitoring<br>• Current and daily, weekly or monthly energy usage* of the outdoor unit<br>• Provides ease of installation<br>• Easy set-up possible for up to 16 indoor units at once<br>• Net dimensions (W x H x D): 185 x 130 x 29mm |

*Calculated by Samsung's own algorithm, it cannot be used as a legal basis.

# Features

## Controls | Integrated Control

| Integrated Control Systems | | |
|---|---|---|
| **DMS2.5**<br><br>MIM-D01AN |  | • Built-in web server for PC-independent management and remote access control<br>• Multiple upper-layer control access (S-NET 3, Web-client)<br>• Weekly/Daily schedule control<br>• Power distribution function<br>• Current time management even during power failure (for 24 hours)<br>• Emergency stop function with simple contact interface<br>• Individual/Group control of up to 256 indoor units, AHU and ERV<br>• User editable control logic<br>• Accessible level management.<br>• Dynamic security management<br>• Operation & error history management<br>• Data storage in non-volatile memory & SD memory<br>• Net dimensions (W x H x D): 240 x 255 x 65mm |
| **b.IoT Lite Software**<br><br>MST-BL1A |  | • Integrated building management solution for operational convenience and energy savings<br>• Open platform which enables integrated control such as DVM, 3rd party devices via BACnet interface<br>• Suitable for small & medium sized buildings<br>• Management and remote access control up to 4000 points<br>• Convenient control authority setting up to maximum 100 clients<br>• Easy UI experience, HTML5-based Dashboard with a quick overview of customized data for each user<br>• Operation & error history management: Information on the operation of indoor and outdoor units can be stored in graphs or Excel.<br>• Weekly/Daily schedule control<br>• 2D layout overview provides location-based intuitive monitoring by visualizing the location of DVM on the drawings of each building and floor.<br>• Individual/Group/Zone control<br>• Intelligent Energy Management help to provide more precise energy saving with data-based intelligent controls via algorithms, energy leakage detection and energy distribution<br>• Energy consumption trend/energy target setting/tenant based power usage<br>• Data-based comfort control prevents overcooling/overheating by calculating the proper temperature in consideration of climate and human factors (clothing and activity)<br>• AI learning based pre-cooling/heating energy saving control predicts time to reach target temperature by learning temperature change and air conditioner setting<br>• Price Response Control helps to reduces 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.<br>• 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<br>• Mandatory Software requirements: Windows 10/11 64-bit Chrome browser is recommended (60.x.x.x or newer) |

## Controls | Interface devices

| Module, Application Kit, Gateway | | |
|---|---|---|
| **External Contact Interface Module**<br><br>MIM-B14 |  | The 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.<br><br>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. Plus the module generates indoor unit operation/error state output through relay contacts.<br><br>• Direct indoor unit control by external contact signal<br>• Window-synchronised indoor unit control<br>• Emergency control with simple contact input<br>• Indoor unit operation/error state output through relay contacts<br>• Net dimensions (W x H x D): 50 x 80 x 35mm |
| **Modbus Interface Module**<br><br>MIM-B19N |  | A BMS or 3rd controller can control a Samsung SAC by using the Modbus protocol.<br><br>• BMS unit protocol: Modbus RS485 (2 wires, max. 1,000m)<br>• Unit connection protocol: Samsung Control Layer Protocol (R1/R2)<br>• Max. No. of connection units: 1 outdoor unit (4 outdoor units including<br>• sub units in the case of modular installation) and 48 indoor units<br>• Modbus interface module address range: up to 247<br>• Net dimensions (W x H): 50 x 80mm |
| **Pulse Interface Module (PIM)**<br><br>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.<br><br>• Exclusive use for DMS 2.5 power distribution<br>• Connection with up to 8 watt-hour meters<br>• Pulse interface with watt-hour meters<br>• Watt-hour meter - by 3rd party<br>• Net dimensions (W x H x D): 240 x 255 x 65mm |

# Controls | Others

| Module, Application Kit, Gateway | | |
|---|---|---|
| **S-Converter**<br><br>MIM-C02N |  | Communication converting module to connect a Samsung system air conditioner to a PC<br><br>• Main reasons for use:<br>- To connect with test run program [Test run program] - S-NET Pro: Conventional communication<br>- S-NET Pro2: New communication<br>• Net dimensions (W x H x D): 66 x 92 x 28mm |
| **External Room Sensor**<br><br>MRW-TA |  | • Indoor unit is operated by MRW-TA instead of its own sensor.<br>• Wire length: 12 m (39 ft) |
| **Receiver Kit**<br><br>MRK-A10N |  | • Concealed wireless signal receiver<br>• Filter replacement sign<br>• Fan operation display<br>• Operation Timer setting display<br>• Operation On/Off button<br>• Operation On display LED (blue)<br>• Defrost operation display LED (red)<br>• Net dimensions (W x H x D): 80 x 130 x 28mm |


DB93-14157A
MAIN
DRM1
DRM2
DRM3
ON YKO

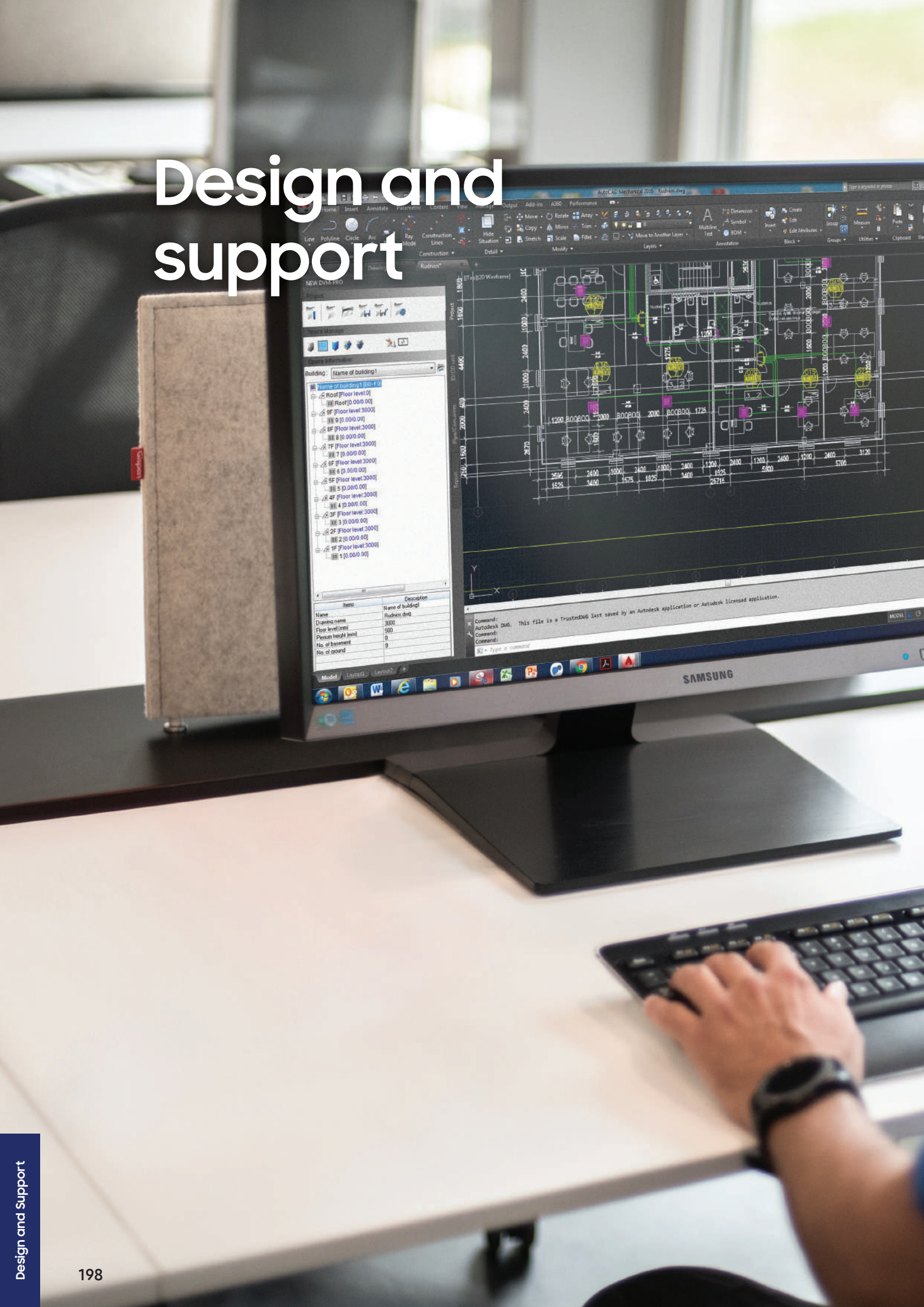
# Accessories

# Compatibility

| Accessories | | Name | Indoor unit | TDM Plus Slim Duct | TDM Plus MSP Duct | TDM Plus WindFree™ Deluxe | TDM Plus Console | Wall-Mounted Hydro Unit | EHS ClimateHub |
|---|---|---|---|---|---|---|---|---|---|
| | | Name | Model code | 2.2-5.6 kW | 7.1-9.0 kW | 2.2- 7.1 kW | 2.2-5.6 kW | 9.0/16.0 kW | 200/260 L |
| EEV Kit (1/2/3 room) |  | 1 Indoor | MEV-E24SA | | | ● | | | |
| | | | MEV-E32SA | | | ● | | | |
| |  | 2 Indoor | MXD-E24K132A | | | ● | | | |
| | | | MXD-E24K200A | | | ● | | | |
| | | | MXD-E32K200A | | | ● | | | |
| |  | 3 Indoor | MXD-E24K232A | | | ● | | | |
| | | | MXD-E24K300A | | | ● | | | |
| | | | MXD-E32K224A | | | ● | | | |
| | | | MXD-E32K300A | | | ● | | | |
| Y-Joint |  | (≤15.0 kW and below) | MXJ-YA1509M | ● | ● | ● | ● | ● (TDM Plus only) | ● (TDM Plus only) |
| Drain Pump |  | Internal | MDP-E075SEE3D | ● | | | | | |
| |  | External | MDP-G075SP | | ● | | | | |
| |  | Internal | MDP-G075SQ | | ● | | | | |
| Backup Heater |  | 4 kW | MHC-400FE | | | | | | ● |
| | | 6 kW | MHC-600FE | | | | | | ● |

Project: Casa L (Spain)
Project Architecture: ÁBATON
Interior Design: BATAVIA
Photography: Carlos Muntadas

# Design and support



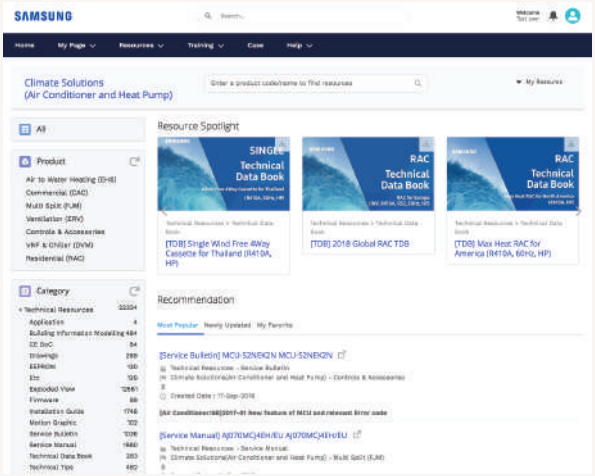

SAMSUN

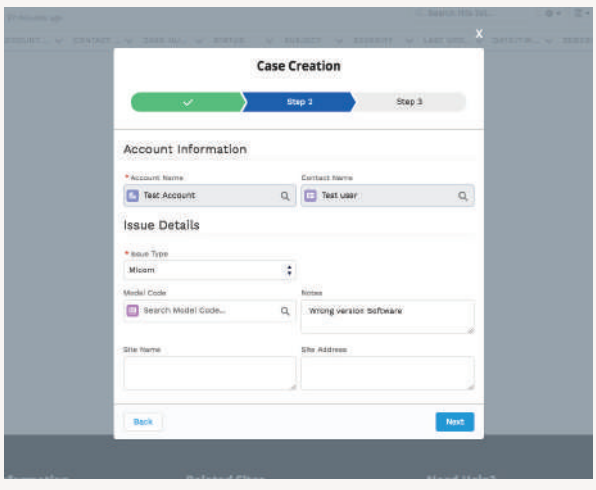
# Samsung Climate Solutions Partner Portal

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, CAD drawings and user and installation manuals.



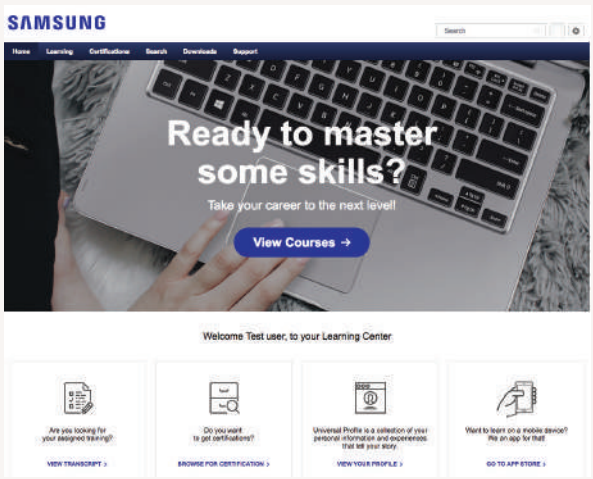

## Request technical support

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.[1]

[1] 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


**Register**

To register for the Samsung Climate Solutions Partner Portal, open your web browser[1] and go to **partnerhub.samsung.com/climate** to complete the registration form.


**Access**

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


**Manage account**

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


**Search and download**

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

[1] Google Chrome is the recommended web browser for using the Samsung Climate Solutions Partner Portal.

# EHS Cloud Service

# EHS Cloud Service

## The all-new remote cloud service console for EHS.

Our aim is to provide comfort and convenience. For your customers, but also for you — our technical partners. You install our products where they're needed, ensure they're in great shape, and keep them in perfect working order. That's why we're launching EHS Cloud Service. Your new remote EHS cloud service console that helps you to save time & costs.

## How EHS Cloud Service works

### 1. Live charts

EHS Cloud Service shows live charts of the EHS's parameters, including download functions.

### 2. Energy consumption overview

This new remote cloud service console for EHS can provide you with an energy consumption overview.

### 3. Automatically issue notification

The service generates automatically issue notification of the EHS functioning directly to the end-user.

### 4. Monitors the correct behaviour

Allows you to monitor the correct behaviour of the EHS and avoid failures.

### 5. Supports preparation and clearer overview

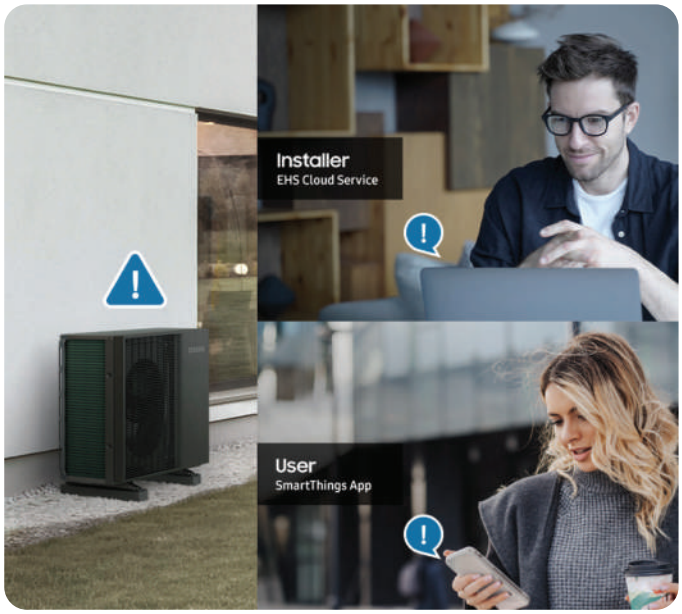
Technical partners don't need to visit the site to check up on the installation. They can remotely access the EHS systems to check their cycle & status and change the Field Setting Values, and also manage the history of any changes made.

### 6. Highlights installations on a map

It highlights installations on a map to help arrange field visits.


SAMSUNG

# EHS Cloud Service




## Data & insights

EHS Cloud Service can provide you with a wealth of technical data and insights[1] regarding the EHS device you're servicing. From error reports to malfunction types, and from status checks to energy consumption information. Wherever you are. Know what's going on at a customer's before you even make the trip.

## Monitoring made simple

It's better to avoid a repair if possible. That's why EHS Cloud Service makes preventive monitoring much easier. With automatic reporting, power usage insights, and live parameter information, you can stay on top of the machines in your care. Allowing you to optimise the performance of the unit.

[1] Only available on Samsung products which are compatible with this service and to the extent, the end-user has agreed to the terms and conditions of the service in the SmartThings app and consented to the privacy notice applicable. A separate Wi-Fi kit may be required for the EHS unit. EHS Cloud does not constitute advice regarding installation, maintenance or other topics, and the information provided through EHS Cloud Service does not confer any right. A separate Wi-Fi Kit may be required for the ClimateHub Split and TDM Plus unit.

# More efficient service

Knowing the type of malfunction and looking at historic parameters chart, before heading out to a customer allows you to prepare your installation service beforehand. You might just save yourself a trip by collecting the necessary parts before you go. Some adjustments can even be made remotely.

# Efficiency

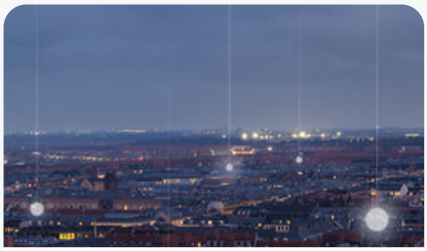
You can save time: assess malfunctions from a distance, optimally manage your parts by making sure you have the right ones during your field visit and advise your customers regarding their usage and energy consumption to keep their devices running smoothly. Happy customers can enjoy peace of mind, knowing you're on top of their machine's performance. How will you use the time and costs you're saving?

# EHS Cloud Service for everyone.

EHS Cloud Service makes life easier for any technical partner. Not only the partner specialists but also the partner management as well as their customers  will find EHS Cloud Service a helpful companion.

### Your customers

- Enjoy peace of mind
- Automatic notification in case of issues
- Easily request service



### Technical partners specialist

- Helps you to save time and costs
- Assess errors from a distance
- Prepare service visits

### Technical partners managers

- Maintain control from a distance
- Keep an overview of issues solved and actions taken by specialists
- Keep overview of connected and served customers

# EHS Selection Software

Samsung EHS Selection Software is a free of charge, online selection aid for Samsung EHS products. Samsung EHS Selection Software is an advanced design automation program that helps you design your heating system more easily and precisely. You can select the most suitable heating system from the entire range of Samsung EHS products and design the system with its user-friendly interface. It helps to ensure that the system's design complies with Samsung's engineering guidelines.

The ability to calculate the heating load, power consumption, export reports, seasonal efficiency data, water pipe schematics, energy labels and Keymark product fiches and much more makes the EHS Selection Software a powerful tool for an installer, designer and end user.

## How to access


**Register**

The EHS Selection Software is an open web-based platform. No registration process is required.
Visit ehs-tool.com


**System Selection**

Select the type of EHS system most suitable to your purpose from EHS Mono, EHS Split or EHS TDM PLUS.


**Design Conditions**

Input your design conditions, heating and cooling loads, DHW consumption.

EHS Selection software can also assist you in calculating heating and DHW loads for your project.


**Product Selection**

Select the most suitable outdoor unit, indoor unit and accessories based on performance charts provided.

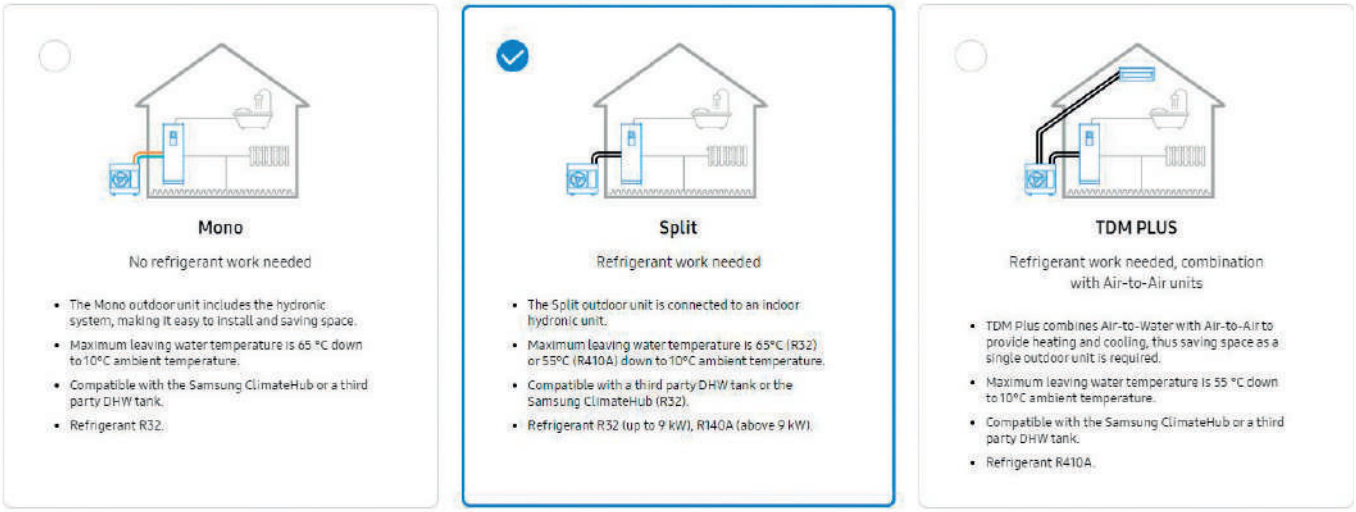

**Report**

Download the EHS Product selection report in PDF or share the link.

# System Selection

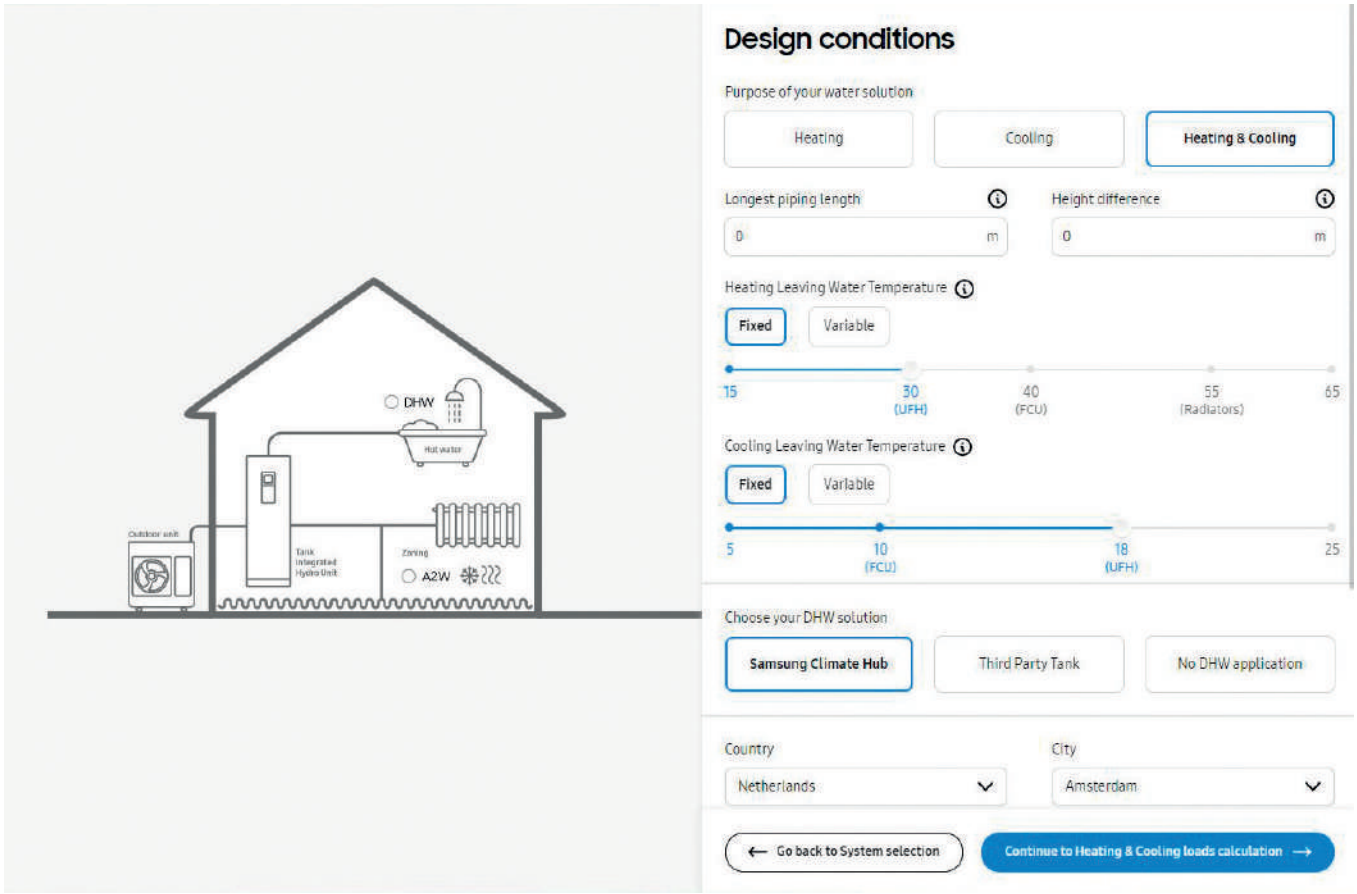
Select the system configuration based on your requirement.

**Select your configuration**



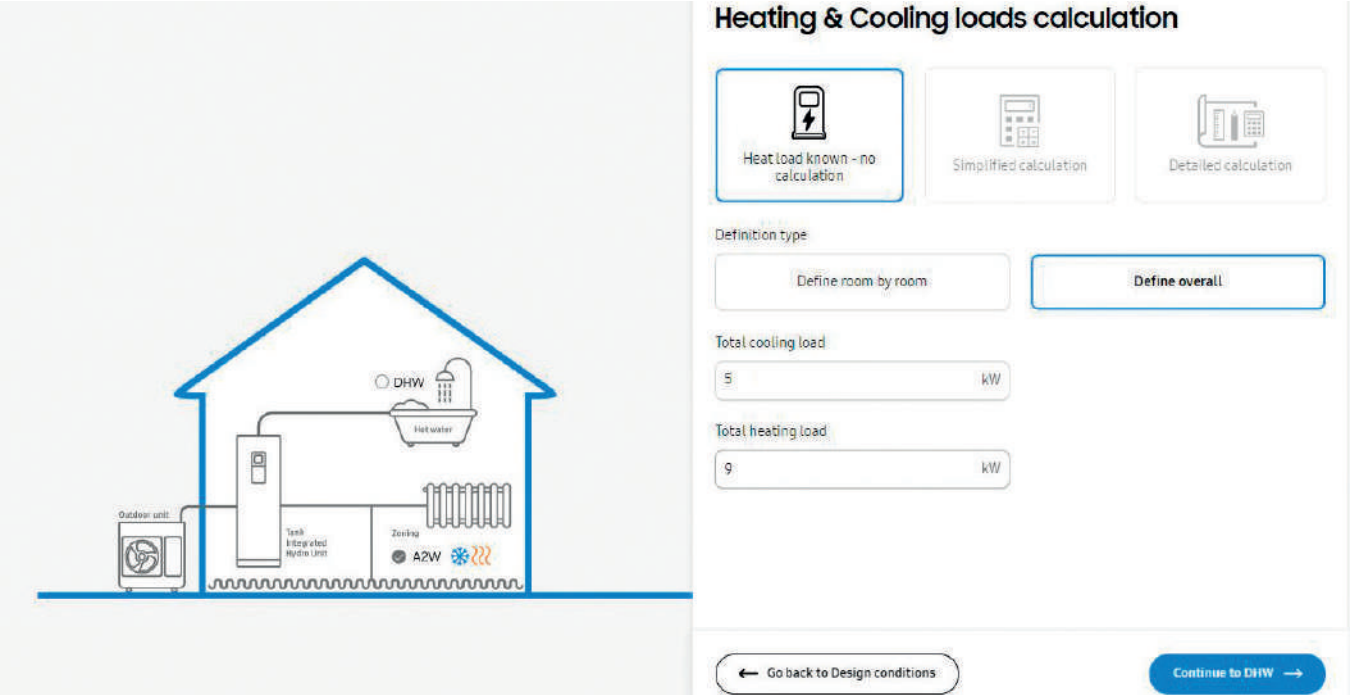

# Design Conditions

Select the purpose of your water solution and its respective piping length, leave in temperature and Domestic Hot Water Solution.



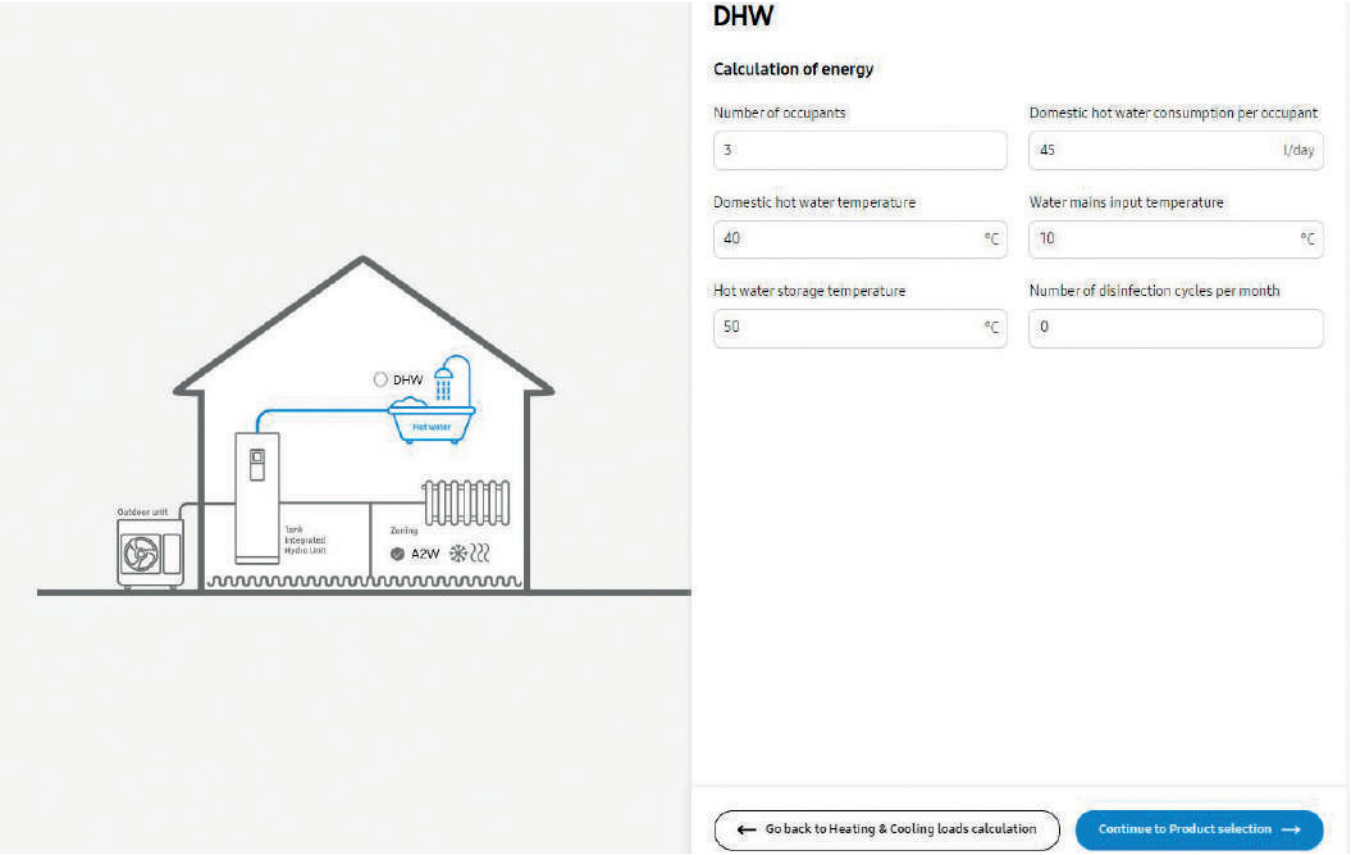
# Heating & Cooling loads calculations

Define the expected heating & cooling loads



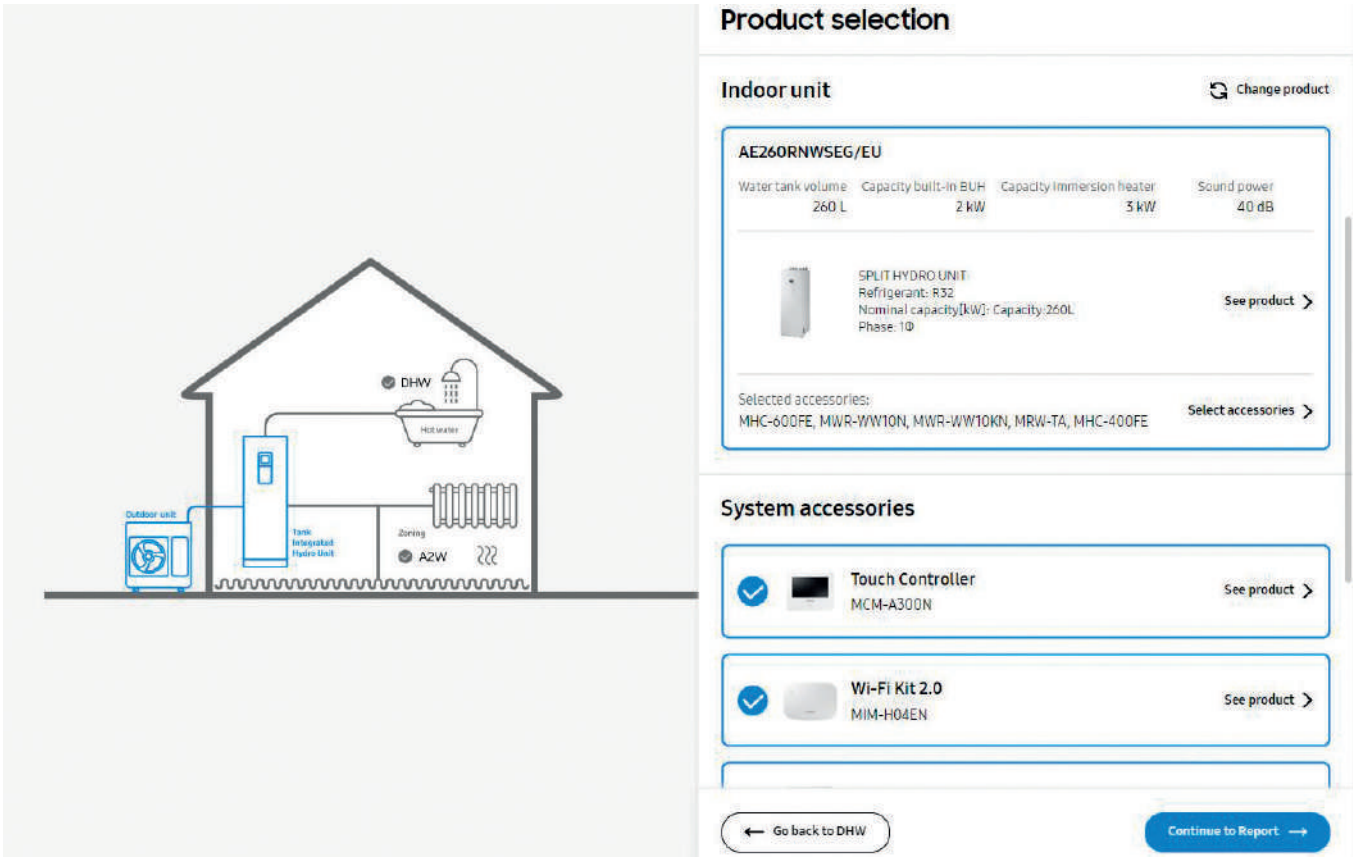

# Domestic Hot Water (DHW)

Define the expected consumption



# Product Selection

Select the Outdoor Unit, Indoor Unit and System accessories




# Report

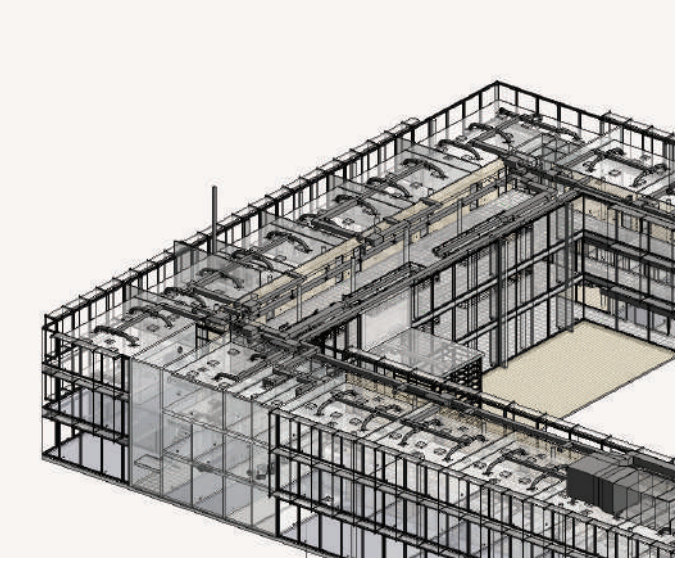
Download the EHS Product Selection report.

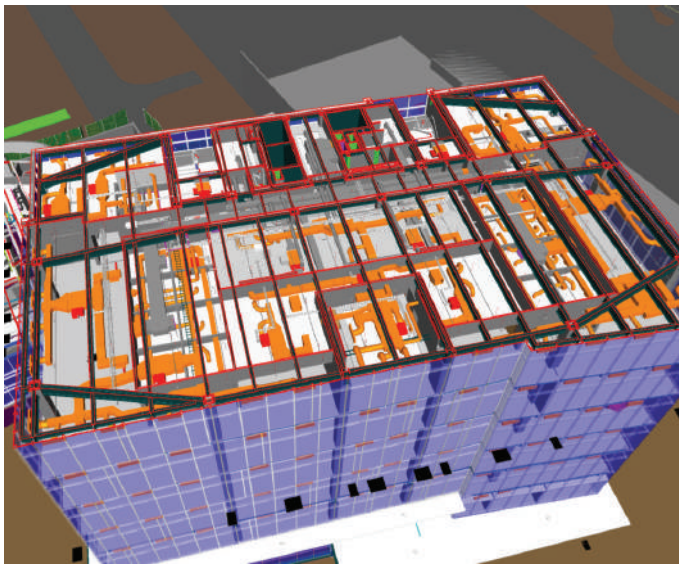
# Samsung specialist design support

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 advice to achieve the best environmental performance, Samsung's specialist engineers are ready to support you in making your project a success.

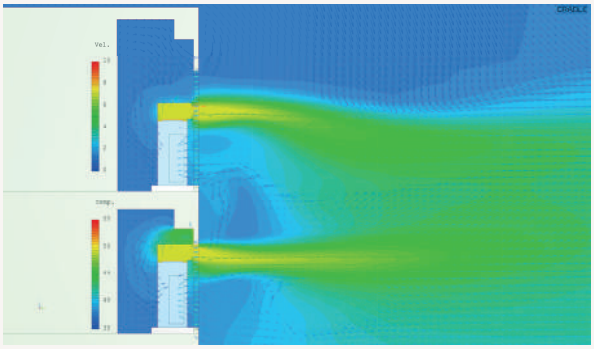
## BIM support

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 for all VRF and VRF Chiller products. You can download these 3D models directly from Samsung Partner Portal or from an online BIM object library by accessing bimobject.com. Alternatively, you can call on our qualified Samsung engineering team for dedicated project design support, using Revit® software to create 3D plans of the building including Samsung air conditioner installations.



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

[1] BRE (Building Research Establishment) is a leading, multidisciplinary building science centre based in the United Kingdom.

# How to obtain support

1 WWW

**BIM support**

To download Samsung BIM models, go tho Technical Resources on **partnerhub.samsung.com/climate**[1].
To request dedicated project design support from Samsung, please contact your Samsung representative.

2

**CFD analysis**

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

3

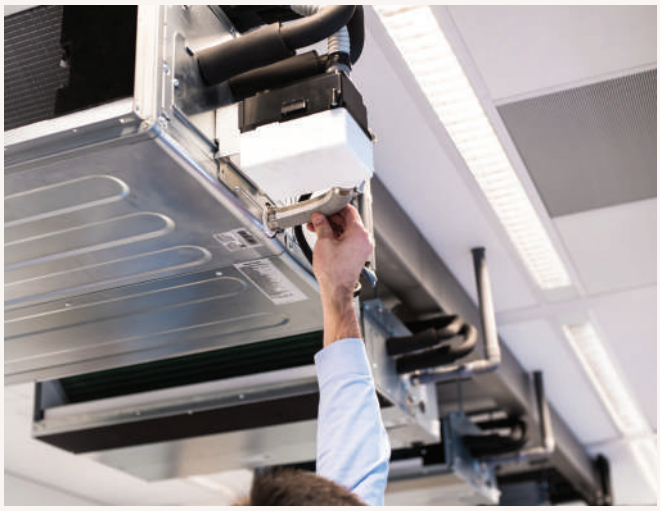
**BREEAM evaluations**

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

[1] 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

### 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

### Advanced courses: Design training

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

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



# How to register for training

1 www

**Search**

To check for available training courses, go to Samsung Business Academy (SBA) via the Samsung Climate Solutions Partner Portal[1]: **partnerhub.samsung.com/climate**. Search the online event calendar and select the training course you would like to attend.

2 @

**Register**

After identifying the training course you would like to attend, follow the registration process. Once you have registered successfully you will receive a confirmation e-mail.

3

**Get certified**

Following confirmation of your registration, we will invite you to one of our training centres. You will be trained by one of our specialised Master Trainers or Product Specialists, and receive a Certificate of Completion.

[1] Google Chrome is the recommended web browser for using the Samsung Climate Solutions Partner Portal.

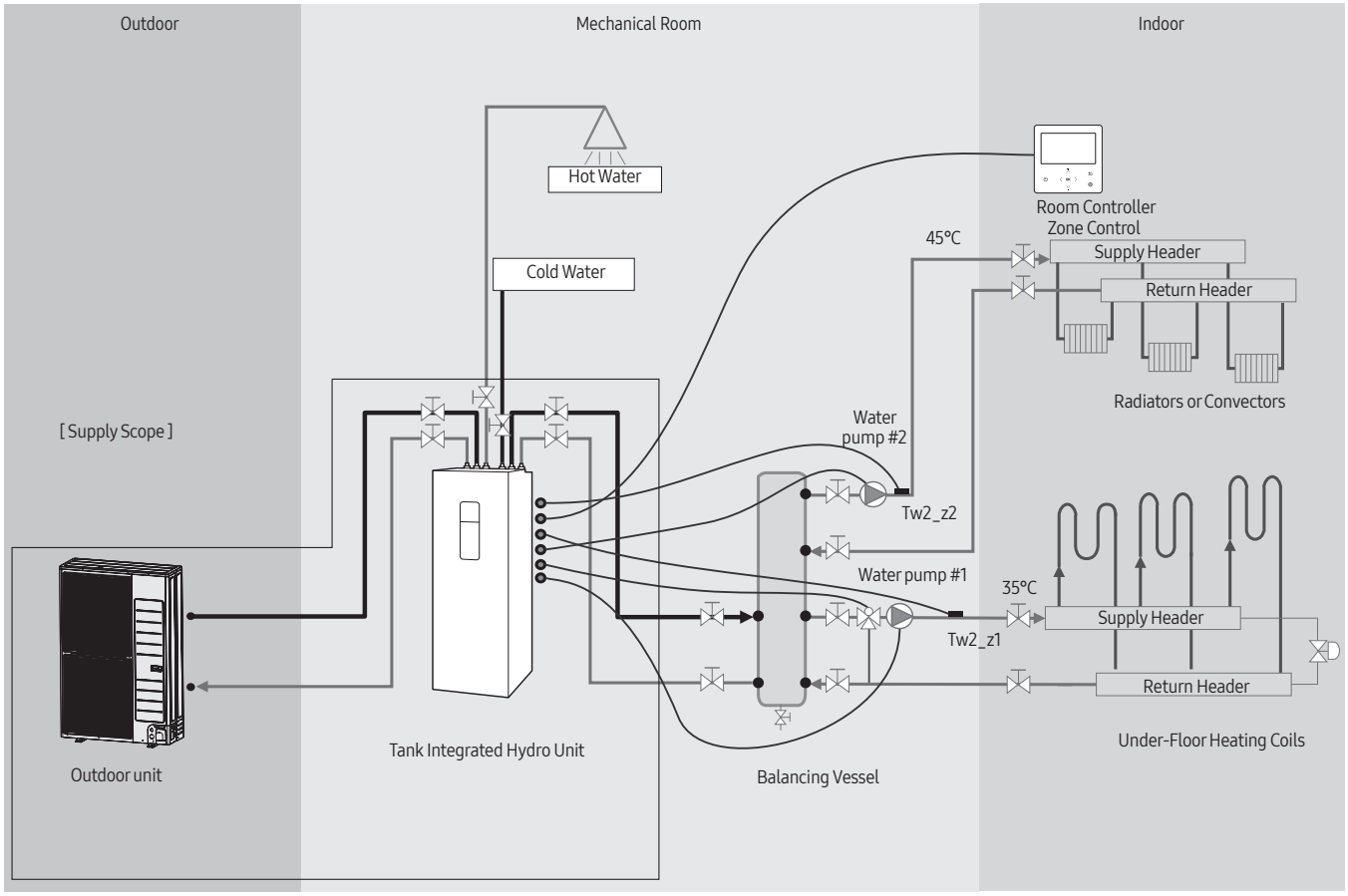
# Hydraulic Schematics


Project: Casa L (Spain)
Project Architecture: ÁBATON
Interior Design: BATAVIA
Photography: Carlos Muntadas

# ClimateHub Split

## Application examples

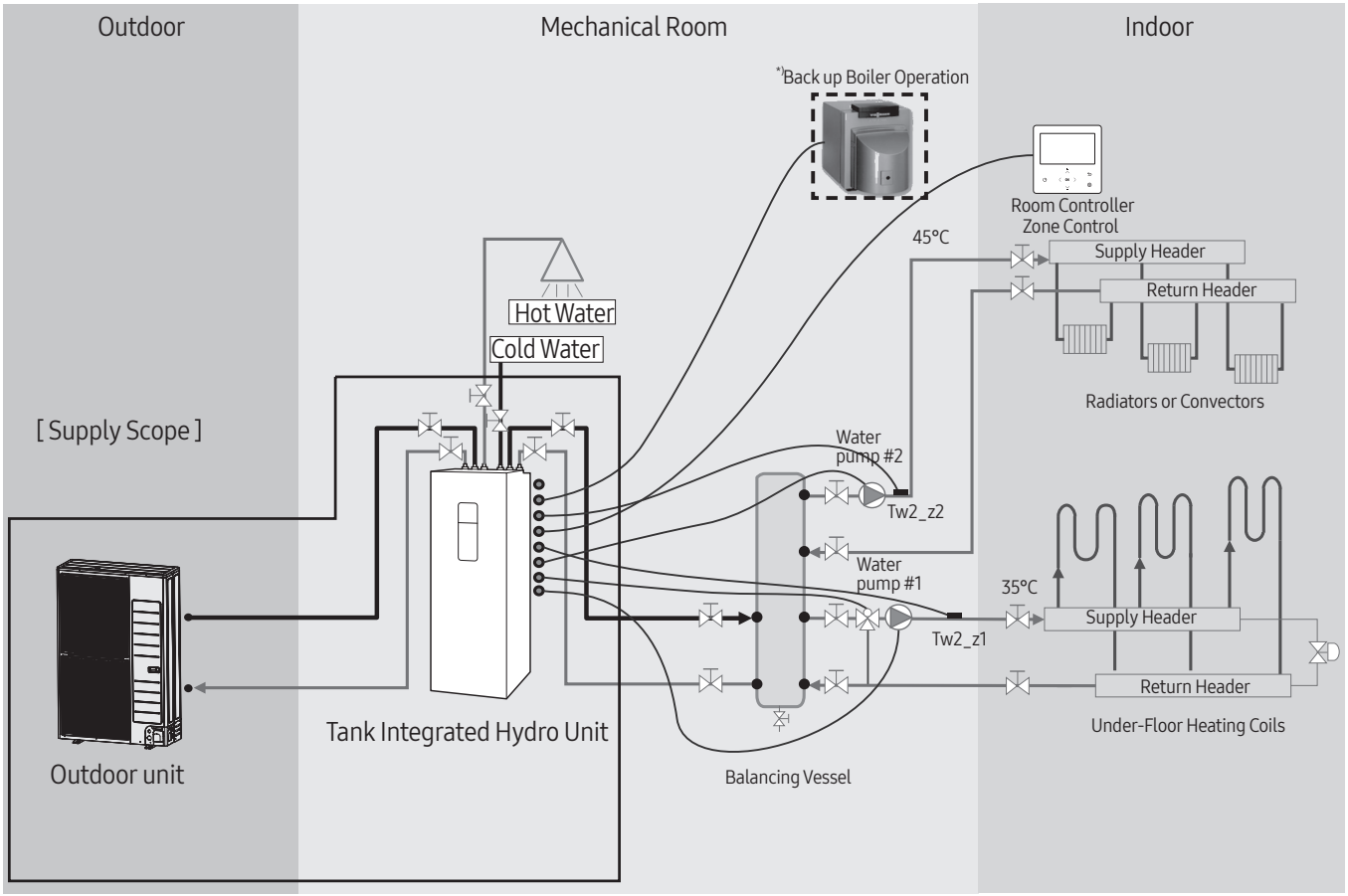
Application 1: Space heating + water heating



# ClimateHub Split

## Application examples

Application 2: Hybrid application (backup boiler)

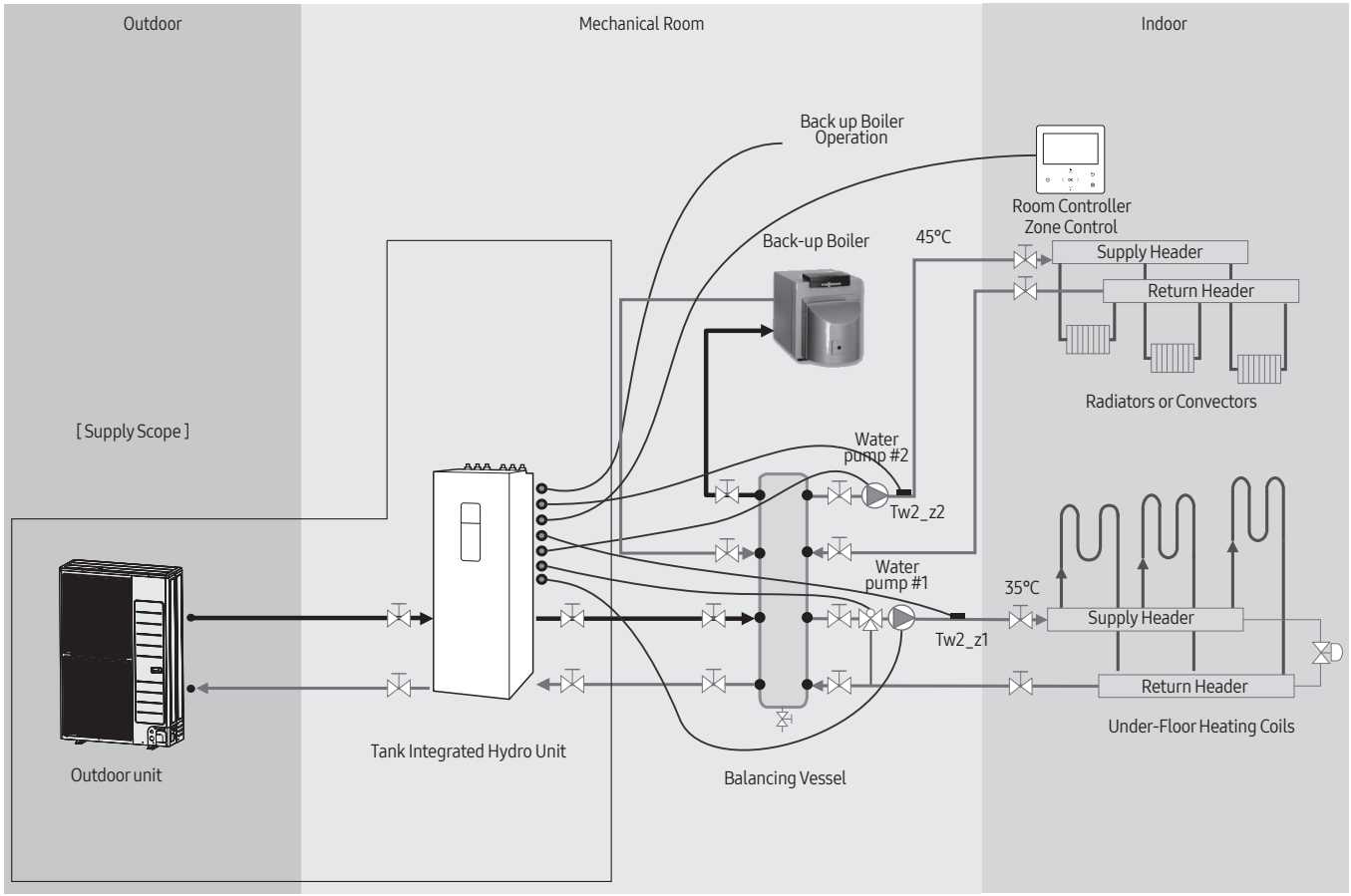



* We control only the on/off signal of backup boiler according to outdoor temperature.
Backup boiler should be installed with own device according to the field condition.

# ClimateHub Mono

## Application examples

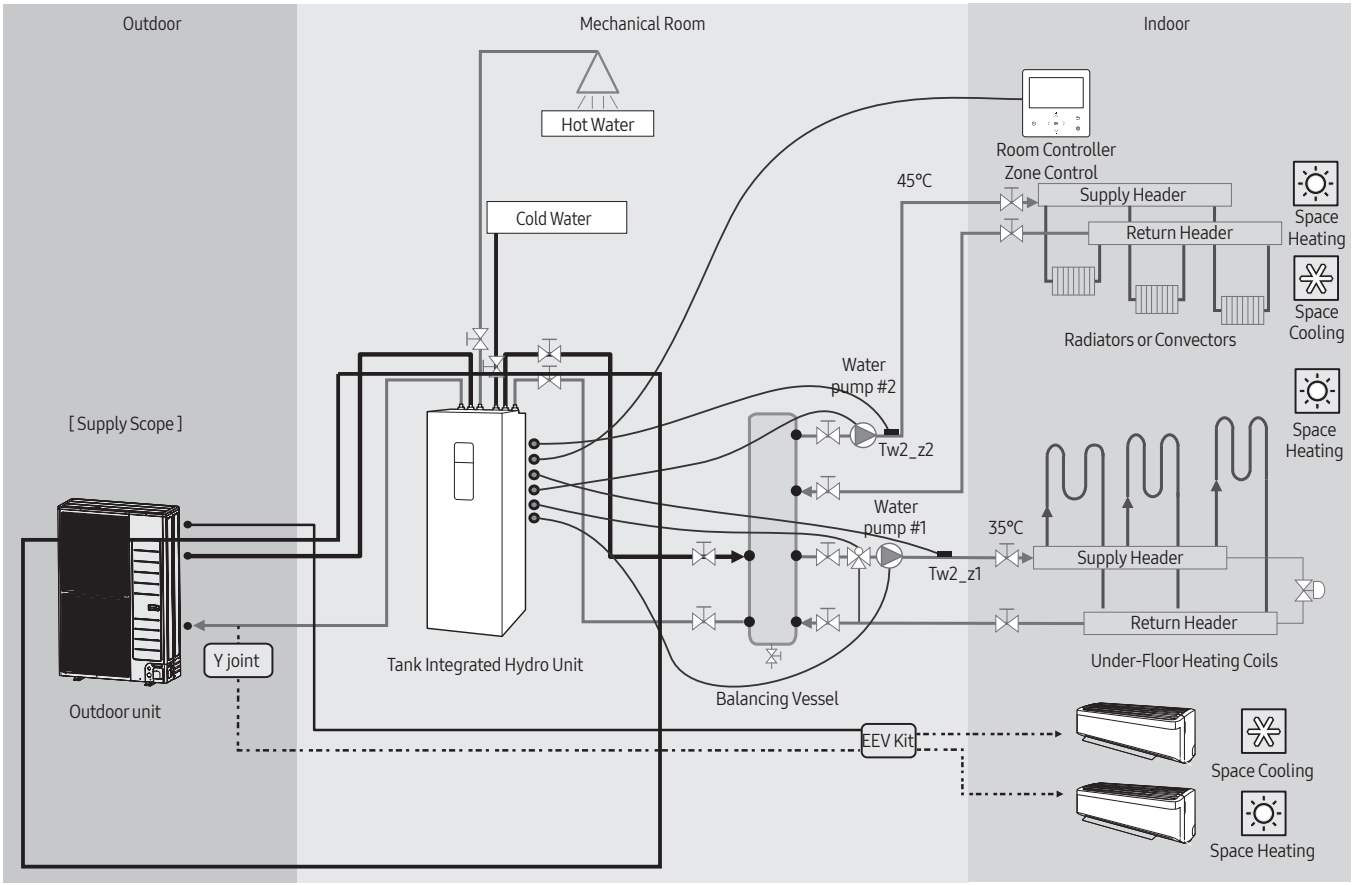
Application 3: Space heating + water heating



# ClimateHub TDM Plus

## Application examples

Application 4: Space heating + water heating/A2A cooling



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# Find your comfort.

## Create your perfect environment.

Learn more about Samsung Climate Solutions at:
**www.samsung.com/climate**



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