

SAMSUNG

EHS Mono HT Quiet

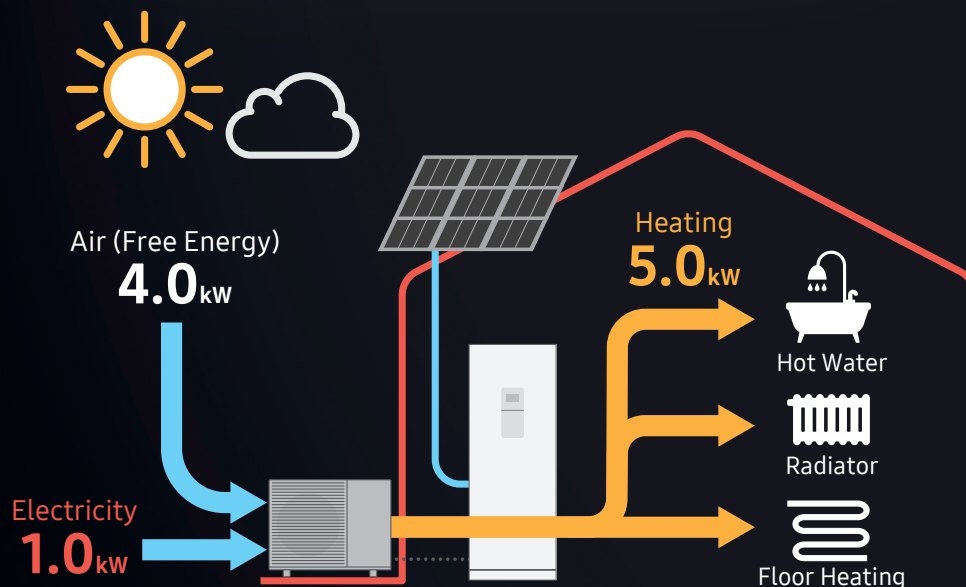
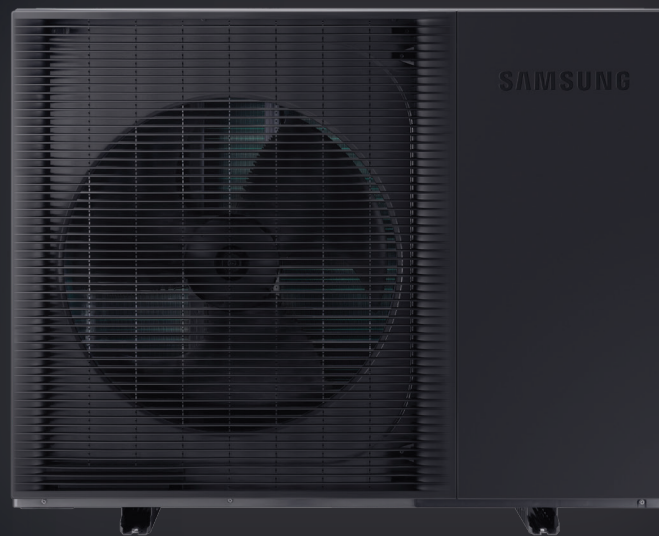
High temperature, low noise,
total capacity.

samsung.com/heating



Introducing the Samsung EHS Mono HT Quiet

Samsung introduces its EHS Mono HT Quiet heat pump that offers high temperature, low noise and total capacity all in one unit. This makes the range ideal for renovations and retrofits as they can achieve domestic hot water at temperatures of 70 degrees and noise levels as low as 35d(BA).



To generate 5.0kW of energy, it consumes only about 1kW of electricity and collects the rest from the air¹.



Hot water temperature

The EHS Mono HT Quiet combines advanced features to achieve hot water temperature of 70°C² and ensures that it is provided reliably.

Enlarged Heat Transfer Area by approximately 11.9% larger³ to help exchange heat quickly.

Strengthened Compression Parts by using Reed Valves.

New Scroll Compressor with Flash Injection.



Energy usage

Our EHS include a range of advanced technologies that help optimize your energy usage. The Samsung EHS Mono HT Quiet has a SCOP* of A+++ energy efficiency rating therefore it is proven to operate with a high level of efficiency.

The Samsung EHS Mono HT Quiet achieves good heating performance at low temperatures by using the R32 refrigerant. This helps mitigate the depletion of the ozone layer and lower the impact of global warming as they reduce the amount of refrigerant needed and cut down on CO₂ emissions compared to conventional R410A refrigerant⁷.



Low noise

With the introduction of new technologies for noise reduction, the EHS Mono HT Quiet operates quietly with noise levels as low as 35 d(BA)⁴ using a 4-step Quiet Mode.

Multi-serration Fan reduces fan noise by minimizing the air vortex.

2-layered Insulation with Groove Grid Felt The 2-layered Insulation consists of Compression Felt on the compressor and an enclosure inside the cabinet, effectively blocks noise. The enclosure is made of a high-performance material⁵ with a patented⁶ Groove Grid Felt design, which absorbs the various noises produced by the compression parts and vibration.

Spring Grommet for the Compressor Mounting absorbs the vibration produced by the compressor and minimizes the resulting noise.

Reinforced Crankshaft in the Compressor reduces low frequency resonance noise.



Quiet Mark Certificate as the unique technical award for excellence in acoustic design to support public health and wellbeing, the Quiet Mark certification on the EHS HT Quiet highlights how the product will provide maximum comfort to the end user.

¹ Based on internal analysis. The average COP (Nominal Heating) of the Samsung EHS Mono HT products is 5.05, so they are eco-friendly compared to conventional boiler systems, which generally have a COP of approximately 1.0.

* SCOP = Seasonal Coefficient of Performance.

² Leaving water temperature, when the outdoor temperature is between -15°C – 43°C. Results may vary depending on the actual usage conditions.

³ 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.

⁴ Based on internal testing. 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.

⁵ 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.

⁶ Patent No.: P2022-0012826.

* SCOP = Seasonal Coefficient of Performance.

⁷ Global Warming Potential rating: R32 refrigerant = 675 vs. R410A refrigerant = 2,088. 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 CO₂ emissions of the EHS is 560 (675 x 0.83), which is 73 % less than the 2,088 produced by a conventional heating system.



Durable & corrosion resistant

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.

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 hours⁸.

GI Steel Plate: The EHS Mono HT Quiet 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)⁹. So, it protects the cabinet from rusting and ensures it can endure harsh conditions.

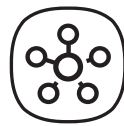
Antifreeze Protection features: Its Antifreeze Protection Control continuously monitors the operating status and the outdoor temperature, and prevents the water pipe from freezing by forcibly pumping the water after a certain period of time¹⁰.

Enhanced Flash Injection Technology: The Flash Injection Technology increases the flow of refrigerant, and the position and size of an injection hole is optimally designed to maximize the refrigerant volume. So, even at -30°C it can supply hot water of up to 60°C for continuous comfort in the coldest conditions¹¹.



Aesthetic design

Its premium dark colour allows for the EHS Mono HT Quiet to seamlessly blend into a building's exterior. This outdoor unit is approximately 1m in height. So, it can be installed under a balcony window, enhancing the home interior as it does not affect the view out of the window.



Easy installation & integration with SmartThings

The outdoor units are designed to be simple to set up and maintain. The unit can be remotely controlled with SmartThings¹².

⁸ Based on internal testing, verified by TÜV 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.

⁹ 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.

¹⁰ 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.

¹¹ Based on internal testing on the EHS Mono HT Quiet outdoor unit compared to a conventional EHS outdoor unit.

¹² 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.



Specifications

			AE080BXYDEG	AE120BXYDEG	AE140BXYDEG	AE080BXYDGG	AE120BXYDGG	AE140BXYDGG
Capacity								
Capacity*	Heating (A7/W35)	kW	8.0	12.0	14.0	8.0	12.0	14.0
	Cooling (A35/W18)	kW	8.0	12.0	14.0	8.0	12.0	14.0
Performance								
Leaving Water Temperature	Heating	°C	15 - 70	15 - 70	15 - 70	15 - 70	15 - 70	15 - 70
	Cooling	°C	5 - 25	5 - 25	5 - 25	5 - 25	5 - 25	5 - 25
Efficiency	SCOP Class (35°C)		A+++	A+++	A+++	A+++	A+++	A+++
	SCOP Class (55°C)		A++	A++	A++	A++	A++	A++
Sound Pressure**	Normal	dB(A)	42	46	47	42	46	47
	Quiet Mode	dB(A)	35	35	35	35	35	35
Operating Temperature Range	Heating	°C	-30 - 43	-30 - 43	-30 - 43	-30 - 43	-30 - 43	-30 - 43
	Cooling	°C	10 - 46	10 - 46	10 - 46	10 - 46	10 - 46	10 - 46
Electrical Data								
Power Supply		Φ, V	1Φ, 220 - 240V	1Φ, 220 - 240V	1Φ, 220 - 240V	3Φ, 380 - 415V	3Φ, 380 - 415V	3Φ, 380 - 415V
Refrigerant								
Refrigerant Type			R32	R32	R32	R32	R32	R32
Water Pipe	Inlet/Outlet	mm	28/28	28/28	28/28	28/28	28/28	28/28
Dimensions								
Net Dimensions	W x H x D	mm	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	1270 x 1018 x 530

The available line-up, including capacities and models, may vary by region. Features and specifications are subject to change without notice.

* 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].

** Sound pressure level is obtained in an anechoic room. Sound pressure level is a relative value, depending on the distance and acoustic environment.

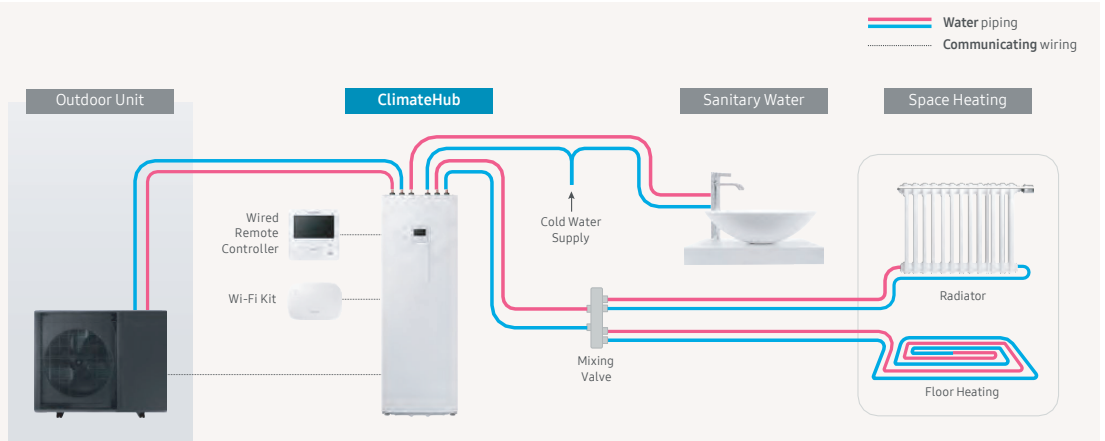
Sound pressure level may differ depending on operation conditions.

Product Range

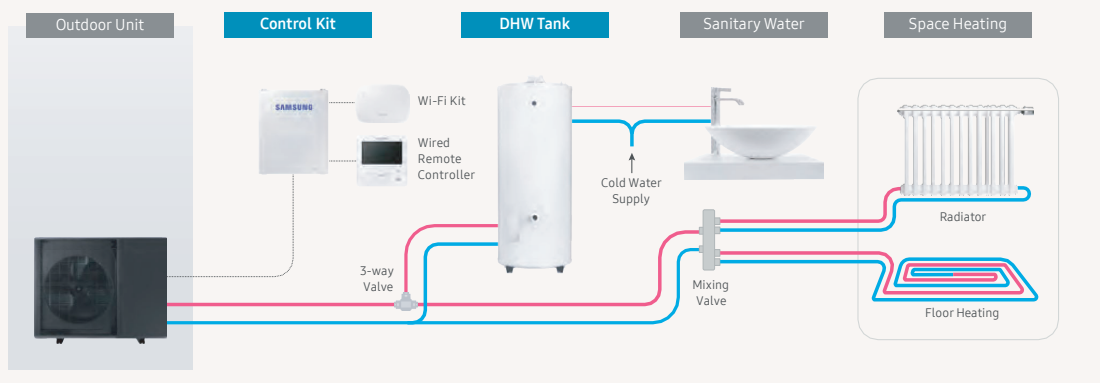
Outdoor Unit	Indoor Unit	Control/Interface				
						
8.0 / 12.0 / 14.0kW (R32)	ClimateHub (200/260L)	Mono Control Kit	Wi-Fi Kit	Wired Remote Controller	Touch Controller	DMS2.5

System Configuration

1. EHS Mono HT Quiet with ClimateHub



2. EHS Mono HT Quiet with Control Kit & 3rd Party DHW Tank



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Find your flow. Create your perfect environment.

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

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

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