

SAMSUNG



Discover the new EHS Hydro Unit

The perfect fit for your comfort

The new Hydro Unit: easy to install and easy to service

The new EHS Hydro Unit is a compact solution for heating and domestic hot water. Used in combination with a third-party tank and its slim fit design, it is easy to install, making it the perfect fit for the home. Its design also offers easy access for servicing. The Hydro Unit has a detachable AI Home 7-inch touch display for user-friendly monitoring and control. When connected to the home's PV system and other devices via Samsung's SmartThings app¹, it enables users to efficiently manage and monitor their energy usage.



Easy to install

The two-zone model is easy to install, even in one day. Smart buffer logic to reduce the system performance dependency on the water volume. Magnetic filters and 3-way valves are provided as standard. The control box is easy to access, and major components and internal pipes have a Quick Connector for easy release by hand, which saves time and effort during service.



Easy
servicing



Easy
installation



Improved
interaction

New Emergency Mode

During a system error in the heat pump outdoor unit, the emergency mode² will activate the built-in electric heater³ of the indoor unit to provide heating and hot water. Emergency mode is set in the menu of the 7" display⁴ during installation to ensure uninterrupted heating when needed.

One-click manual

AI Home provides easy access to the system's user manual. Users scan a QR-code using their smartphone to open and download the manual⁴ in several languages.⁵

Slim-fit design

The slim-fit design of the Hydro Unit fits easily into a variety of spaces. The size is comparable to average home appliances, making it ideal for use in multi-unit homes and apartments, both new-builds and retrofits. The greige tint blends well into new and existing modern interiors.

Easy Installation and Smart Efficiency

Easy Installation

Hydro Unit allows for easy installation in combination with a third-party tank.

Improved defrost operating logic ensures that the water used for defrosting does not interfere with the heating function.

The wider heating control range reduces the Thermo off time and improves overall efficiency and dependability.

Magnetic filters and 3-way valves are standard. The 2-zone models⁶ produce two zones without any additional equipment.

Available as 2kW, 4kW and 6kW.⁷

Energy usage management

When linked to the Samsung's SmartThings App⁸, AI Home enables users to monitor and adapt energy usage in a simple way. If they have a compatible PV installation, they can monitor PV energy usage and solar levels as well. AI Energy mode⁹ connected to the SmartThings App can reduce electricity consumption.

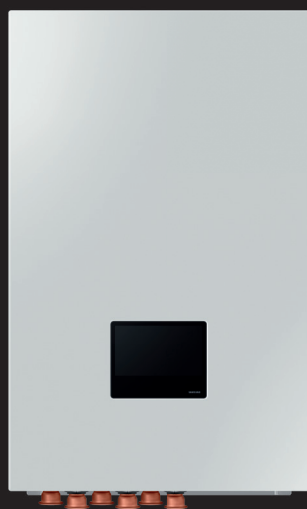
Save time servicing

You can adjust the Field Setting Values on the Home Appliance Smart Service App¹⁰ or EHS Cloud Service instead of using an SD card to save time.

Improved interaction

AI Home offers users a sophisticated smart home control experience with real-time updates on energy usage on the detachable 7" display. It has a standard range of 2m; the optional 30m wire offers extra range. Schedules can be easily adapted, and temperatures adjusted to fit the outside weather conditions¹¹. The full range of functionality is available when the AI Home is connected to the PV system¹² (if available) and other devices allowing efficient energy management by optimizing hot water and heating operations. Users can enhance the smart home solutions by integrating the AI Home with Samsung's SmartThings app, which enables them to control other appliances connected to the app through a Wi-Fi connection. AI Home features a user-friendly interface, supporting multiple languages and presents information through the intuitive layout on the 7" display.

Size



Compact sizing

Width: 530

Height: 840

Depth: 350



Compatible products:

Outdoor Units

Chassis



Model
(20EA)

AE050CXYDEK
AE080CXYD*K

AE080BXYD*G
AE120BXYD*G
AE140BXYD*G
AE120CXYD*K
AE160CXYD*K

AE050RXYDEG

AE120RXYD*G
AE160RXYD*G

AE080RXYD*G

Control interface



Wired remote controller

Touch Controller

DMS 2.5

How it works and what's needed

The new Hydro Unit is easy to install, maintain and service. With all major field installation parts now built into the unit making all installation efforts more time efficient.



- 1 Available on Android and iOS devices. A Wi-Fi connection and Samsung account are required.
- 2 The function to automatically activate an emergency mode when an error occurs will be available in November 2024. For the models bought before time, this function will be available via a software update.
- 3 Using the electric heater will increase energy consumption.
- 4 When the EHS system is connected to the Internet, the manual can be found on the display of the AI Home in November 2024.
- 5 When the EHS system is connected to the internet, the QR code can be found on the display of the AI Home.
- 6 The 2-Zone model is equipped with a circulation pump, mixing valve and temperature sensor, which are not included in the Standard model.
- 7 The 2kW and 4kW electric heaters support a single phase, while the 6kW electric heater supports 3 phases. By adding a 3kW backup heater (MHC-300HP), which supports both single and 3 phases, you can create an electric heater that delivers up to 9kW, to provide reliable heating in extremely cold areas. The MHC-300HP is sold separately.
- 8 Available on Android and iOS devices. A Wi-Fi connection and Samsung account are required.
- 9 The SmartThings AI Energy mode, when used by the end-user, can provide users with a possibility to save energy with regard to their domestic hot water usage based on (repeatable) user pattern. The actual energy savings vary and depend on, amongst others, usage and operating conditions. The AI Energy mode may impact the product performance. End-user may deactivate the AI Energy mode at any time.
- 10 HASS App available in September 2024. HASS App needs to be connected (via USB or wireless) to the appliance to adjust settings. HASS App and EHS Cloud Service are subject to further terms and conditions.
- 11 Wi-Fi connection and Samsung account required. Use a separate laptop/computer to create a Samsung Account.
- 12 Required a connection between the EHS and compatible PV systems and activated using the PV function in AI Home. All the appliances must be connected to the SmartThings App via a Wi-Fi connection using the same Samsung account.

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Hydro Unit

Model		AE160DNYMPK/EU		AE160DNZMPK/EU	
		Type	Standard	2-Zone	
Power Source		Φ, V, Hz	1, 220-240, 50 or 3, 380-415, 50		
Operating Range (Water)		Heating	°C	15~75(70/65) ¹	
		Cooling	°C	5~25	
Sound	Sound Pressure	Heating	dB(A)	26(28) ²	
		Cooling	dB(A)	26(28) ²	
	Sound Power	Heating	dB(A)	40(42) ²	
Dimension (W x H x D)		Net	mm	530 x 840 x 350	
		Gross	mm	602 x 1,032 x 602	
Weight		Net	kg	43.0	
		Gross	kg	50.0	
Connection	Refrigerant pipe (To outdoor unit)	Type	-	N/A	
		Liquid	Φ, mm		
		Gas	Φ, mm		
	Water pipe (To outdoor unit)	Type	-	BSPP Female	
		Inlet	Φ, mm	28	
		Outlet	Φ, mm	28	
	Water pipe (Space heating : Primary)	Type	-	BSPP Female	
		Inlet	Φ, mm	28	
		Outlet	Φ, mm	28	
	Water pipe (Space heating : 2-zone)	Type	-	BSPP Female	
		Inlet	Φ, mm	N/A	
		Outlet	Φ, mm	28	
	Water pipe (DHW)	Type	-	BSPP Female	
		Inlet	Φ, mm	28	
		Outlet	Φ, mm	28	
Water Pump	Type	-	BLDC Inv.		
	Motor Input	W	95		
	Max static pressure	mAq	9.0		
	Number of Unit	EA	1		
Backup Heater	Power	kW	1Φ 2/4kW(3Φ 6kW) ³		
	Thermostat (Thermal Fuse)	°C	98 (+0 -5)		
Safety device	Pressure relief valve	bar	2.9		
	Flow Sensor	LPM	5~60		
	Temperature & Pressure relief valve (Tank)	bar, °C	10bar, 90°C		
Expansion vessel	Internal water volume	liter	10		
	Working pressure	MPa	0.3		
	Pre pressure	Mpa	0.12		
Air Vent Valve		Φ, inch	BSPP male 3/8"		
Operating Range (Outdoor Temperature)		Heating	°C	-25~35 / -30~43 ⁴	
		Cooling	°C	10~46	
		DHW Water	°C	-25~43 / -30~43 ⁵	

Note

- ¹ 75°C: AE***CXYP*K/EU Model / 70°C: AE***BXYD*G/EU Model / 65°C: AE***RXYD*G/EU Model.
- ² “() data” is data when connecting the outdoor unit 12 to 16 kW, and the other 5 to 8 kW.
- ³ “() data” is applied when connecting the 3Φ outdoor unit model, and the other the 1Φ outdoor unit model.
- ⁴ -25~35°C: AE***CXYP*K/EU Model & AE***RXYD*G/EU Model / -30~43°C: AE***BXYD*G/EU Model.
- ⁵ -25~43°C: AE***CXYP*K/EU Model & AE***RXYD*G/EU Model / -30~43°C: AE***BXYD*G/EU Model.

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Learn more about Samsung Climate Solutions at:
samsung-climatesolutions.com

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