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Planet First™

Air-to-Air

It brings comfort to your home by calibrating a stable level of temperature quickly. It can also be used for cooling in the summer and heating in the winter.

Air Heating

Air Cooling

				RD060PHXEA	RD070PHXEA	RD080PHXEA	RD110PHXEA	RD140PHXEA	RD160PHXEA
Outdoor Unit				A2A/A2W Multi	A2A/A2W Multi	A2A/A2W Multi	A2A/A2W Multi	A2A/A2W Multi	A2A/A2W Multi
Function*1				NH080PHXEA	NH080PHXEA	NH080PHXEA	NH160PHXEA	NH160PHXEA	NH160PHXEA
Hydro Unit Combination				1/230/50	1/230/50	1/230/50	1/230/50	1/230/50	1/230/50
Power Supply			P/V/Hz	14/20	16/20	18/20	25/40	28/40	30/40
Maximum Running Current/Recommended MBCB			A	6.0	7.0	8.0	11.0	14.0	16.0
Nominal Capacity*2	Heating		kW	6.0	7.0	8.0	11.3	14.2	15.5
	Cooling		kW	1.54	1.94	2.42	2.90	3.94	4.70
Nominal Power Input *2	Heating		kW	4.60	4.40	4.15	4.55	4.36	4.10
	Cooling		kW	3.90	3.60	3.30	3.90	3.60	3.30
A2W Performance*2	COP		W/W	4.04	4.04	4.04	3.94	3.94	3.94
	EER		W/W	3.21	3.21	3.21	3.46	3.46	3.46
A2A Performance*2	COP		W/W	-20~35	-20~35	-20~35	-20~35	-20~35	-20~35
	EER		W/W	10~46	10~46	10~46	10~46	10~46	10~46
Operation Range	Heating		℃	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43
	Cooling		℃	950x420x310	798x880x310	798x880x310	932x1,128x375	932x1,128x375	932x1,128x375
	Domestic Hot Water		℃	71	71	71	108	108	108
Dimension (WxHxD)	Net		mm	4	4	4	5	5	5
Weight	Net		kg						
Maximum Number of Indoor units Connected EA									

Hydro Unit			NH080PHXEA	NH160PHXEA
Power Supply		P/V/Hz	1/230/50	1/230/50
Leaving Water	Heating	℃	20~55	20~55
Temperature Range	Cooling	℃	5~25	5~25
Operation Range		℃	0~32	0~32
Electric Heater		kW	4	6
Pipe Connection	Liquid/Gas	Inch	3/8"/5/8"	3/8"/5/8"
	Water	Inch	BSPP Male 1 1/4"	BSPP Male 1 1/4"
Dimension (WxHxD)	Net	mm	850x510x315	850x510x315
Weight	Net	kg	49	50

Domestic Hot Water Tank		Standard		Solar Connected	
		NHQ200WHXEA	NHQ300WHXEA	NHQ200WHXES	NHQ300WHXES
Material		Stainless Steel (USI 444/DIN 1.4521)		Stainless Steel (USI 444/DIN 1.4521)	
Water Volume	Liter	198	287	198	287
Electric Capacity	kW	2.6	2.6	2.6	2.6
Heater Power Supply	P/V/Hz	1/230/50	1/230/50	1/230/50	1/230/50
Diameter	mm	500	500	500	500
Height	mm	1,230	1,680	1,230	1,680
Pipe Connection (Sanitary Water)	Inch	3/4" FBSP	3/4" FBSP	3/4" FBSP	3/4" FBSP
Maximum Water Temperature	℃	70	70	70	70

Vivace (Shadow Mirror)				NH022VHXEA	NH028VHXEA	NH036VHXEA	NH056VHXEA	NH071VHXEA
Neo Forte				NH022NHXEA	NH028NHXEA	NH036NHXEA	NH056NHXEA	NH071NHXEA
Performance*3	Capacity	Cooling	kW	2.2	2.8	3.6	5.6	6.8
		Heating	kW	2.5	3.2	4.0	6.3	7.0
Set Size	Net Dimensions (WxHxD)		mm	825x285x189	825x285x189	825x285x189	1,065x298x218	1,065x298x218

Vivace (Shadow Mirror)

Neo Forte

Slim Duct				NH022LHXEA	NH028LHXEA	NH036LHXEA	NH045LHXEA	NH056LHXEA
Performance*3	Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
		Heating	kW	2.5	3.2	4.0	5.0	6.3
Set Size	Net Dimensions (WxHxD)		mm	900x199x600	900x199x600	900x199x600	1,100x199x600	1,100x199x600

Notes

*1 All Model Names in the table are based on Air-to-Air/Air-to-Water Multi operation, Air-to-Water Single models are also available!

*2 Measuring Conditions: (Heating) Hot Water In/Out 30°C/35°C, Outdoor Air Dry/Wet Bulb 7°C/6°C; (Cooling) Hot Water In/Out 23°C/18°C, Outdoor Air Dry Bulb 35°C

*3 Measuring Conditions: (Heating) Indoor Air Dry/Wet Bulb 20°C/15°C, Outdoor Air Dry/Wet Bulb 7°C/6°C; (Cooling) Indoor Air Dry/Wet Bulb 27°C/19°C, Outdoor Air Dry/Wet Bulb 35°C/24°C

- A2W: Air-to-Water, A2A: Air-to-Air
- Specifications are subject to change without prior notice for product improvement.

Freedom Heat Pumps
0845 834 0875
www.freedomhp.co.uk

Air-to-Water

It's the most ideal cost efficient heating system, in which outside air heat source is applied to heating home floors and water.

Under Floor Heating

Radiator

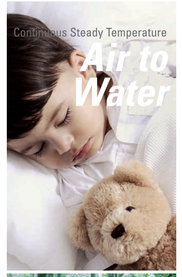
Hot Water

SAMSUNG

Eco Heating System

Samsung EHS is an all-in-one system with highly efficient heat pump technology that keeps your house at a comfortable temperature and your heating and cooling costs low all year round!
This economical and ecological system not only lower energy costs and CO_2 emissions, but also provides various combinations of air and water solutions for heating and cooling that meet different user needs during the four seasons.

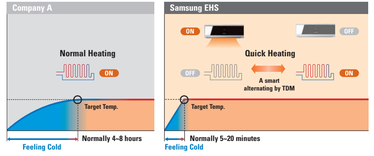
Human Friendly



Quick Heating by TDM Technology

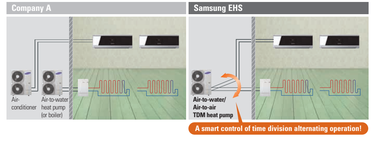
Floor heating is well known as the optimal heating option for indoor thermal comfort. However, it takes 4~8 hours to heat up the room after it is turned on. Samsung EHS TDM technology quickens that process by blowing hot air along with floor heating to warm up the room.

1 Samsung's New EHS Technology



Integrated Heating & Cooling System at a Lower Cost

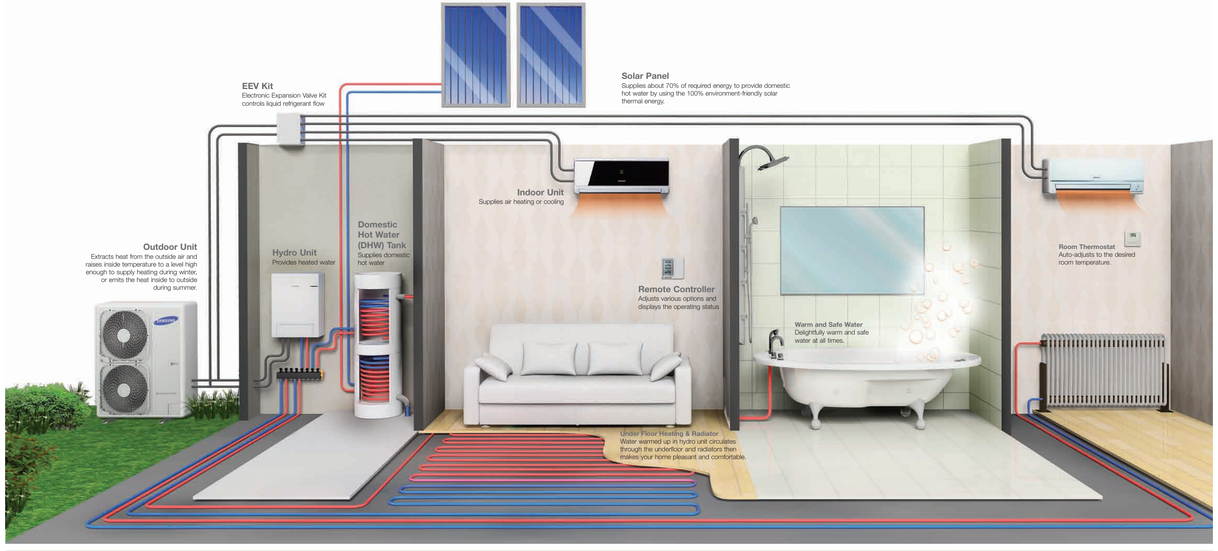
Time Division Multi (TDM), a smart alternating operation between air-to-water and air-to-air, enables one outdoor unit to operate for both functionalities resulting in lower product cost and space saving.



Typical Seasonal Usage

Flexibility

Samsung EHS can be implemented with other optional products: Domestic Hot Water Tank, Thermostat, Pump, Solar Panel or Back-Up Boiler, making it more versatile than ever.



Line-up

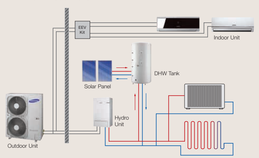
Type	6.0/7.0/8.0kW	11.0/14.0/16.0kW
Outdoor Unit		
Hydro Unit		
Type	**200L**	**300L**
DHW Tank (Optional Solar)		
Type	**200**	**300**
Solar Panel (Field Supply)		

Type	Model	Capacity
Indoor Unit	Vivace	2.2/2.8/3.6/5.6/7.1kW
	Neo Forte	2.2/2.8/3.6/5.6/7.1kW
	Slim Duct	2.2/2.8/3.6/4.5/5.6kW
Remote Controller		

Installation Diagram

Air-to-Air + Air-to-Water

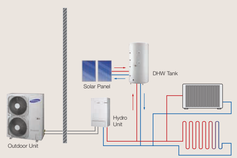
- Outdoor Unit + EEV Kit + Indoor Unit
- Outdoor Unit + Hydro Unit + Under Floor Heating + Radiator + DHW Tank + Solar Panel



- Solar Panel, Back-Up Boiler, and DHW Tank are Optional.

Air-to-Water Only

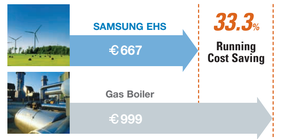
- Outdoor Unit + Hydro Unit + Under Floor Heating + Radiator + DHW Tank + Solar Panel



Environment Friendly

Running Costs-Reduction of Up to 33.3%

Samsung EHS, known for its world class efficiency (11kW floor heating system with COP of 4.55), can reduce 33.3% of your running costs as compared to a gas boiler.



Price and Space Reduction of Up to 50%

With an all-in-one outdoor unit capable of both air-to-water and air-to-air functions, Samsung EHS saves you in terms of the low initial purchase price & installation fee as well as the space needed for an extra outdoor unit.

High Performance at Low Temperature

Samsung EHS is made up of an inverter compressor optimally operated according to the outdoor temperature, offering heating performance of 90% at -10°C and reliable anti-freezing protection at -20°C.

Remote Controller Gives You Easy and Abundant Options

Smart user interface technology has been woven into Samsung EHS to allow easy and convenient control of the cooling and heating system at home. This control allows one-touch access to energy consumption statistics and other components (Solar Panel, Back-Up Boiler, etc) monitoring.

Simple Stand-by Function at Outing
The system in "stand-by mode" stops all of its functions, except for one function that prevents the pipes from breaking/bursting due to weather changes. Additionally, this system can keep the house at a desired temperature even when you are out.

Real-time Energy Consumption Display
5 Eco-level bar indicator shows the level of energy consumption (Solar Panel, Back-Up Boiler and Back-Up Heater of the hydro unit).

Solar Panel and Back-Up Boiler "Work in Progress" Display
The system indicates when Solar Panel and Back-Up Boiler are in the process of hybrid heating.

Automatic Anti-Freezing Function
When the house is left unattended for an extended period during the winter and the temperature outside goes down, the system automatically runs its heat pump to keep the water-flow above the sub-freezing point.