One Step Ahead for You and Your Earth

imagination *lives*

SAMSUNG

Eco Heating System

Smart Thinking, Simple Living.

SAMSUNG

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!

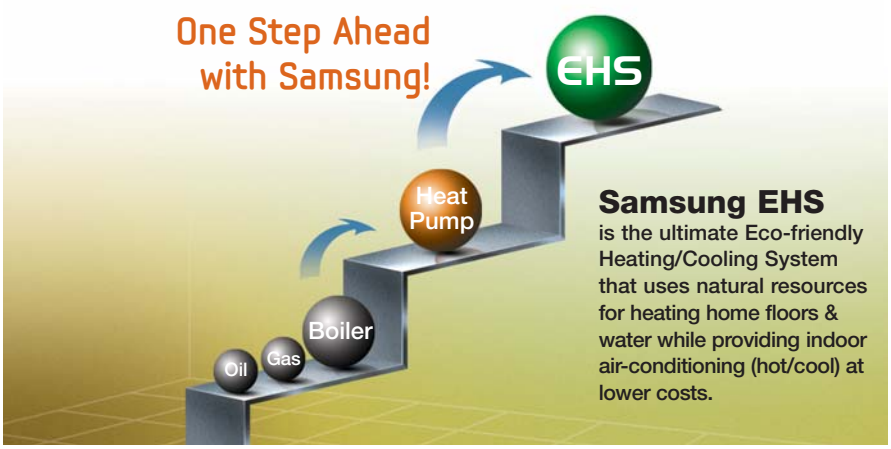
This economical and ecological system not only lower energy costs and CO_2 emissions, but also provides various combinations of air and water solutions for heating and cooling that meet different user needs during the four seasons.

Planet First™

Air-to-Air

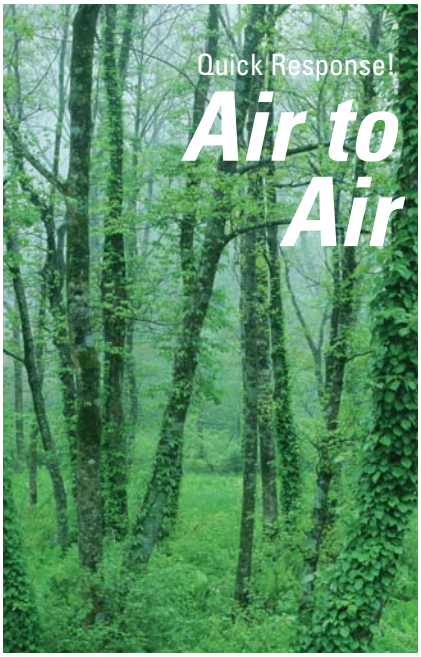
It brings comfort to your home by calibrating a stable level of temperature quickly. It can also be used for cooling in the summer and heating in the winter.

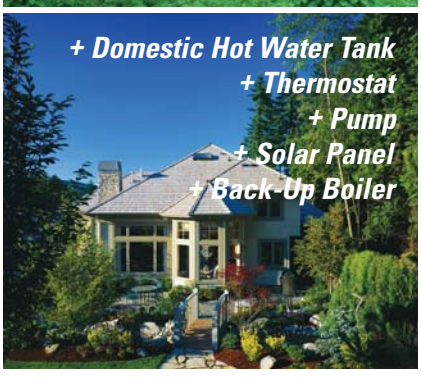
Air Heating



Air Cooling

Human Friendly

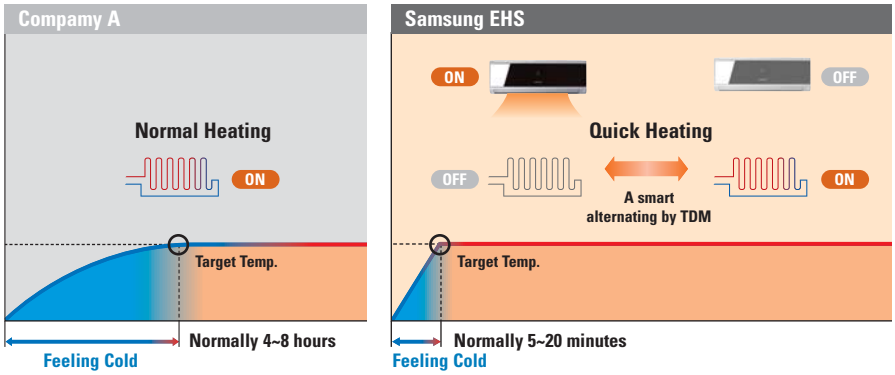




Quick Heating by TDM Technology

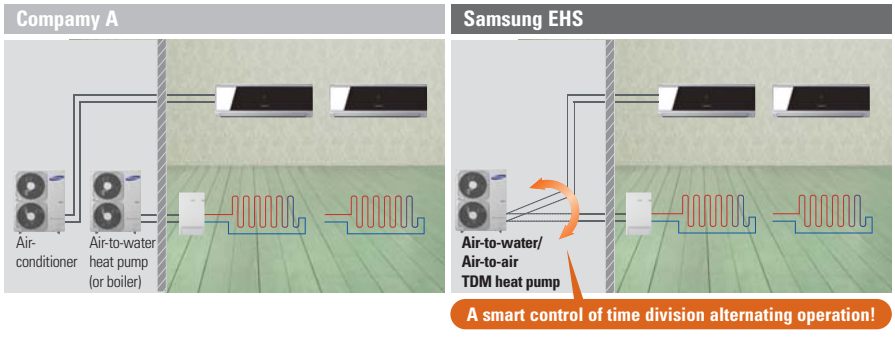
Samsung's New EHS Technology

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.

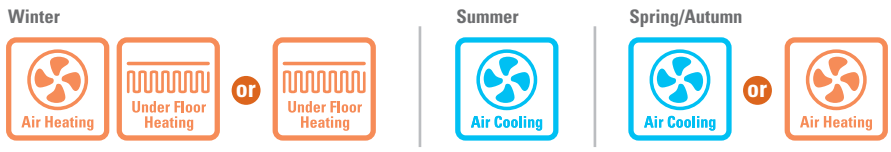


Integrated Heating & Cooling System at a Lower Cost

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



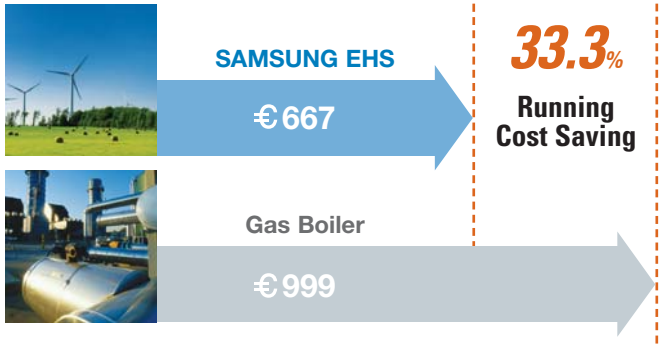
Flexibility

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.

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.

Outing

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.

Eco Level

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.

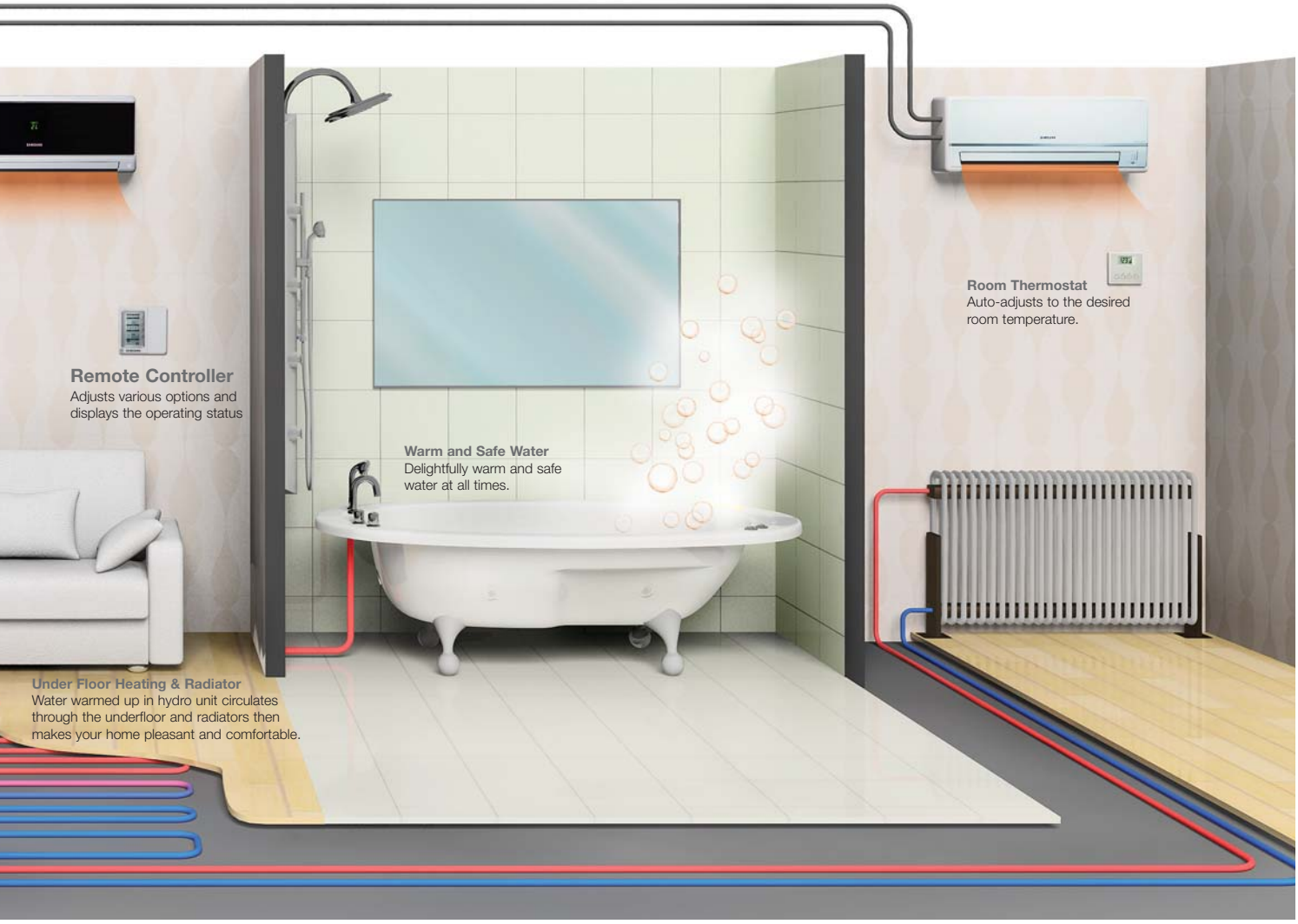
Automatic Anti-Freezing Function
When the house is left unattended for an extended period during the winter and the temperature outside goes down, the system automatically runs its heat pump to keep the water-flow above the sub-freezing point.

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		

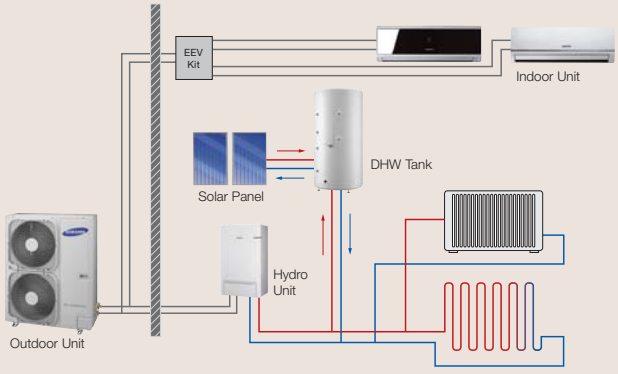
Solar Panel
Supplies about 70% of required energy to provide domestic hot water by using the 100% environment-friendly solar thermal energy.



Installation Diagram

Air-to-Air + Air-to-Water

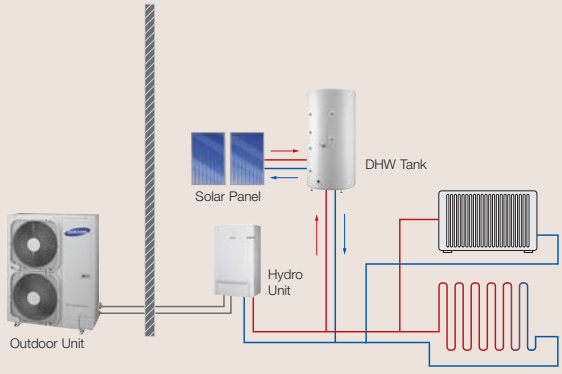
- Outdoor Unit + EEV Kit + Indoor Unit
- Outdoor Unit + Hydro Unit + Under Floor Heating + Radiator + DHW Tank + Solar Panel



- 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



Outdoor Unit			RD060PHXEA	RD070PHXEA	RD080PHXEA	RD110PHXEA	RD140PHXEA	RD160PHXEA
Function *1)			A2A/A2W Multi	A2A/A2W Multi	A2A/A2W Multi	A2A/A2W Multi	A2A/A2W Multi	A2A/A2W Multi
Hydro Unit Combination			NH080PHXEA	NH080PHXEA	NH080PHXEA	NH160PHXEA	NH160PHXEA	NH160PHXEA
Power Supply		P/V/Hz	1/230/50	1/230/50	1/230/50	1/230/50	1/230/50	1/230/50
Maximum Running Current/Recommended MCCB		A	14/20	16/20	18/20	25/40	28/40	30/40
Nominal Capacity *2)	Heating	kW	6.0	7.0	8.0	11.0	14.0	16.0
	Cooling	kW	6.0	7.0	8.0	11.3	14.2	15.5
Nominal Power Input *2)	Heating	kW	1.3	1.59	1.93	2.42	3.21	3.90
	Cooling	kW	1.54	1.94	2.42	2.90	3.94	4.70
A2W Performance *2)	COP	W/W	4.60	4.40	4.15	4.55	4.36	4.10
	EER	W/W	3.90	3.60	3.30	3.90	3.60	3.30
A2A Performance *3)	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
Operation Range	Heating	°C	-20~35	-20~35	-20~35	-20~35	-20~35	-20~35
	Cooling	°C	10~46	10~46	10~46	10~46	10~46	10~46
	Domestic Hot Water	°C	-20~43	-20~43	-20~43	-20~43	-20~43	-20~43
Dimension (WxHxD)	Net	mm	798x880x310	798x880x310	798x880x310	932x1,128x375	932x1,128x375	932x1,128x375
Weight	Net	kg	71	71	71	108	108	108
Maximum Number of Indoor units Connected		EA	4	4	4	5	5	5

Hydro Unit			NH080PHXEA	NH160PHXEA
Power Supply		P/V/Hz	1/230/50	1/230/50
Leaving Water Temperature Range	Heating	°C	20~55	20~55
	Cooling	°C	5~25	5~25
Operation Range		°C	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	
		NH200WHXEA	NH300WHXEA	NH200WHXES	NH300WHXES
Material		Stainless Steel (AISI 444/DIN 1.4521)		Stainless Steel (AISI 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	°C	70	70	70	70

Vivace (Shadow Mirror)

Neo Forte

Vivace (Shadow Mirror) / Neo Forte				NH022VHXEA / NH022NHXEA	NH028VHXEA / NH028NHXEA	NH036VHXEA / NH036NHXEA	NH056VHXEA / NH056NHXEA	NH071VHXEA / 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

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 Buld 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.

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Version.1 2010.02