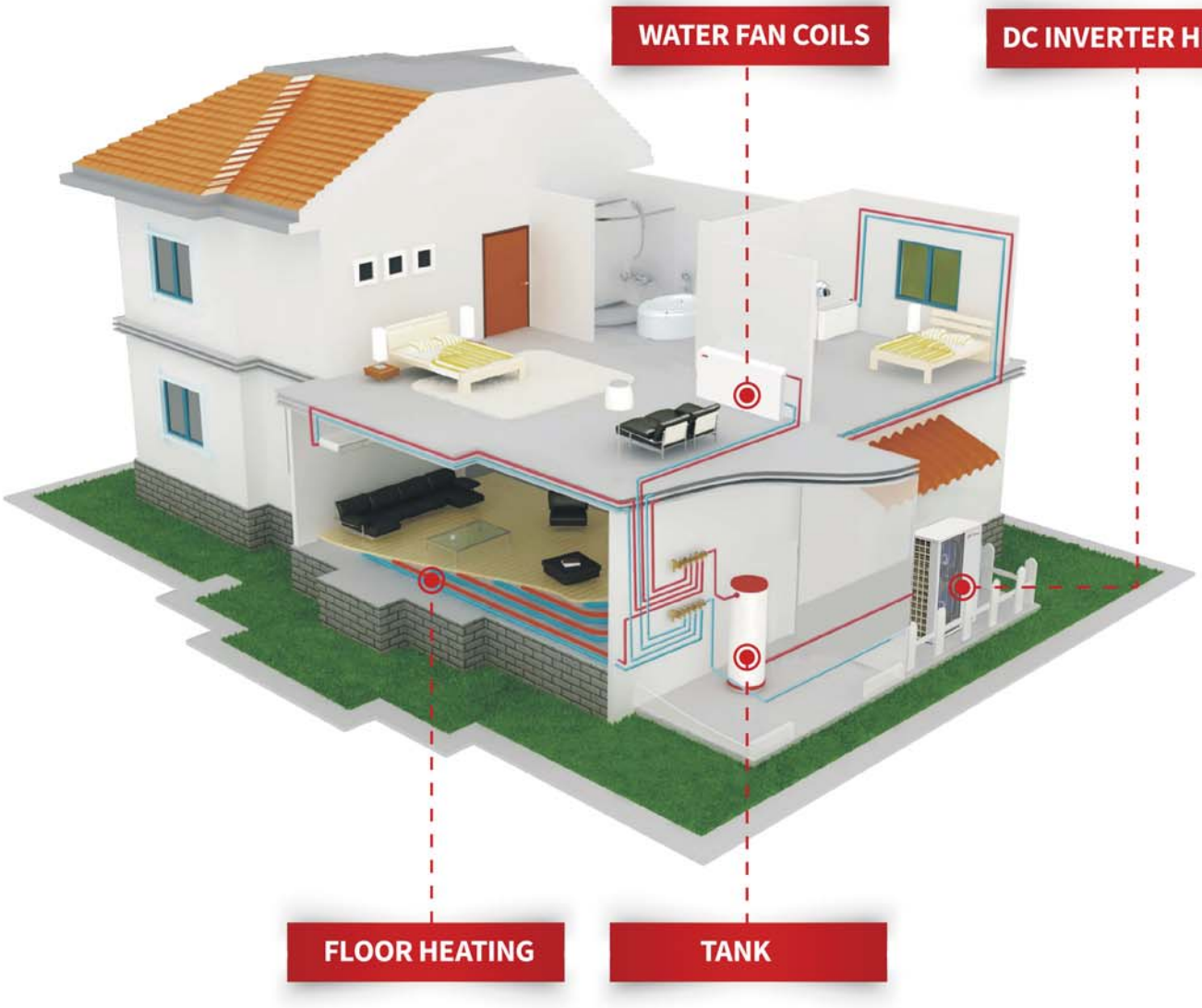
PHNIX

HERO SERIES-DC INVERTER HEAT PUMPS

PHNIX DC inverter heat pump can work efficiently with floor heating, water fan coils or radiators for heating/cooling.



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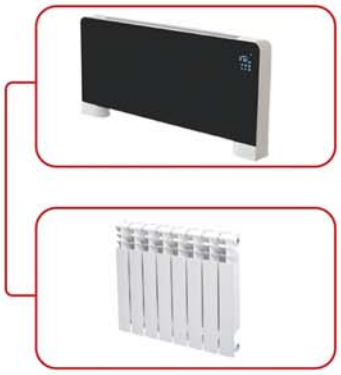


DC INVERTER HP

PHNIX DC inverter heat pump can work efficiently through floor heating, water fan coil or radiator heating/cooling. The monobloc design makes it easy for outdoor installation.

FLOOR HEATING

Floor heating application makes the heat evenly distributed in the room.

FAN COIL OR RADIATOR

The water fan coil designed by PHNIX, is with DC fan motor inside and uses precise temperature control. The Hero Series also work with standard radiators, reaching 55°C outlet water.

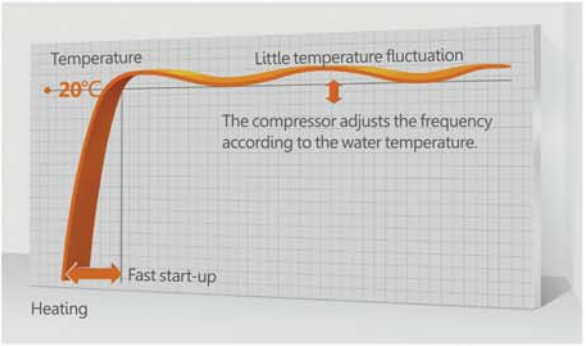
PHNIX ADVANCED HEAT PUMP TECHNOLOGY

ENERGY SAVING UP TO 30%

With the use of inverter compressors, brushless DC fan motors and PFC control method, the units can regulate the running capacity . With no frequent start-ups and stop runnings, the units work in stable condition with high efficiency. The energy consumption is 30% less than that of standard heat pump units.

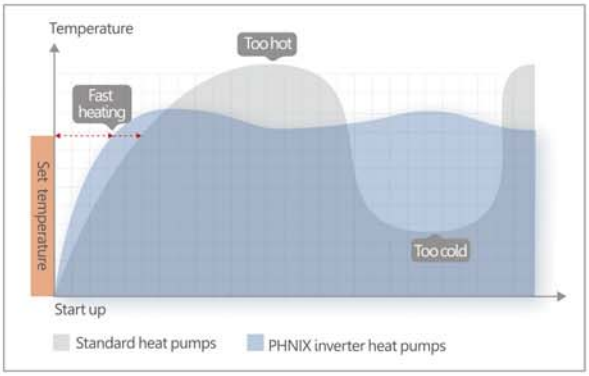
0.5 °C PRECISE CONTROL

The units can change the operating frequency of the compressors automatically according to the heating or cooling demand. When the target temperature is reached, the units run at a lower frequency, and the temperature control accuracy can be as precise as 0.5°C.



SPEED UP HEATING/COOLING TIME

When there is a large difference between the actual temperature and the programmed temperature, the unit can run at a higher frequency to make fast heating or cooling to increase or decrease the temperature rapidly.



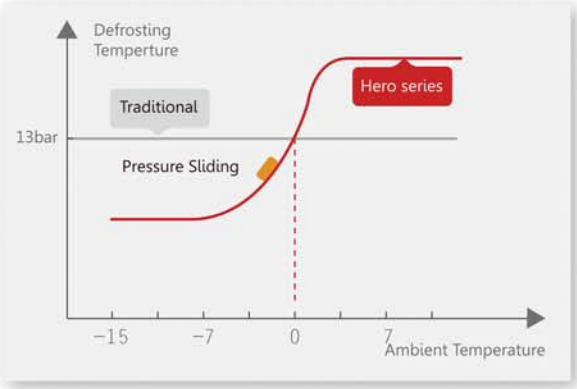
INTELLIGENT DEFROSTING

Traditional Defrosting Method

Traditional defrosting method is with fixed defrosting time and start temperature . Once the ambient temperature reaches or is lower than -7°C, the unit will start defrosting. It's easy to cause energy wasting when there is no defrost and will reduce the heating performance at the same time.

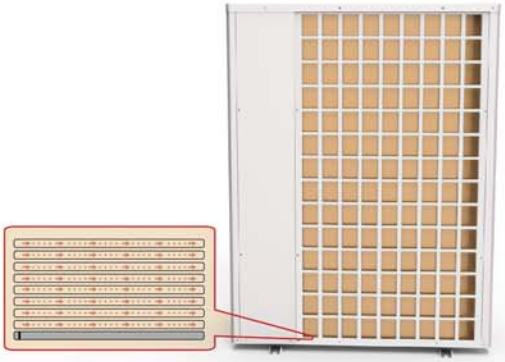
Intelligent Defrosting Method

Hero series intelligent defrosting uses pressure sliding defrosting technology to figure out the exact defrosting time and start pressure according to the real ambient temperature. It saves energy and makes the heat pump work in high efficiency.



NO FROSTING IN THE BOTTOM

With the use of the special liquid distribution technology, in heating mode, the temperature of refrigerant in the air exchanger's bottom copper tube will not decrease in order to ensure no frosting on it and smooth drainage.



WIRE CONTROLLER

PHNIX self-developed wire controller with glass panel and touch screen can be installed on the wall inside the house. It provides you a convenient way to control the heat pump and is applicable to RS485 communication.

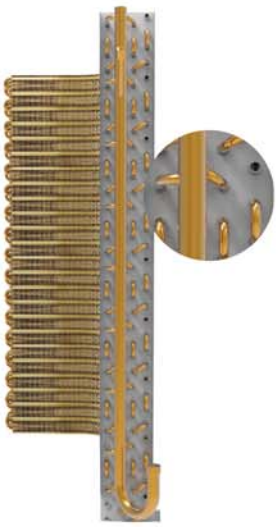
CORE COMPONENT

The use of the famous and reliable brand compressor ensures the unit working in the perfect performance.

HITACHI

MITSUBISHI ELECTRIC

FINNED HEAT EXCHANGER



Riffled Copper Tube

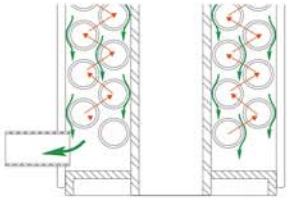
The finned heat exchanger uses riffled copper tube which greatly improves the heating efficiency.

Louvered fins with greater airflow distribution effectively improve the heat exchanging efficiency.

Louvered

Louvered Fins

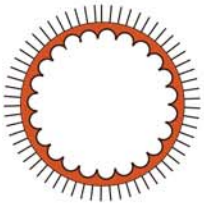
TUBE-IN-SHELL HEAT EXCHANGER



Refrigerant

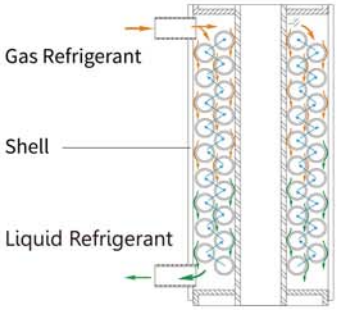
Cooling Water

Cooling water and refrigerant circuit is of counter current design, which ensures the refrigerant outlet subcooling and improves the performance of the heat pump system.



Copper Tube
Cross Section

Spiral copper coil enlarges the water heat exchanging area so that the water can sufficiently exchange heat with gas.



It's not easy to cause lubricant retention because of the small gap between the refrigerant circuit and shell. It makes the lubricant flow smoothly.

5.0MPa
Pressure Test

No welding point inside the Water Coil

There is no welding point inside the water coil which avoids the leakage of the refrigerant. 5.0MPa pressure test ensures the heat exchanger always work stably.

Model		H8	H15B	H25T	H30T
HERO SERIES-DC INVERTER HEAT PUMPS					
Power supply	/	220-240V~/50Hz	220-240V~/50Hz	380-415V/3N~/50Hz	380-415V/3N~/50Hz
Heating capacity	kW	10.8	18.5	24.5	33
Heating power input	kW	2.69	4.71	6.68	9.07
COP	/	4.01	3.93	3.67	3.64
Heating capacity range	kW	2.5-10.8	5.0-17.3	7.0-25.0	10.0-33.0
Heating power input range	kW	0.8-3.4	1.2-5.1	2.5-9.0	5.0-10.0
Cooling capacity	kW	8.1	14.5	18.6	23
Cooling power input	kW	3.35	5.94	8.07	10.10
EER	/	2.42	2.44	2.30	2.28
Cooling capacity range	kW	2.0-9.5	5.0-14.5	7.0-20.0	9.0-24
Cooling power input range	kW	1.0-4.0	1.6-6.0	2.5-9.0	3.5-11.0
Max. running current	A	18+13.7	27	14	18+11
Compressor brand	/	Mitsubishi Electric	Mitsubishi Electric	Mitsubishi Electric	Hitachi
Water pump brand	/	GRUNDFOS	GRUNDFOS	GRUNDFOS	GRUNDFOS
Water connection	/	1"	1 1/4"	1 1/4"	1.5"
water pump head	m	12.5	22	18	21
Motor type (DC or AC)	/	DC	DC	DC	AC
Noise	dB(A)	54	58	62	64
Net weight	kg	110	163	219	337
Gross weight	kg	123	180	243	383
Net dimensions (L/W/H)	mm	980*465*900	990*395*1320	1175*400*1588	1100*1000*1635
Shipping dimensions (L/W/H)	mm	1010*486*910	1030*415*1330	1290*530*1760	1140*1040*1650

Heating: Ambient temp.(DB/WB): 7°C/6°C, Water temp. (In/Out): 30°C/35°C
Cooling: Ambient temp.(DB/WB): 35°C/24°C, Water temp. (In/Out): 12°C/7°C
The above data is tested under compressor frequency of 90Hz.

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