

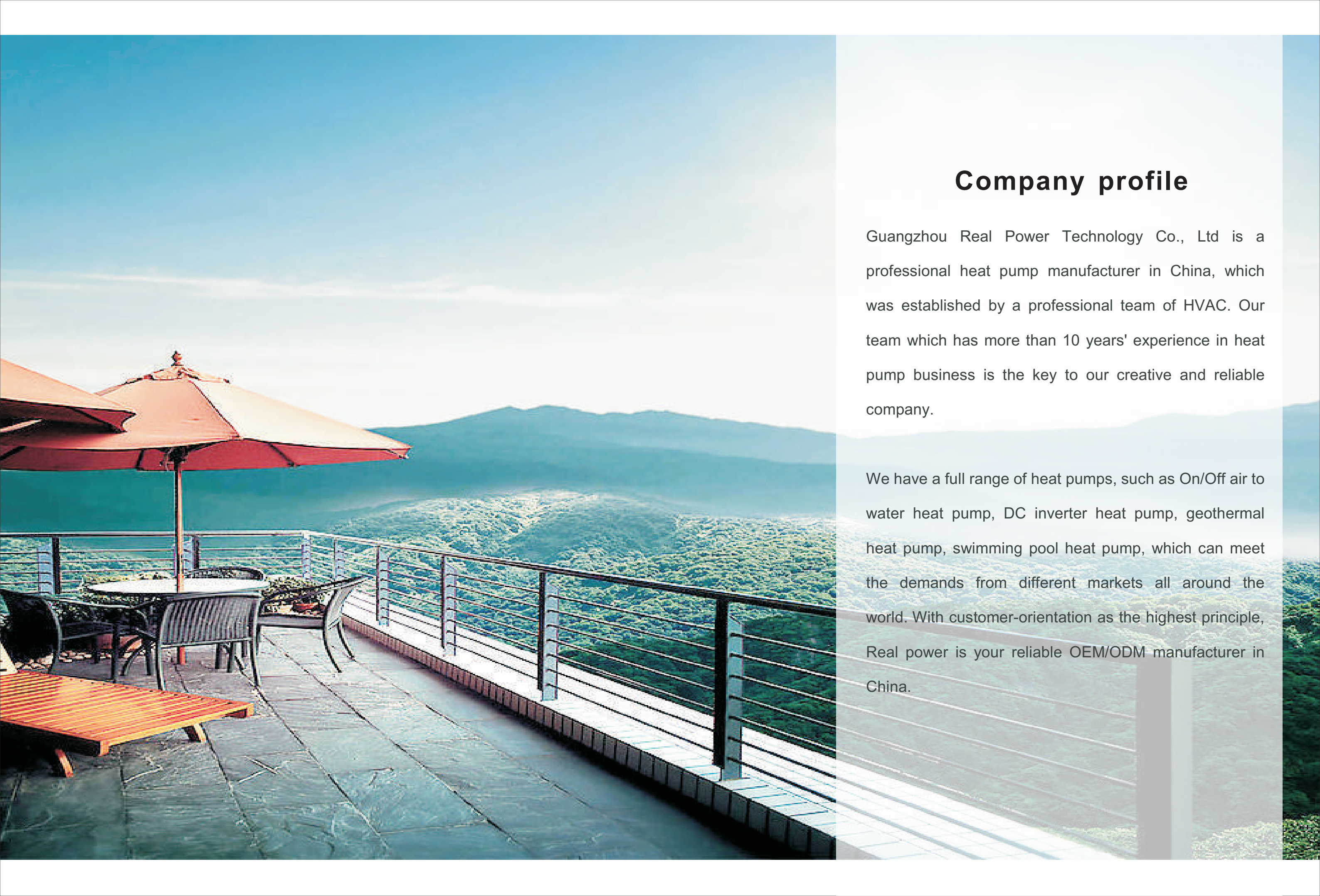


## REAL POWER PRODUCT LIST

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广州芮帕科技有限公司  
GUANGZHOU REAL POWER TECHNOLOGY CO., LTD



## Company profile

Guangzhou Real Power Technology Co., Ltd is a professional heat pump manufacturer in China, which was established by a professional team of HVAC. Our team which has more than 10 years' experience in heat pump business is the key to our creative and reliable company.

We have a full range of heat pumps, such as On/Off air to water heat pump, DC inverter heat pump, geothermal heat pump, swimming pool heat pump, which can meet the demands from different markets all around the world. With customer-orientation as the highest principle, Real power is your reliable OEM/ODM manufacturer in China.



# Why choose REAL POWER heat pump?

## Economical

Real power air source heat pump makes heating your house and domestic hot water much cheaper. It saves your 60% heating cost compared with the traditional heating elements like electrical heater, gas/fuel boiler and wood-fired boiler. The reason for this is that a heat pump uses free energy from natures.

Although the heat pump can not pay you back in the first month, you will notice the benefits soon since the heating bill is dramatically lower than before. The high efficiency of real power air source heat pump makes you get back the investment faster. In fact, it saves money for you as soon as you finish the installation and cycle it on.

## Energy efficient and environment friendly

By absorbing free & green energy from nature to heat your house and sanitary hot water, it produces much lower CO<sub>2</sub> emissions than any traditional heating system such as gas boiler and wood-fired boiler.

Wherever you live, you can install an Real Power air source heat pump and enjoy the efficient, safe, problem-free heating and hot water at a fraction of the alternative cost and a fraction of the environmental impacts.

## Powerful function

One Real Power heat pump can provide you with comfortable room temperature and 24 hours' hot water.

## Safe and reliable

No risk of burning, explosion, electric shock and gas poison, Real Power heat pump works reliably with more than 10 years' life span and low maintenance cost.

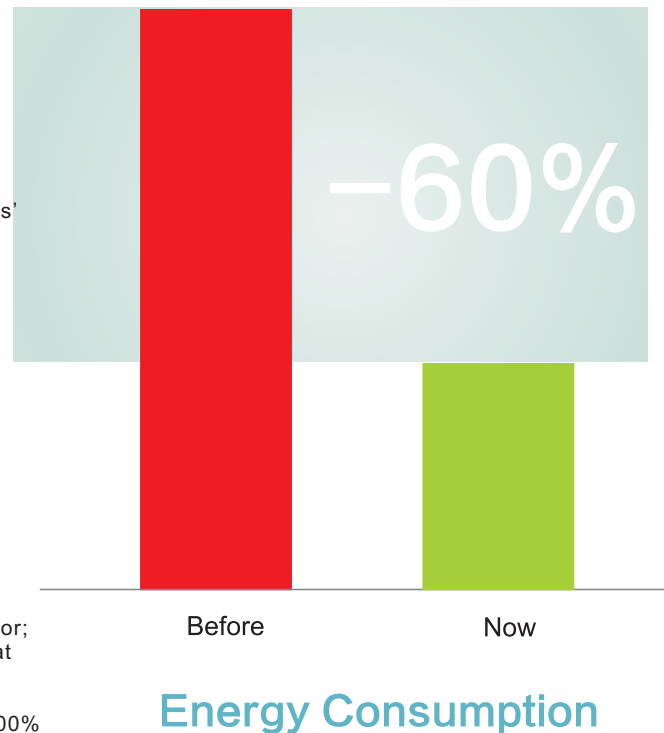
## 24 hours' running

Real Power heat pump can be in running for 24 hours all the year around without being affecting by the weather and varies of the season.

## Exquisite workmanship and excellent quality

The main components are all from internationally famous brand (American Copelan or Japanese Panasonic compressor; Germany Wilo or Grundfos pump; Swedish SWEP plate heat exchanger; Germany Sika flow switch, etc.).

The key points are strictly monitored in the production and 100% running test is operated before the packing, to make sure that the heat pump is high quality and works reliable.



## Comparisons between Real Power heat pump and other heating methods

heating methods	Real Power heat pump		Electrical heater		pipelined gas	Oil boiler	liquefied gas
	Residential electricity	commercial electricity	Residential electricity	commercial electricity	pipelined gas	light diesel oil	liquefied gas
Energy calorific value	860Kcal/KW.h	860Kcal/KW.h	860Kcal/KW.h	860Kcal/KW.h	3800 Kcal/m3	10200Kcal/kg	10800Kcal/KW.h
Annual average thermal efficiency	380%	380%	95%	95%	65%	75%	70%
Actualheating value	3268Kcal/KW.h	3268Kcal/KW.h	817Kcal/KW.h	817Kcal/KW.h	2470 Kcal/m3	7650Kcal/kg	7560Kcal/KW.h
Energy consumption to heat 1000kg of water	12.24KW.h	12.24KW.h	48.96KW.h	48.96KW.h	16.19m3	5.23kg	5.29kg
Energy price	¥0. 65/KWh	¥0. 9/KWh	¥0. 65/KWh	¥0. 9/KWh	¥2.5/m3	¥4.8/kg	¥5.4/kg
cost of 1000kg of hot water	¥7. 96	¥11. 02	¥31.82	¥44.06	¥40.48	¥25.1	¥28.57



## Ground Source Heat Pump

Ground source covers four different heat sources such as rock, surface soil, ground water and lake. Several factors such as the energy need, the existing heating system and the topographic conditions etc. decide that which heat source is the most suitable for your house. Through any of the 4 heat sources, the heat pump system gathers the heat stored under the ground to heat water, providing house heating and domestic hot water.

## Install Real power heat pump for your house

### Triple Function

Heating, cooling, hot water

With Real Power heat pump, all three functions can be realized. The house heating is realized via underfloor heating system or radiator; The house cooling is realized via fan coil or underfloor system.

### No affect on vision

Because all the parts are buried under the ground, so you can see nothing trace of the heat pump from outside.

### Comfortable and reliable

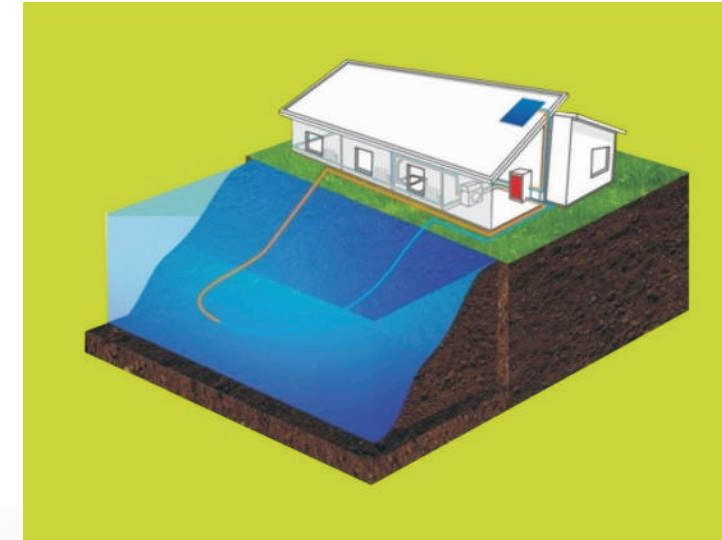
Antifreeze can be added in the ground source heat pump, with the mixed solution of the antifreeze and water, the heat energy of the heat pump can be continuously transferred to your house, so even in the very cold winter, there is no worry about the running of the ground source heat pump.



## Rock

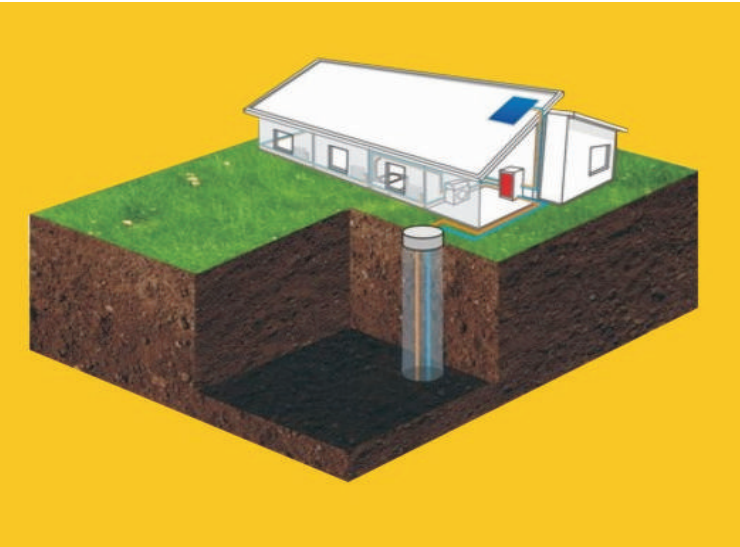
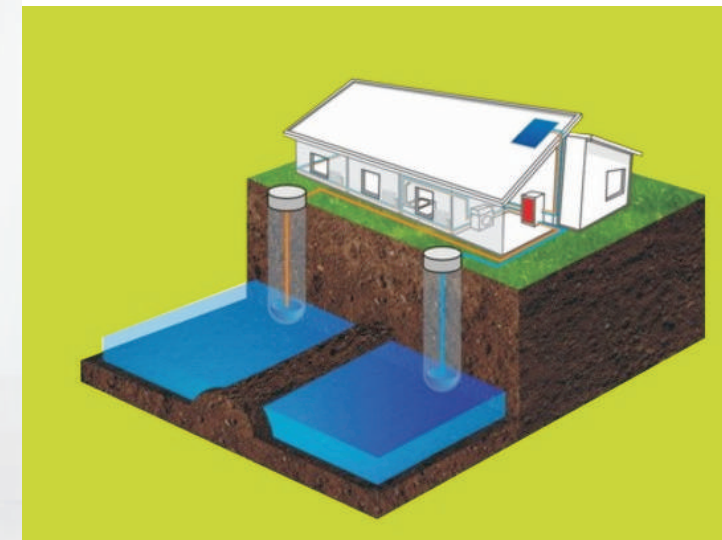
There is a heat source with almost constant temperature in the shallow soil layer of the earth. Ground source heat pump can use this heat source all the year around. The heat pump collect heat from the collector drilled into the rock. The depth of the well can be from 90-200 meters depending on the heat pump capacity and the local regulation.

This system applies to all kinds of buildings, large or small, public or private. It takes up less space since the ground probe can be even drilled in the smallest gardens.



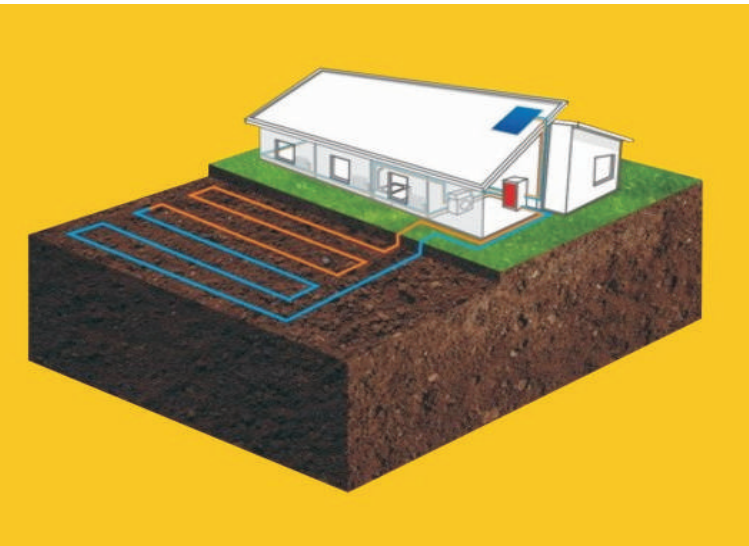
## Surface soil

The solar energy is stored in the shallow soil layer in summer. It is directly absorbed by the soil from the sun or from the rain and air. The ground source heat pump collect this stored energy via the collector filled with antifreeze and buried in the soil. The collector is buried at the depth of 80-100cm with lengthen between 250m and 400m depending on the heat pump capacity.



## Lake

The heat stored in the lake water can also be used as heat source for ground source heat pump if your house is built near to the lake. The heat is extracted by a collector anchored to the bottom of the lake.



## Ground water

Ground water is also an ideal heat source for the heat pump since it has a constant water temperature between 4°C and 12°C. Normally, the ground source heat pump collects stored energy from the ground water in one well and returns the ground water to another.



## Residential ground source heat pump

Small shape, compact structure;  
Save installation space, strong capacity;  
Ensure the heating demand in the coldest winter;  
High COP, energy saving and environment friendly;



## Specifications

MODEL	ESDWW-	4C	7C	11C	13C	17C
Cooling Capacity	KW	3.0	6.0	9.0	11.5	15.0
Heating Capacity	KW	3.4	6.8	10.2	13.0	17.0
Compressor	Type Quantity	Rotary 1	Rotary 1	Rotary 1	Scroll 1	Scroll 1
Cooling Power Input	KW	0.73	1.46	2.25	2.88	3.75
Heating Power Input	KW	0.67	1.36	2.04	2.60	3.40
Power Supply	V/PH/Hz	220/1/50	220/1/50	220/1/50	220/1/50	380/3/50
Water Flow (Hot Water Side)	m <sup>3</sup> /h	0.5	1.0	1.5	2.0	2.7
Water Flow (Ground Side)	m <sup>3</sup> /h	0.5	0.9	1.4	1.8	2.4
Water Pressure Drop	kPa	20	22	22	24	28
Noise	dB(A)	38	40	40	41	41
Water Connections	Inch	3/4"	3/4"	3/4"	1	1
Net Dimensions	mm	500*385*440	500*385*440	600*430*670	600*560*670	600*560*670

Measurement Condition:  
Heating: Ground Source Temp. 15°C, Hot Water Temp. 35°C  
Cooling: Ground Source Temp. 20°C, Chilled Water Temp. 12°C  
Remarks: Heat recovery is available (optional) for all models.

MODEL	ESDWW-	20C	25C	34C	41C	55C
Cooling Capacity	KW	17.5	22.0	30.5	36.0	49.0
Heating Capacity	KW	20.0	25.0	34.0	41.0	55.0
Compressor	Type Quantity	Scroll 1	Scroll 2	Scroll 2	Scroll 2	Scroll 3
Cooling Power Input	KW	4.38	5.50	7.63	9.00	12.25
Heating Power Input	KW	4.00	5.00	6.80	8.20	11.00
Power Supply	V/PH/Hz	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
Water Flow (Hot Water Side)	m <sup>3</sup> /h	3.0	4.0	5.2	6.2	7.5
Water Flow (Ground Side)	m <sup>3</sup> /h	2.7	3.6	4.7	5.6	6.8
Water Pressure Drop	kPa	30	33	35	40	50
Noise	dB(A)	42	43	43	43	45
Water Connections	Inch	1	1	1	1-1/2"	2"
Net Dimensions	mm	600*560*670	900*680*670	900*680*670	900*680*670	1200*760*750

Measurement Condition:  
Heating: Ground Source Temp. 15°C, Hot Water Temp. 35°C  
Cooling: Ground Source Temp. 20°C, Chilled Water Temp. 12°C  
Remarks: Heat recovery is available (optional) for all models.

## Residential ground source heat pump





## Commercial ground source heat pump



### Specifications

MODEL	ESDWW-	90L	130L	170L	210L	250L
Cooling Capacity	KW	72	108	144	180	216
Heating Capacity	KW	83	125	165	207	249
Compressor	Type Quantity	Scroll 2	Scroll 3	Scroll 4	Scroll 5	Scroll 6
Cooling Power Input	KW	20.6	30.9	41.1	51.4	61.7
Heating Power Input	KW	18.4	27.8	36.7	46.0	55.3
Power Supply	V/PH/Hz	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
Water Flow (Hot Water Side)	m³/h	14.3	21.5	25.8	29.7	35.7
Water Flow (Ground Side)	m³/h	11.4	17.2	20.6	23.7	28.5
Water Pressure Drop	kPa	48	55	58	63	65
Noise	dB(A)	55	55	56	56	58
Water Connections	Inch	2-1/2"	2-1/2"	2-1/2"	3"	3-1/2"
Net Dimensions	mm	1600*600*1310	2200*600*1310	2500*650*1360	2200*1200*1450	2200*1200*1450