



# 空气源 HEAT PUMP 热泵 热水器 water heaters

## 广东约沃节能

广东省佛山市南海区里水镇

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# 制冷 采暖 热水 烘干

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# 产品篇

## YUEWO 约沃 空气源热泵型热水机组技术说明

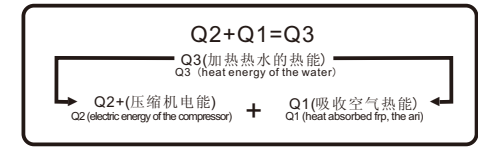
Technical instruction of the Air-source Heat Pump hot water unit

热泵热水机组由热泵主机和储热水箱构成，它按逆卡诺循环原理工作如下：  
Heat pump hot water unit consists of the heat pump unit and the hot water tank, and it works under the Reversed Carnot Cycle principle as below

低温低压气态的冷媒经过压缩机成为高压高温气态。压缩机的压缩功能转化的热量为Q2。高温高压的气态冷媒与水进行热交换，高压的冷媒在常温下被冷却、冷凝为液态。这过程中，冷媒放出热量用来加热水，使水升温变成热水。水吸收的热为Q3。  
高压液态冷媒通过膨胀阀减压，压力下降，回到比外界低的温度，具有吸热蒸发的能力。低温低压的液态冷媒经过蒸发器（空气热交换器）吸收空气中的热量自身蒸发，有液态变为气态，冷媒从空气中吸收的热为Q1。

吸收了热量的冷媒变成低温低压气体，再由压缩机吸入进行压缩，如此往复循环，不断从空气中吸热，而在水侧换热器放热，制取热水。这个循环过程由热泵热水机组来完成。热泵作为高效集热并转移热量的系统装置，可以把压缩机所消耗的电力变为3.5倍甚至4倍以上的热能（即Q1+Q2=Q3的道理）

对于空调：Q1=Q3-Q2，Q1为冷媒从空气中吸收的热量（即制冷量），这样不断从房间内吸收热量，把房间的温度降低。根据国际规定：标准的工况下，制冷的效能比COP值（制冷量与功率之比。即Q1\Q2）不能低于2.4，一般空调制冷的COP值大于2.6。对于热泵：Q3-Q2=Q1，Q1为冷媒从空气中吸收的热量，它要大于冷媒从空气中吸收的热量，差值为Q2，即压缩机压缩冷媒产生的热量。所以同等工况下热泵热水器的COP值大于空调的COP值（制冷量与功率之比，即Q3\Q2），要比空调的COP值永远大于4.0。据测试，在标准工况下佰什特热泵机组的COP值为4.0以上。



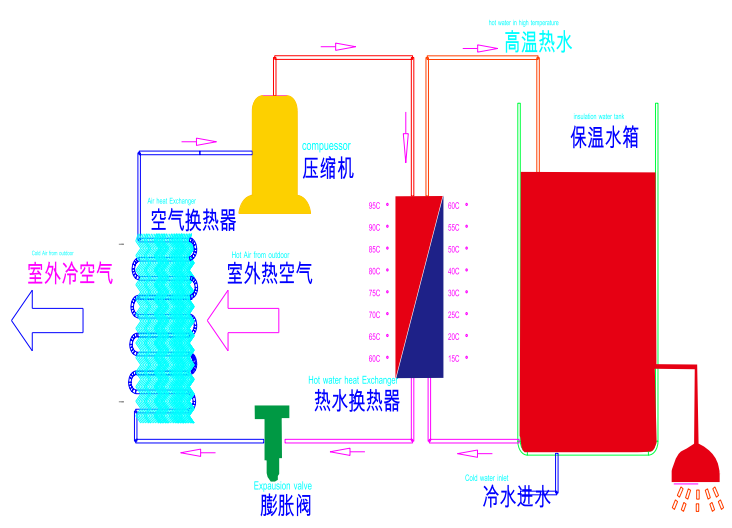
空气源热泵中央热水机组一般由压缩机、蒸发器、储液罐、膨胀阀、过滤器、储水箱等几部分组成。它通过逆卡诺循环原理，采用电能驱动。通过制冷剂把自然界的空气、水等其它难利用的低品位热能吸收，提升为可用的高品位热能对水进行加热的设备。

The air-source heat pump central hot water units air fabricates with the integral components of compressor, expansion valve, filter, water storage tank, condenser, water tanks and so forth. In compliance with the Reversed Carnot Cycle Principle, the heat pump units are activated through the electric power. Through the refrigerant, the heat pump units gather from the surrounding environment the difficult-for-utilization low grade heat energy from air, water and other resources which is then transformed to the high grade heat for heating the water

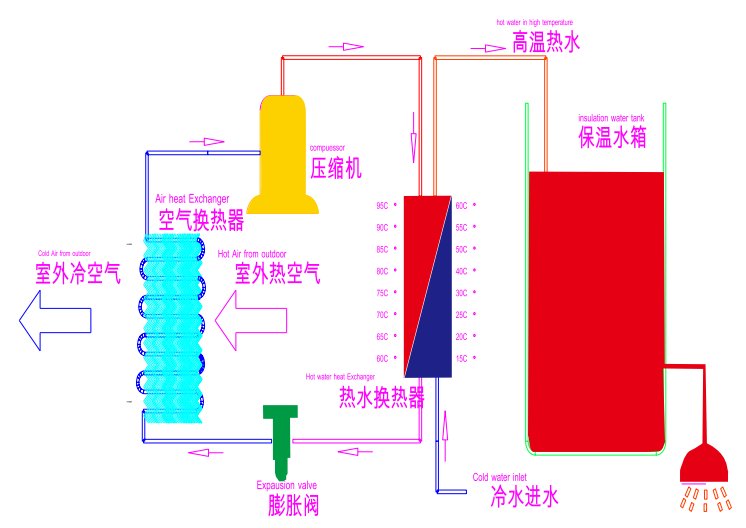
### 型号说明：

- Y 约沃 (品牌)
- K K空气源W水源
- R C单冷S三效机H冷暖
- R 热泵 Z直热
- 功率匹数
- Y 泳池热泵
- D 顶吹 (出风方式) 无标注则默认侧吹

### 循环式热泵机组原理图



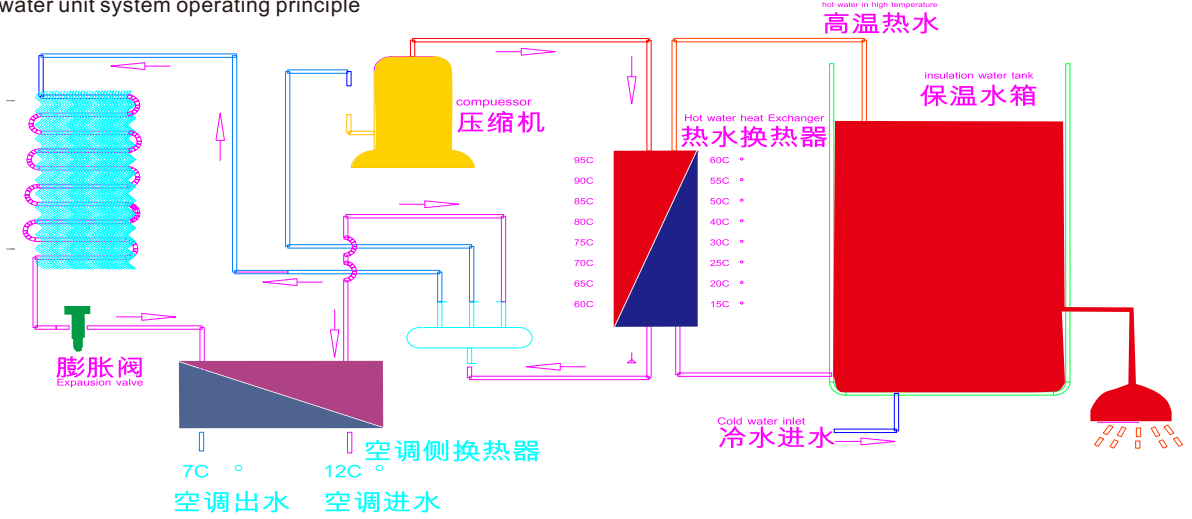
### 直热式热泵机组原理图



# Introduction Performance 产品性能

## 空调热水机组系统工作原理

A/C hot water unit system operating principle



空调热水机组针对不同季节实现不同功能  
Air conditioning heat pump hot water units are capable of performing multiple functions for each season throughout the year

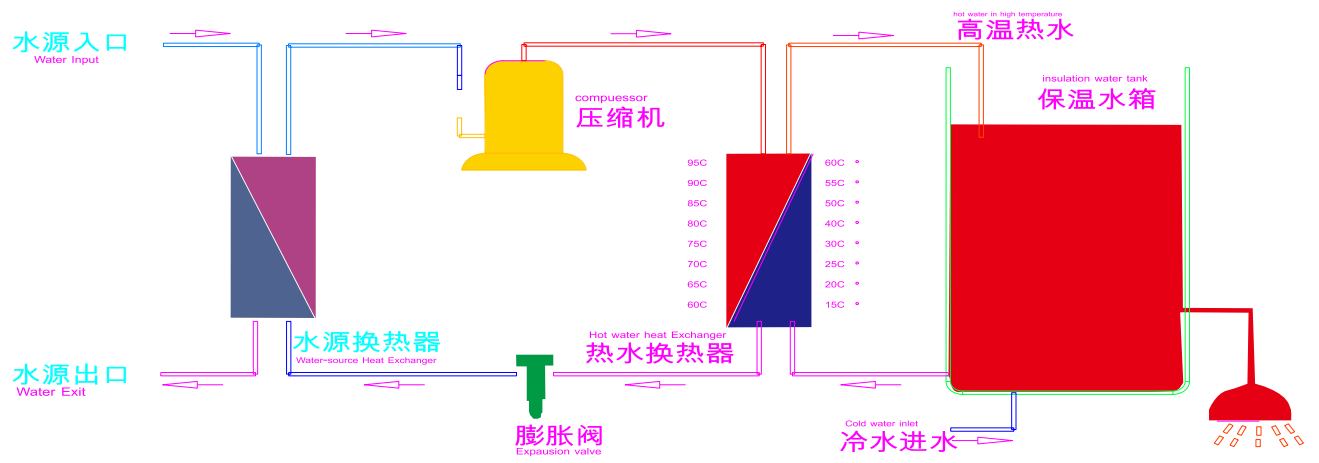
制冷模式 (COP值3.0)	制冷热水模式 (综合COP值高达7.0-8.0)	热水模式 (COP值4.0)	采暖模式 (COP值2.7)	采暖+热水模式 (COP值2.7)
Refrigeration mode (cop3.0)	Refrigeration+ heating mode (comprehensive COP7.0-8.0)	Hot water mode (cop4.0)	Heating mode (cop2.7)	Heating mode+ hot water mode (cop2.7)

空调热水机组由中央热水和中央空调的完美组合，一般由压缩机、空调蒸发器、膨胀阀、过滤器、储液罐、冷凝器、热水换热器、中央空调末端、储水箱等几部分组成。它根据逆卡诺循环原理，采用电能驱动，通过制冷剂把自然界的空气、水等其它难利用的低品位热能降温，从而实现一机多用的功能。吸收，提升为可用的高品位热能对水进行加热的设备，其空调蒸发器向房间提供冷冻水除湿降温，从而实现一机多用的功能。

As the flawless integrated machinery of central hot water supply and conditioning, the air conditioning hot water units are normally fabricated with the compressor, evaporator, expansion valve, filter, liquid storage chamber, condenser, heat exchanger, terminal of air conditioning, water tank and so forth. In compliance with the Reverse Carnot Cycle Theory, the air conditioning hot water units are activated through electric power to absorb, through the refrigerant, those low-grade heat energy such as the air, water and then, is enhanced to the high grade heat energy which is used to generate hot water. The evaporator supplies cool water in order to order in order to dehumidify and to reduce temperature, thus the multiple functions are performed by one single machine.

## 水源热泵机组工作原理

Water source heat pump units'working principle



水源热泵热水机组一般由压缩机、膨胀阀、过滤器、储液罐、冷凝器、储水箱等几部分组成。它根据逆卡诺循环原理，采用电能驱动，通过制冷剂把地下水、湖水、江水、中央空调风机盘管或者地理管等其它低品位热能吸收，提升为你可能的高品位热能对水进行加热的设备。

The air conditioning hot water units are normally fabricated with the compressor, evaporator, expansion valve, filter, liquid storage chamber, condenser, heat exchanger, terminal of air conditioning, water tank and so forth. In compliance with the Reverse Carnot Cycle Theory, the air conditioning hot water units are activated through electric power to gather, he low-grade heat energy from the underground water, lake, river, centralair conditioner's fan coil or the pipes underneath, and then is transformed to the high heat energy that are utilized to heat the water.

## 热泵机组与其它传统热水设备对比

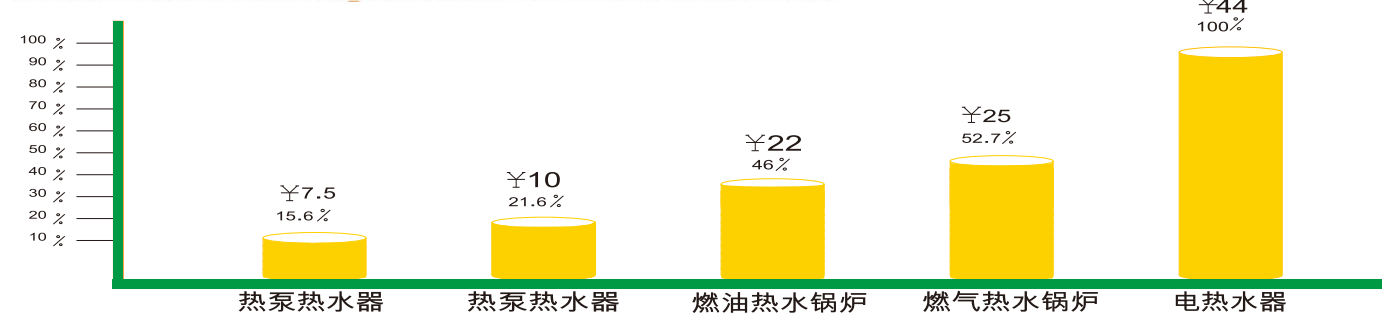
Comparison of heat pmup unit and other traditional hot water equipments

### 单位热值比较 Comparison on unit heat value

热水设备 hot water equipments	使用热泵 heat sources used	单位热值 unit heat value	热源价格 unit price unit heat value	热效率 heat efficiency	有效热值 unit valid heat value
电热水机组 electric hot water unit	工业商用电 electric power for industry and commerce	860Kcal/KW/h	¥0.9/KW/h	95%	817Kcal/KW/h
燃气热水锅炉 Gaseous hot water boiler	液化石油气 Liquefied petroleum gas	25000Kcal/KW/h	¥14/m3	85%	22150Kcal/KW/h
燃油热水锅炉 Oil hot water boiler	0#柴油 0# Diesel oil	10200Kcal/KW/h	¥4.8/kg	85%	8670Kcal/KW/h
热泵热水机组 heat pump hot water units	工业商用电 electricpower for industry and commerce	860Kcal/KW/h	¥0.9/KW/h	400%	3440Kcal/KW/h
热泵热水机组 heat pump hot water units	民用电 Electric power for household usage	860Kcal/KW/h	¥0.65/KW/h	400%	3440Kcal/KW/h

### 加热费用比较 Comparisor the heating costs

以1吨15℃冷水，加热到55℃，所需的40000Kcal热量对应的费用对比  
Take for an example of one Ton cool water with temperature of 15℃. Heating is applied, temperature rises to 55℃. Heat energy of 40000Kcal is consumed and the heating costs are illustrated as below.

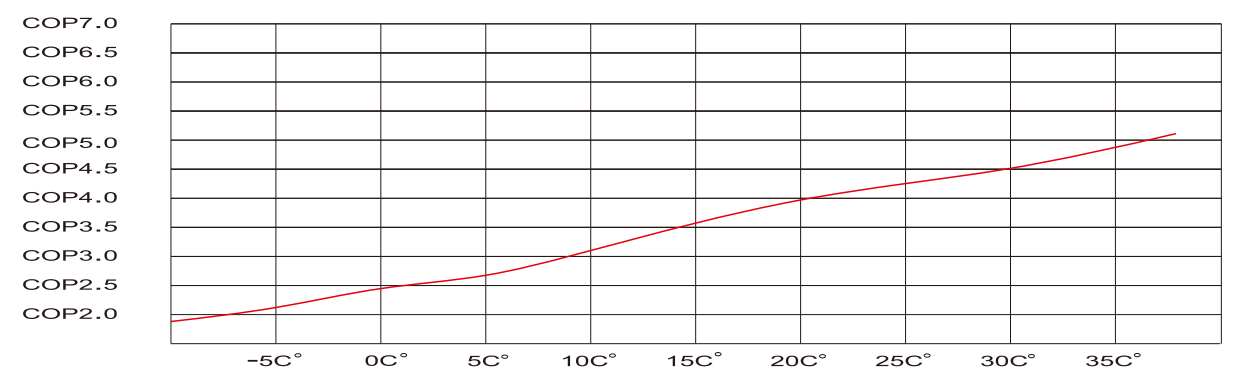


### 空气源热泵机组修正表 Modified chart for the air-source heat pump units

(以上数据仅供参考, COP受湿干球温度变化) (the above data is for reference only.COP value varies depending on changes of dry &wet balls'temperature.)

热水设备 Hot wter apparatus	安全性 Safety level	环保性 Degree of eco-friendly	方便性 Degree of convenience	维护成本 Maintenance costs	使用年限 Service period	安装条件 Terms of installation
热泵热水机组 heat pump hot water units	较高 Higher	较高 Higher	较高 Higher	较低 Lower	10-15年 10-15years	限制较少 Limitation is few or no
燃气热水锅炉 Gaseous hot water boiler	较低 Lower	较低 Lower	较低 Lower	较高 Higher	6-8年 6-8years	限制较多 many limitations
燃油热水锅炉 Oil hot water boiler	较低 Lower	较低 Lower	较低 Lower	较高 Higher	6-8年 6-8years	限制较多 many limitations
太阳能+电辅助 Solarenergy+Electrical	一般 just so so	较高 Higher	较高 Higher	较低 Lower	5-6年 5-6yeas	限制较多 many limitations

### 空气源热泵COP参照表



以上数据仅供参考, COP受干湿球温度变化  
The above data is for reference only .COP value varies depending on changes of dry &wet ball's temperature



## 国际品质顶级配置

International quality, top configuration



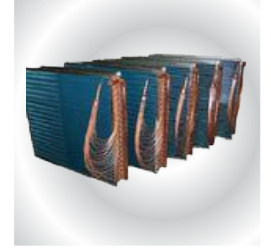
美国谷轮 (COPELAND) 全封闭柔性涡旋式压缩机，性能优越，耐高温，超低噪音，寿命长。  
Adoption of U. S. -brand COPELAND, fully enclosure soft scroll compressor, superior performance, high temperature endurance, ultra low noise, long service expectancy.



原装进口美国艾默生ALCO膨胀阀，性能卓越稳定，控制精度高，高效除霜，提高吸气效率。  
Original Emerson ALCO Expansion Valve imported from the United States, outstanding and stable performance, high control precision, effective function of defrostation, high efficiency of air absorption.



采用国内名牌电机，使用轴流叶轮设计，轴承不易升温，免注油维护，叶片更加抗老化，不变形，风量噪音低，动平衡把握能力更强。  
Adoption of renowned China-made fan, design with steel axial flow impeller, bearing invulnerable to rising temperature, exempt of lubrication & maintenance, anti-aging leaves and without deformation, sufficient air circulation, low noise, dynamic balance.



采用超低温整体式亲水膜翅片内螺纹管设计，迎风面积大，换热效率高，抗氧化、耐腐蚀，亲水膜翅片不易凝露、结霜，在冬季低温时除霜效果显著。  
Integrated hydrophilic fin internal thread pipe, high efficient heat exchanging, oxidization-resistance, anti-corrosion, hydrophilic fin cause doesn't harbor dew and frostation, outstanding effectiveness in removing frostation during winter.



采用微电脑控制器，摩托罗拉芯片，大液晶屏显示，三极管稳压技术，抗干扰强，保护功能强大，稳定性好，除霜更彻底。  
Control by microcomputer, built-in Motorola chips, big screen LCD display, and triode constant voltage, technology, outstanding capability in resisting interference, powerful protection, superior stability, completely removing forestation.

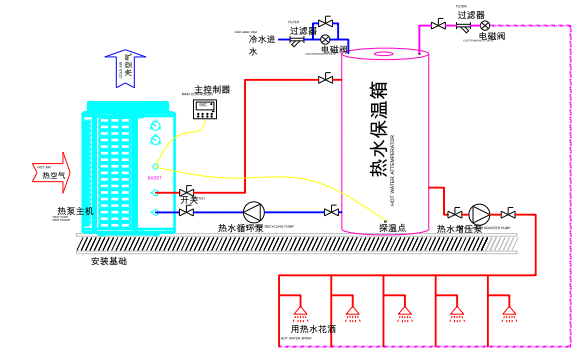


采用含量99.9%高纯度量壁紫铜管，韧性不易破裂、震裂、氧化。换热效率更高，冷媒更不易渗漏，机组运行更稳定。  
Adoption of thick highly-purified 99.9% red copper pipe, Strong flexibility, invulnerable to sabotage caused by vibration, crack, oxidization, Highly efficient heat exchanging, No leakage of refrigerant. High stability of operation inside heat pump units



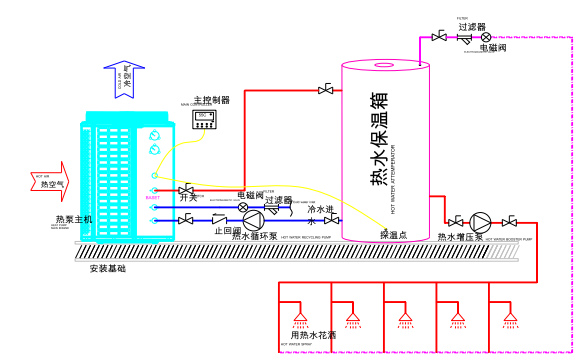
### ★ 循环式热泵机组安装示意图

Installation chart for recycle heat pump units



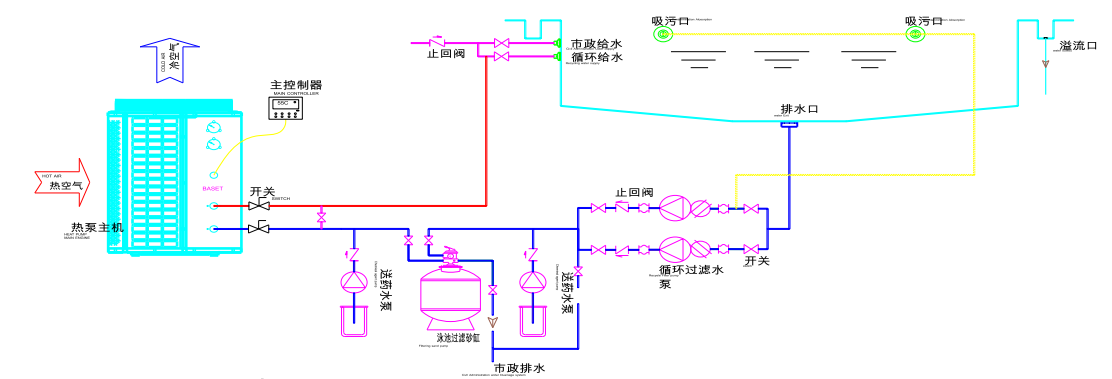
### ★ 直热式热泵机组安装示意图

Installation chart for direct-heat heat pump units



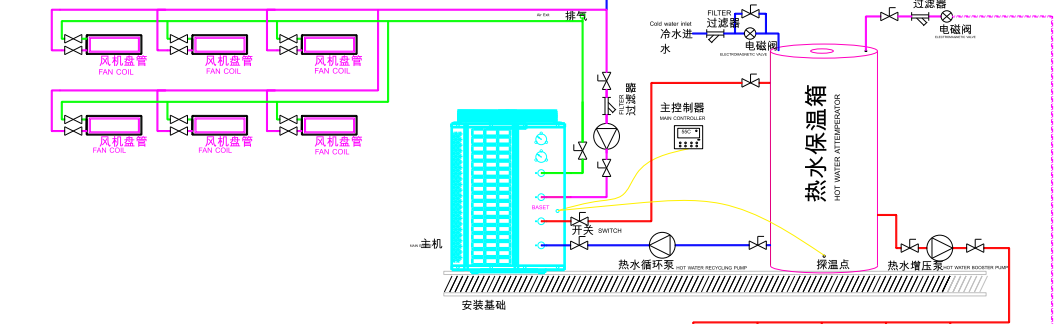
### ★ 泳池热泵机组安装示意图

Installation guideline for swimming pool heat pump units



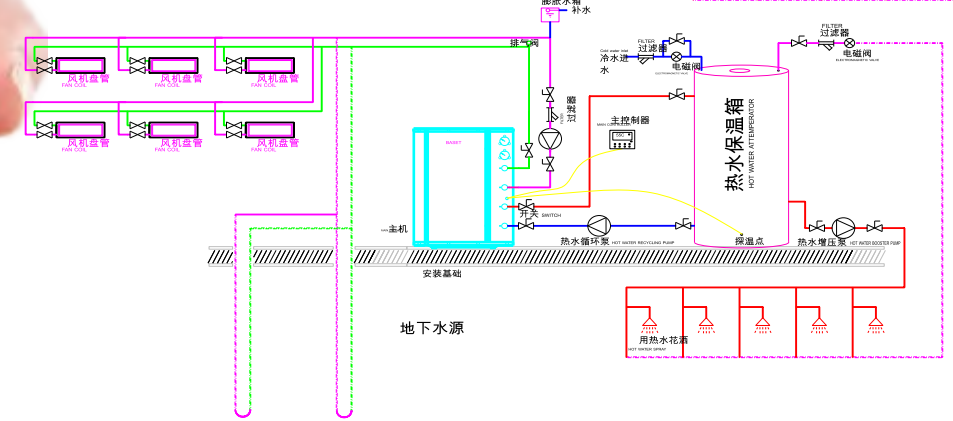
### ★ 空调热水机组安装示意图

Installation chart for air conditioning heat pump units



### ★ 水源热泵热水机组安装示意图

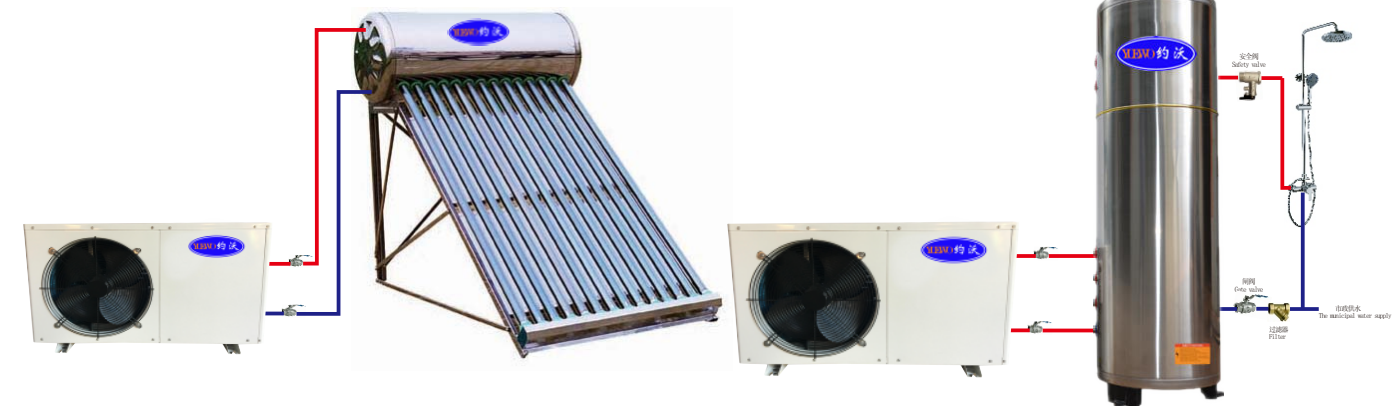
Installation chart for water-source heat pump units





## 家用空气源热泵机组 Domestic Air-source Heat Pump units

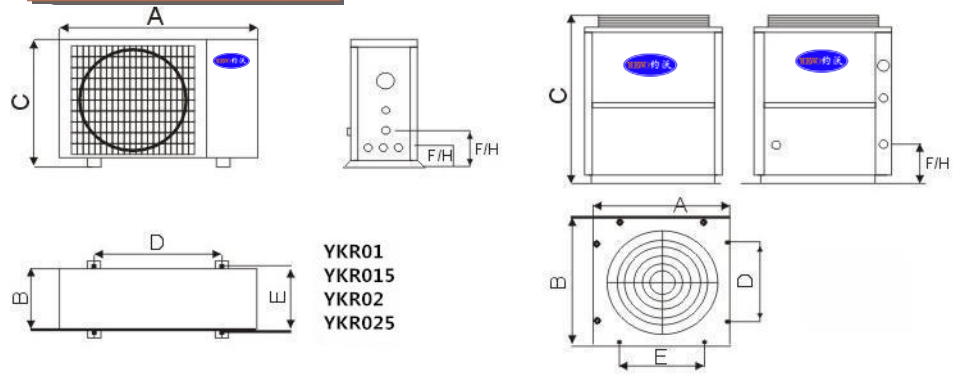
### 安装示意 Installation sketch



### 外形尺寸 Outside measurement

项目 Items	型号 Model	YKR01	YKR015	YKR02	YKR025	YKR02D	YKR025D
长 A Length		780	930	930	1000	530	530
宽 B Wide		260	280	280	300	530	530
高 C Height		540	550	550	620	750	750
定位孔位 Locator hole	D	505	650	650	650	300	300
	E	280	330	330	330	300	300
进出水孔位 Holes for	F	72	110	110	115	200	200
	H	280	295	295	365	200	200

### 外形结构 External configuration



适用范围 Suitable for

- 洋房、别墅、小型会所、美容美发中心等。
- Western-style house, villa, small chamber and beauty salon

### 性能特点 Performance characteristic:

- 水电完全隔离，用户使用更安全，更放心。
- 主机体积小，安装方便，水箱可灵活搭配，满足客户不同的要求
- 机组采用内置换热器，水箱无铜管，主机与水箱之间只需水管连接，介质与水之间强制换热，使机组的换热效率更高，稳定性更好，寿命更长。
- 采用微电脑控制器，用户可根据使用要求自由设定。
- 可与太阳能结合，费用更省，弥补了太阳能阴雨天无热水，保证热水正常使用。
- Water and electric power are completely separable which enables users safe and worries-free.
- Easy installation due to principal engine's small bulk. Water chambers are compatible with various types of principal engines, thus different customers' demands are met.
- Adoption of built-in heat exchanger No need to use copper pipe for water tanks. Only water pipes are used to interact the principal engine and water tanks. Compulsive heat exchanging between media and water. Much higher efficiency of heat exchanges, High stability and longer products shelf life.
- Adoption of controller activated by microcomputer. Users can set different values at his/her own discretions.
- Compatible with solar energy Costs saving. This assures the normal and continuous supplies of hot water during the raisy season or shady weather when sunshine is insufficient.

### 技术参数 Technical parameter

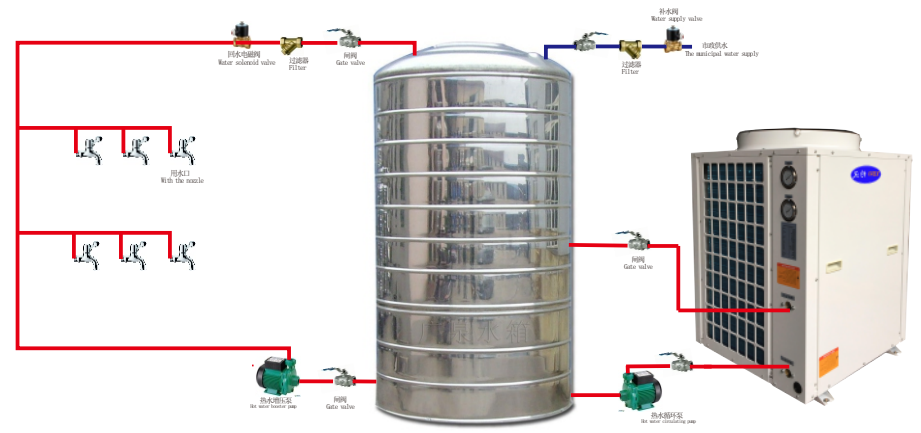
家用热泵热水机组 Household heat pump water heater units					
机组型号 Unit model	单位 Unit	YKR01	YKR015	YKR02	YKR025
额定制热量 Rated heating yielding	KW	3.3	4.9	6.8	8.3
	Kcal/h	2,838	4,214	5,848	7,138
	BTU	11,258	16,718	23,200	28,316
制热输出功率 Heating powerinput	W	0.8	1.2	1.6	1.95
产水量 Water yielding	L	65	99	132	170
电源形式 Power demand	V/Ph/Hz	220/1/50			
冷媒形式 Type or refrigerant		R22/R407C/R417A/R410A			
压缩机数量 Quantity of compressor	Piece	1			
压缩机形式 Type of compressor		旋转式 Rotation			
出风方向 Direction of wind releasing		侧出风 Lateral releasing			
出水温度 Water temperature	℃	默认55℃温度可调 Default: 55℃. Temperature is adjustable			
风机功率 Fan's power	W	20	25	30	50
热水换热器 Hot water heat exchanger		高效换热器 Efficient heat exchanger			
水压降 Water pressure	Kpa	35			
噪声 noise	dB (A)	43	47	52	55
进/出水管接口 Nozzles		DN20			
外形尺寸 (L/W/H) External dimension (L/W/H)	mm	780/260/540	930/280/550	930/290/550	1010/320/655
包装尺寸 (L/W/H) Packing size (L/W/H)	mm	880/360/585	960/380/595	960/380/595	1040/400/695
净重 Net weight	kg	40	60	72	85
毛重 Gross weight	kg	42	63	75	88

- 额定制热测试工况：室外干/湿球温度20℃/15℃，设定水温为55℃； Working conditions for testing the rated heating yielding: outdoor temperature of dry/wet ball 20℃/15℃, water temperature is set at 55℃.
- 机型、参数。性能会因产品的改良有所改变，恕不另行通知。具体参数请以产品铭牌为准。 Due to the machinery innovation or technical modifications, the model and parameter, the performance of the modified products will be subject to changes without prior notice. Please refer to the specific products or models for details.
- 水箱如需配置电加需下单注明。 Should electric heating be added to water tank, please specify such requirements on production order(s).

# Introduction Performance 产品性能

## 循环空气源热泵热水机组 Recycle type air source heat pump water heater units

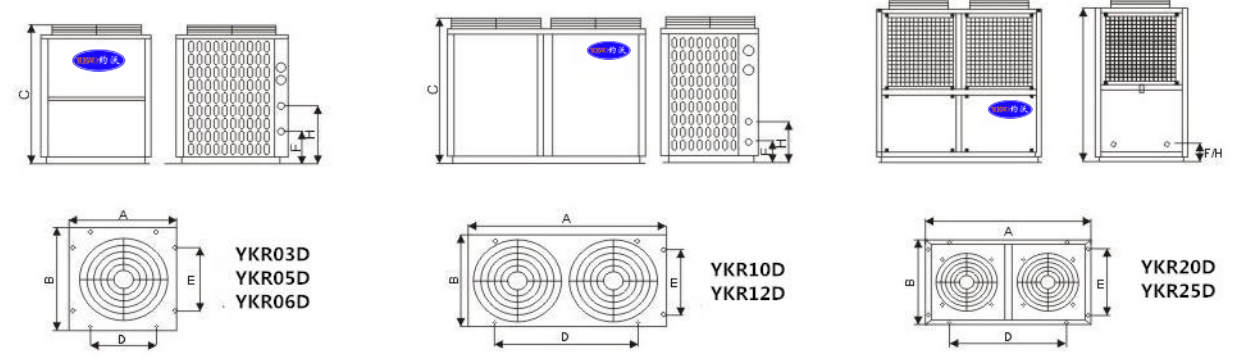
### 安装示意 Installation sketch



### 外形尺寸 Outside measurement

项目 Items	型号 Model	YKR03D	YKR05D	YKR06D	YKR07D	YKR10D	YKR12D	YKR20D	YKR25D
长 A	Length	655	710	710	1450	1450	1440	1800	2000
宽 B	Wide	695	710	710	710	710	800	1100	1100
高 C	Height	815	1010	1010	1180	1180	1390	2150	2150
定位孔位 Locator hole	D	666	725	725	830	830	1190	1500	1500
	E	445	450	450	715	715	700	1060	1060
进出水孔位 Holes for	F	102	110	110	130	130	142	240	240
	H	352	330	330	350	350	407	590	650

### 外形结构 External configuration



### 性能特点 Performance characteristic:

- 采用世界名牌压缩机，四通阀，膨胀阀，机组性能更优越，更稳定。
- 微电脑液晶控制器，无需专人看管。
- 智能化霜技术，对环境无任何污染。
- 蒸发器采用亲水膜片，吸热强，效率高，耐腐蚀。
- 安装方便，占地面积小，节省投资。
- Due to the adoption of internationally-renowned compressor, four-way valve, expansion valve, the heat pump units perform excellently, with much high stability.
- No human supervision is needed due to the adoption of LCD controller activated by microcomputer.
- Intellectual defrostation technique enables highly complete defrostation and higher working efficiency of the entire heat pump units.
- Low noise yielding is causing no pollution against the environment.
- The clear water membrane enables the evaporators absorb more heat in a highly efficient manner. And it is anti-erosion.
- Installation is easy and time-saving. Costs saving

**适用范围  
Suitable for**  
员工宿舍、学生宿舍、宾馆、酒店、桑拿娱乐中心、大型会所、恒温泳池、洗衣店、餐厅、酒楼、养殖场等。  
Heat pump units are suitable for Employees dormitories, students dormitories, guest houses, hotels, massage parlors, entertainment venues, spacious chambers, constant-temperatured swimming pools, laundries, restaurants, aquatic farms and so forth.



### 技术参数 Technical parameter

循环空气源热泵热水机组 Recycle type air source heat pump water heater units								
机组型号 Unit model	单位 Unit	YKR03D	YKR05D	YKR06D	YKR10D	YKR12D	YKR20D	YKR25D
额定制热量 Rated heating yielding	KW	11	18.8	22	38	44	75	86
	Kcal/h	9,460	16,168	18,920	32,680	37,840	64,500	73,960
	BTU	37,529	64,141	75,059	129,648	150,119	255,885	293,415
输入功率 Input power	KW	2.8	4.7	5.5	9.5	11	19.5	21.5
运行电流 Operation current	A	5.5	8.5	10.5	17.7	21	35.2	46
电源形式 Power demand	V/Ph/Hz	380/3/50/60						
压缩机数量 Quantity of compressor	Piece	1	1	1	2	2	4	4
压缩机形式 Type of compressor	全封闭涡轮式 Full Enclosure scroll vortex							
风机数量 Quantity of fan	Piece	1	1	1	2	2	2	2
风机输入功率 Fan's input power	W	90X1	250X1	250X1	250X2	250X2	550X2	550X2
防水等级 Grade of water resistance		IPX4						
出水温度 Water temperature	℃	默认55℃ 温度可调 Default: 55℃. Temperature is adjustable						
产水量 Water yielding	L	240	400	475	817	950	1,600	1,850
水流量 Water flow	m3/h	2~3	4~5	5~6	7~10	9~12	14~20	18~25
水压降 Water pressure	Kpa	50						
进/出水管接口 Nozzles		DN25	DN25	DN25	DN32	DN40	DN50	DN65
冷媒形式 Type of refrigerant	R22/R407C/R417A/R410A							
注氟量 Freon feed	kg	2.2	3.4	3.5	6.6	7	13.2	14
噪声 noise	dB (A)	≤55	≤65	≤65	≤65	≤65	≤68	≤68
外形尺寸 (L/W/H) External dimension (L/W/H)	mm	655/695/810	710/710/1010	710/710/1010	1450/710/1180	1440/800/1380	1800/1100/2150	2000/1100/2150
包装尺寸 (L/W/H) Packing size (L/W/H)	mm	685/725/940	740/740/1140	740/740/1140	1480/740/1310	1470/830/1510	1830/1130/2280	2030/1130/2280
净重 Net weight	kg	100	180	200	280	310	630	780
毛重 Gross weight	kg	105	188	208	295	326	662	800

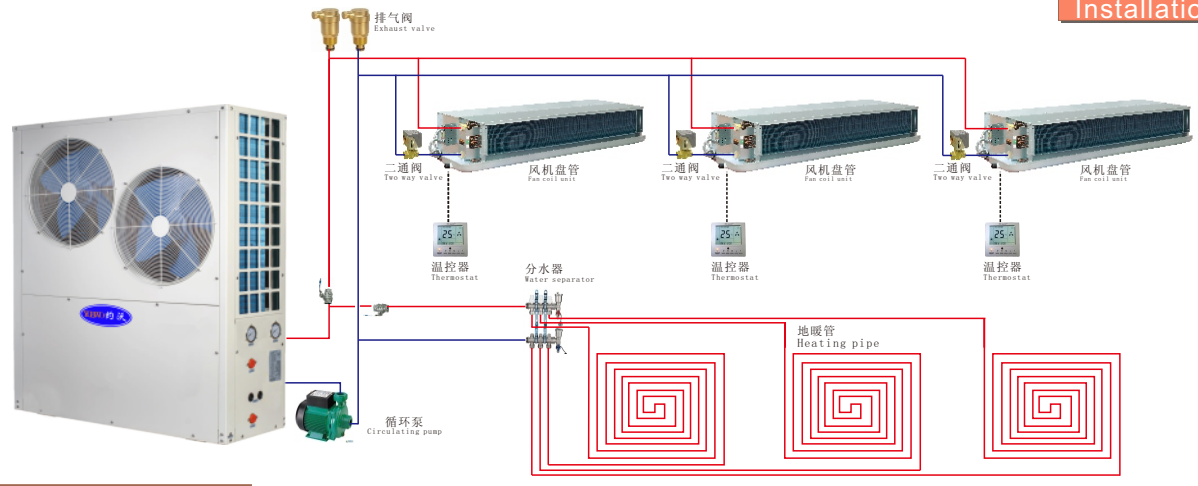
额定制热测试工况：室外干/湿球温度20℃/15℃，设定水温为55℃；  
Working conditions for testing the rated heat yielding: outdoor temperature of dry/wet ball 20℃/15℃, water temperature is set at 55℃.  
机组使用范围：环境温度-10℃~43℃；  
Ranges of temperature in which heat pump units work: ambient temperatures range from -10℃~43℃.  
机型、参数。性能会因产品的改良有所改变，恕不另行通知。具体参数请以产品铭牌为准。  
Due to the machinery innovation or technical modifications, the model and parameter, the performance of the modified products will be subject to changes without prior notice. Please refer to the specific products or models for details.



# Introduction Performance 产品性能

## 超低温风冷冷热水机组 Air-cooled chiller

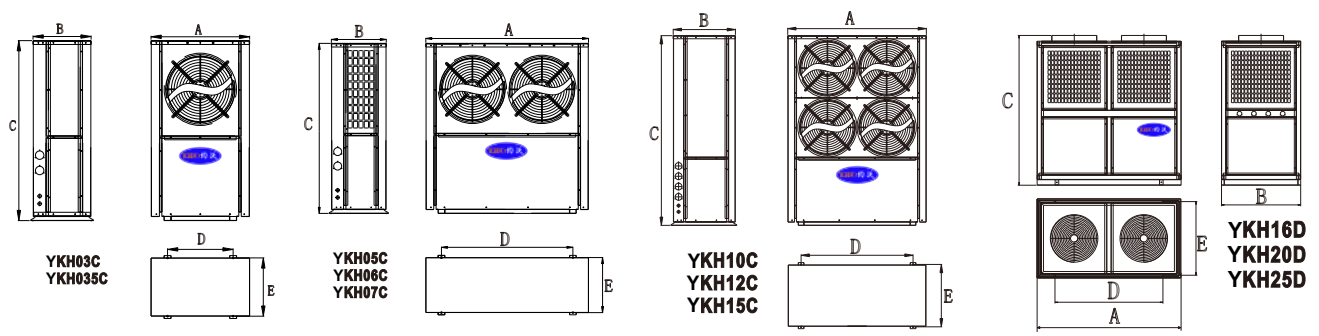
### 安装示意 Installation sketch



### 外形尺寸 Outside measurement

项目 Items	型号 Model	YKH03C	YKH035C	YKH05C	YKH06C	YKH07C	YKH10C	YKH12C	YKH15C	YKH20D	YKH25D
长 A	Length	775	775	1350	1350	1350	1350	1350	1350	1800	2000
宽 B	Wide	495	495	495	495	495	645	645	645	1100	1100
高 C	Height	1410	1410	1410	1410	1410	1845	1845	1845	2150	2150
定位孔位 Locator hole	D E	543 456	543 456	1088 456	1088 456	1088 456	1088 605	1088 605	1088 605	1500 1060	1500 1060

### 外形结构 External configuration



### 性能特点 Performance characteristic

- 超静音设计、运行宁静
- 运行可靠、高效节能
- 灵活组合、安装方便
- 控制完整、操作简单
- 外观造型新颖、美观
- 多系统设计，维护成本低
- 机组保护功能完全，使用更放心
- Ultra-quiet design, quiet operation
- Reliable operation, high efficiency and energy saving
- Flexible combination, convenient installation
- Complete control, simple operation
- The appearance of novel, beautiful
- Multiple system design, low maintenance cost
- Unit protection function, use more at ease

### 适用范围 Suitable for

可广泛应用于新建的大小工业与民用商用建筑空调工程，如家庭、宾馆、公寓、酒店、餐厅、办公大楼、商场超市、影院、体育馆、医院及厂房等各类建筑

Can be widely used in industrial and civil size of new commercial building air conditioning engineering, such as family, hotel, Apartments, hotels, restaurants, office buildings, shopping malls supermarkets, cinemas, gymnasiums, hospitals and factories and other buildings



### 技术参数 Technical parameter

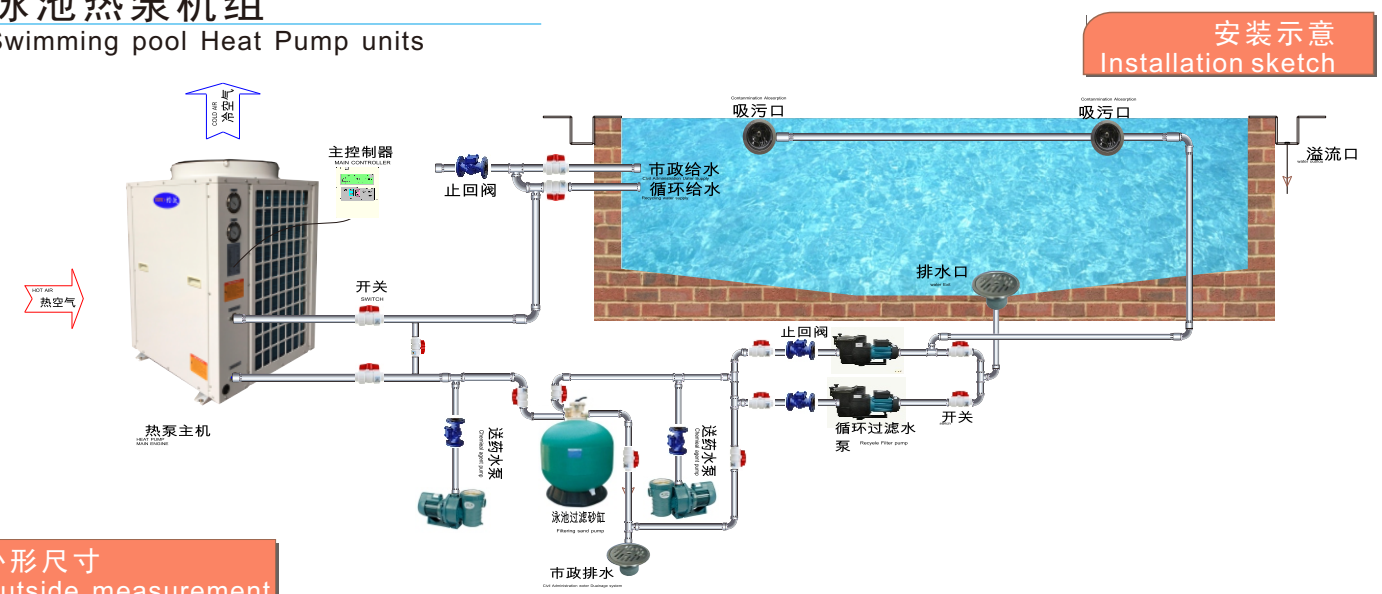
机组型号 Unit model	单位 Unit	YKH03C	YKH035C	YKH05C	YKH06C	YKH07C	YKH05C	YKH06C	YKH07C	YKH10C	YKH12C	YKH15C	YKH20D	YKH25D	
额定制冷量 refrigerating capacity	kW	7.5	8.8	13	15	18	13	15	18	26	30	36	52	60	
-7℃ 输入功率 Input power	kW	2.3	2.8	3.9	4.6	5.6	3.9	4.6	5.6	7.9	9.1	11.3	16.2	17.8	
-7℃ 制热量 Heating output	kW	7.7	9.3	12.9	15.3	18.6	12.9	15.3	18.6	26	30.1	37.3	53.4	58.9	
-12℃ 输入功率 Input power	kW	2.5	3.0	4.2	4.9	6.0	4.2	4.9	6.0	8.4	9.7	12	17.2	19	
-12℃ 制热量 Heating output	kW	5.3	6.5	8.9	10.6	12.9	8.9	10.6	12.9	18	20.9	25.8	37	40.8	
-20℃ 输入功率 Input power	kW	2.6	3.2	4.4	5.2	6.4	4.4	5.2	6.4	8.9	10.3	12.7	18.3	20.1	
-20℃ 制热量 Heating output	kW	4.2	5.1	7.0	8.4	10.2	7.0	8.4	10.2	14.2	16.5	20.4	29.2	32.2	
运行电流 Operation current	A	14	17	20	28	34	8.5	10.5	12	17.7	21	24	35	46	
电源形式 Power demand	V/Ph/Hz	220V-50/60Hz						380V-50/60Hz							
压缩机数量 Quantity of compressor	Piece	1	1	1	2	2	1	1	1	2	2	2	2	2	
压缩机形式 Type of compressor		全封闭涡旋式													
风机数量 Quantity of fan		1	1	2	2	2	2	2	2	4	4	4	2	2	
风机输入功率 Fan's input power	W	90	90	180	180	180	180	180	180	360	360	360	1100	1100	
防水等级 Grade of water resistance		IPX4													
水流量 Water flow	M <sup>3</sup> /h	2~3	2.5~3.5	4~5	5~6	5~7	4~5	5~6	5~7	7~10	9~12	10~15	14~20	18~25	
水压降 Water pressure	kPa														
进/出水管接口 Nozzles		DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN25	DN32	DN40	DN40	DN50	
冷媒形式 Type or refrigerant		R22													
注氟量 Freon feed	kg	2.2	2.4	4	4.4	2.4*2	4	2.4*2	5.4	4.0*2	4.4*2	5.4*2	13.2	14	
噪音 Noise	dB(A)	≤55	≤55	≤65	≤55	≤65	≤65	≤65	≤65	≤65	≤65	≤65	≤68	≤68	
外形尺寸(L/W/H) External dimension	mm	775/495/ 1410	775/495/ 1410	1350/495/ 1410	1350/495/ 1410	1350/495/ 1410	1350/495/ 1410	1350/495/ 1410	1350/495/ 1410	1350/645/ 1845	1350/645/ 1845	1350/645/ 1845	1800/1100/ 2150	1800/1100/ 2150	
包装尺寸(L/W/H) Packing size	mm	805/525/ 1540	805/525/ 1540	1380/525/ 1540	1380/525/ 1540	1380/525/ 1540	1380/525/ 1540	1380/525/ 1540	1380/525/ 1540	1380/675/ 1975	1380/675/ 1975	1380/675/ 1975	1830/1130/ 2280	1830/1130/ 2280	
净重 Net weight	kg	130	135	210	250	250	210	230	250	310	325	355	630	780	
毛重 Gross weight	kg	135	140	218	258	258	218	238	258	325	340	370	662	800	

■ 额定制冷：环境工况为 35℃ 干球 / 24℃ 湿球，冷水出水温度 7℃，回水温度 12℃  
refrigeration nominal working condition: the environment condition was 35℃ / 24℃ dry wet ball, outlet temperature of chilled water in 7℃, water temperature 12℃

■ 由于产品不断改良引起性能参数变更，恕不另行通知  
due to continuous improvement of products caused performance parameters change, without notice

# Introduction Performance 产品性能

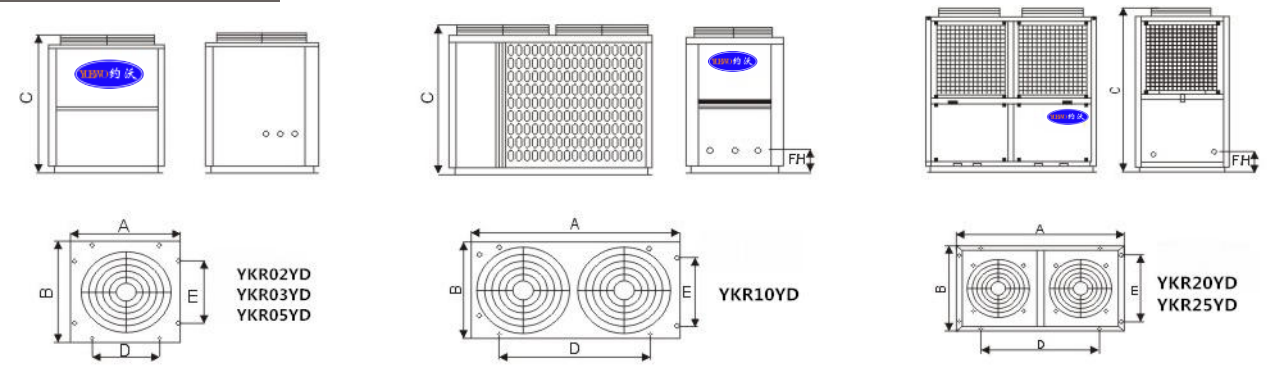
## 泳池热泵机组 Swimming pool Heat Pump units



### 外形尺寸 Outside measurement

项目 Items	型号 Model	YKR02YD	YKR03YD	YKR05YD	YKR10YD	YKR20YD	YKR25YD
长 A Length		530	655	710	1450	1800	2000
宽 B Wide		530	695	710	710	1100	1100
高 C Height		750	815	1010	1180	2150	2150
定位孔位 Locator hole	D	300	666	725	830	1500	1500
	E	300	445	450	815	1060	1060
进出水孔位 Holes for	F	402	402	402	402	402	402
	H	525	525	525	525	525	525

### 外形结构 External configuration



### 性能特点: Performance characteristic:

- 采用世界名牌压缩机，机组性能更优越，更稳定。
- 微电脑液晶控制器，无需专人看管。
- 智能化霜技术，化霜更安全，机组效率更高。
- 低静音运行，对环境无任何污染。
- 蒸发器采用亲水膜片，吸热强，效率高，耐腐蚀。
- 安装方便，占地面积小，节省投资。

- Apply world famous compressor, better and more stable performance.
- Microcomputer LCD automatic controller, free attendance, supply heat at certain temperature for a whole day.
- Intelligent de-frosting technology, completely remove frost, higher efficiency.
- Silent work, no pollution to the environment.
- Evaporator applies clear water membrane, high heat absorbing ability, high efficiency, anti-corrosion.
- Convenient installation, small occupation, saves cost.

### 适用范围 Suitable for

桑拿娱乐中心、大型会所、恒温泳池、洗衣店、养殖场等。  
Entertainment center, big chamber, constant temperature pool, laundry shop, and culture farm

### 技术参数 Technical parameter

泳池热泵机组 Swimming pool heat pump units								
机组型号 Unit model	单位 Unit	YKR03YD	YKR05YD	YKR06YD	YKR10YD	YKR12YD	YKR20YD	YKR25YD
额定制热量 Rated heating yielding	KW	13	21	25	45	55	85	105
	Kcal/h	11,180	18,060	21,500	38,700	47,300	77,400	90,300
	BTU	44,353	71,647	85,295	153,531	187,649	290,003	358,239
制热输入功率 Input power for heat yield	KW	2.6	4.4	5	8.8	11	17.5	22
运行电流 Operation current	A	5	7.7	8.9	16.1	20.7	31.3	40.8
电源形式 Power demand	V/Ph/Hz	380/3/50/60						
压缩机数量 Quantity of compressor	Piece	1	1	1	2	2	2~4	2~4
压缩机形式 Type of compressor		全封闭涡轮式 Full Enclosure scroll vortex						
换热器形式 Type of heat exchanger		钛管换热器 Titanium tube heat exchanger						
风机数量 Quantity of fan		1	1	1	2	2	2	2
风机输入功率 Fan's input power	W	90	250	250	250x2	250x2	550x2	750x2
风机转速 Fan's rotation speed	RPM	850	830	830	830	830	930	930
防水等级 Grade of water resistance		1PX4						
出风方向 Ventilation pathway		上出风 Top of heat pump units						
冷媒形式 Type of refrigerant		R22/R407C/R417A/R410A						
注氟量 Freon feed	kg	2.2	3.3	3.5	6.6	7	13.2	14
噪声 noise	dB(A)	55	58	58	61	61	62	63
进/出水管接口 Nozzles		DN40	DN40	DN40	DN50	DN50	DN80	DN80
水流量 Water flow	m <sup>3</sup> /h	4	6	8	12	14	23	28
水压降 Water pressure	kPa	12	12	12	15	15	16	16
外形尺寸 (L/W/H) External dimension (L/W/H)	mm	655/695/810	710/710/1010	710/710/1010	1450/710/1180	1440/800/1380	1800/1100/2150	2000/800/1380
包装尺寸 (L/W/H) Packing size (L/W/H)	mm	685/725/940	740/740/1140	740/740/1140	1480/740/1310	1470/830/1510	1830/1130/2280	2030/1130/2280
净重 Net weight	kg	100	180	200	280	310	630	780
毛重 Gross weight	kg	105	188	208	295	326	662	800

- 额定制热测试工况：室外干/湿球温度24℃/19℃，热水进水温度27℃。  
Work environment for tests of rated heat yield: temperatures of dry/wet balls which are placed outdoor 24℃/19℃. Incoming hot water temperature is 27℃.
- 机型、参数。性能会因产品的改良有所改变，恕不另行通知。具体参数请以产品铭牌为准。  
Due to the machinery innovation or technical modifications, the model and parameter of the modified products will be subject to changes without prior notice. Please refer to the specific products or models for details.



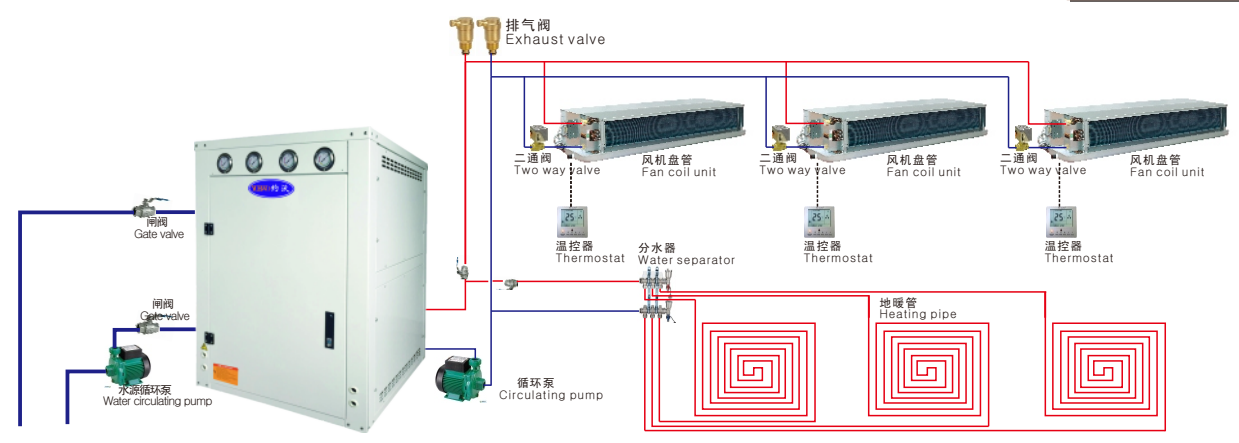


# Performance 产品性能 Introduction

## 水/地源热泵空调机组

The water / ground-source heat pump air-conditioning unit

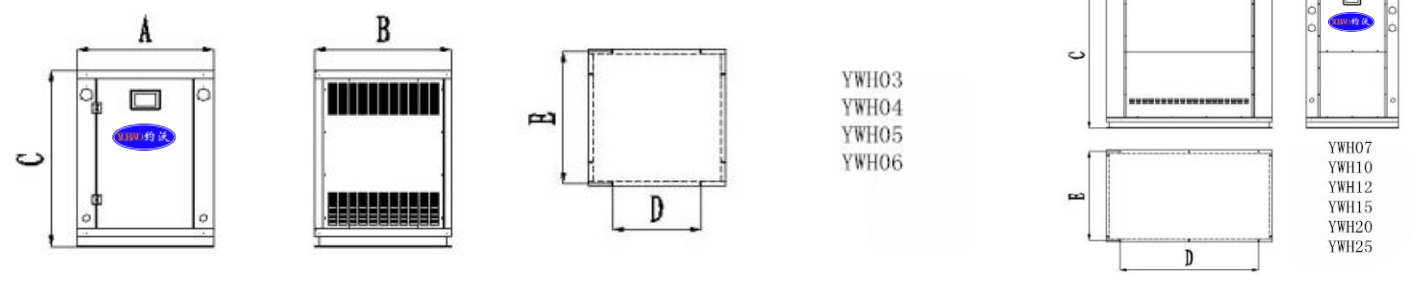
### 安装示意 Installation sketch



### 外形尺寸 Outside measurement

项目 Items	型号 Model	YWH03	YWH04	YWH05	YWH06	YWH07	YWH08	YWH10	YWH12	YWH15	YWH20	YWH25
长 A Length		700	700	700	700	1440	1440	1440	1440	1440	1440	1440
宽 B Wide		700	700	700	700	800	800	800	800	800	1100	1100
高 C Height		900	900	900	900	1270	1270	1270	1270	1270	1400	1400
定位孔位 Locator hole	D	450	450	450	450	1200	1200	1200	1200	1200	1200	1200
	E	675	675	675	675	775	775	775	775	775	1075	1075

### 外形结构 External configuration



适用范围 Suitable for

家庭别墅、酒店、医院、桑拿洗浴中心、工厂、员工宿舍、办公大楼等地下水资源丰富的地区  
Groundwater is rich in resources of the area family villa, hotel, hospital, sauna bath centers, factories, staff dormitory, office building etc.

### 性能特点 Performance characteristic:

- 高效节能: 机组选用高效旋转式或涡旋式压缩机, 水侧换热器采用高效换热技术处理, 冷凝温度大大下降。整机能效比4.0以上。当多台机组组合在一个系统时, 由于各机组可以单独开停, 系统能量调节比风冷冷水机组更接近于无级调节, 运行费用要下降35%左右。
- 超强静音: 机组采用双重减振结构设计技术, 辅以最新高效吸音棉, 使得噪声得以大幅降低。
- 智能控制: 机组采用微电脑控制器, 在屏幕LCD显示, 可以在房间内实现独立调节控制, 操作简便。通过简单的选配件, 要帮助您实现整个空调系统集中监控, 方便现场大量机组的监控和管理。
- 安装简捷: 地源热泵系统设备简单, 控制部件少, 水管路系统配置简单, 设计周期短, 启动调整容易, 可分区设计, 分次安装。
- 维护方便: 机组系统简单, 运行工况稳定, 机组故障少, 不需配备专用的维护工程师, 单机组维护不会影响其他用户正常使用
- High efficiency and energy saving: unit selects the high efficiency rotary or scroll compressor, the water side heat exchanger with high efficiency heat treatment technology, the condensing temperature is greatly decreased. The energy efficiency ratio is more than 4. When the number of units in a system, the unit can separate off, adjust closer to stepless adjustment than air-cooled chiller system energy, operating costs will drop about 35%.
- Super mute: unit with double damping structure design technology, combined with the latest high-performance sound-absorbing cotton, make the noise can be greatly reduced.
- Intelligent control: unit adopts the microcomputer controller, displayed on the screen of LCD, can be independently adjusted control is realized in the room, simple operation. Through simple accessories, to help you achieve the whole of central air conditioning system for monitoring, control and management to facilitate on-site large unit.
- Installation is simple: ground source heat pump system with simple equipment, control components, pipe system configuration is simple, short design cycle, start easy adjustment, partition design, component installation.
- Easy maintenance: the unit system is simple, stable operating conditions, fault less, do not need to be equipped with special maintenance engineer, unit maintenance does not affect other users normal use



### 技术参数 Technical parameter

### 水/地源热泵空调机组 The water / ground-source heat pump air-conditioning unit

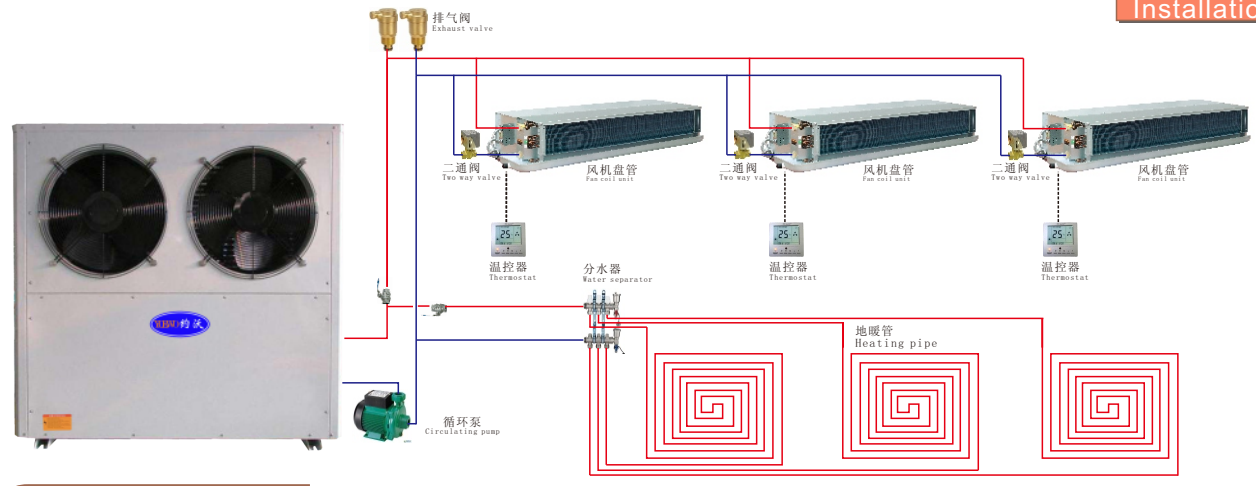
机型 model	项目 item	YWH03	YWH04	YWH05	YWH06	YWH05	YWH06	YWH07	YWH08	YWH10	YWH12	YWH15	YWH20	YWH25	
额定制冷量 The rated refrigerating capacity	KW	13	15	22	25	22	25	30	36	44.2	50	58	89.1	100	
额定制热量 The rated heating capacity	KW	14	16	23	26	23	26	31	40	48.4	52	62	100	105	
额定制冷功率 The rated refrigerating power	KW	2.6	3	4.4	5	4.4	5	6	7.7	8.8	10	12.5	17.4	20	
额定制冷电流 The rated refrigerating current	A	11.5	13.6	20	22	8	9	11	14	16	18	23	31	36	
额定制热功率 The heating power rating	KW	3.4	3.9	5.7	6.5	5.7	6.5	8	9.9	11.5	13	15.8	23.1	26	
额定制热电流 Rated thermal current	A	15.5	17.8	26	30	9	12	14	17	21	24	28	42	52	
控制方式 control mode	远程控制、线控器控制														
安全保护装置 Safety protection device	系统高低压、电流过载保护、防冻保护、电源缺相逆相保护、电压过低过高保护、水流不足保护														
电源 current source	380V/3N~/50HZ														
压缩机 compressor	形式 form	高效全封闭旋转压缩机						高效全封闭涡旋压缩机							
	台数 The number of	1	2	2	2	1	1	2	2	2	2	2	2	2	
节流 onficing	品牌 Brand	松下						三洋、谷轮							
	方式 fashion	热力膨胀阀/电子膨胀阀													
制冷剂 cryogen	品牌 Brand	艾柯/三花													
	名称 designation	R22/R410A/R407													
蒸发器 evaporimeter	充注量 Filling quantity	kg	2.3	1.5*2	1.8*2	2.3*2	4.1	4.6	2.8*2	3.6*2	4.1*2	4.6*2	5.0*2	6.5*2	7.5*2
	类型 type	高效换热器、高效内螺纹套管式或板式蒸发器													
	水流量 Water flow	m3/h	2.5-3.5	2.8-4	3.8-5	4.5-6	3.8-5	4.5-6	5.5-7	6.5-8	7.6-10	9.0-12	10.5-13	13-20	18-25
	水阻力 water resistance	KPa	40	40	40	40	40	40	40	40	40	35	35	35	35
冷凝器 condensator	水管 aqueduct	mm	DN25	DN25	DN25	DN25	DN25	DN25	DN32	DN32	DN32	DN40	DN40	DN65	
	类型 type	高效换热器、高效内螺纹套管式或板式冷凝器													
	水流量 Water flow	m3/h	2.5-3.5	2.8-4	3.8-5	4.5-6	3.8-5	4.5-6	5.5-7	6.5-8	7.6-10	9.0-12	10.5-13	13-20	18-25
外形尺寸 outline dimension	水阻力 water resistance	KPa	40	40	40	40	40	40	40	40	35	35	35	35	
	水管 aqueduct	mm	DN25	DN25	DN25	DN25	DN25	DN25	DN32	DN32	DN32	DN40	DN40	DN65	
	宽 wide	mm	680	680	680	680	680	680	1100	1100	1100	1100	1100	1400	
深 deep	mm	680	680	680	680	680	680	680	680	680	890	890	1100	1100	
	高 height	mm	1185	1185	1185	1185	1185	1185	1185	1185	1185	1400	1400	1400	
噪音 noise	dB(A)	45	46	48	50	48	50	60	61	61	61	63	65	68	
重量 Unit weight	kg	100	120	150	160	150	160	256	284	290	300	315	369	560	

- 额定制冷: 使用侧进水温度12℃, 出水温度7℃, 冷源侧进水温度18℃, 出水温度23℃  
COP: use the side inlet temperature 12℃, water temperature 7℃, cold source side inlet temperature 18℃, the water temperature of 23℃
- 额定制热: 使用侧进水温度40℃, 出水温度45℃, 热源侧进水温度18℃, 出水温度13℃  
The rated heating: use the side inlet temperature 40℃, water temperature 45℃, the heat source side inlet temperature 18℃, the water temperature of 13℃

# Introduction Performance 产品性能

## 风冷式冷热水机组 Air-cooled chiller

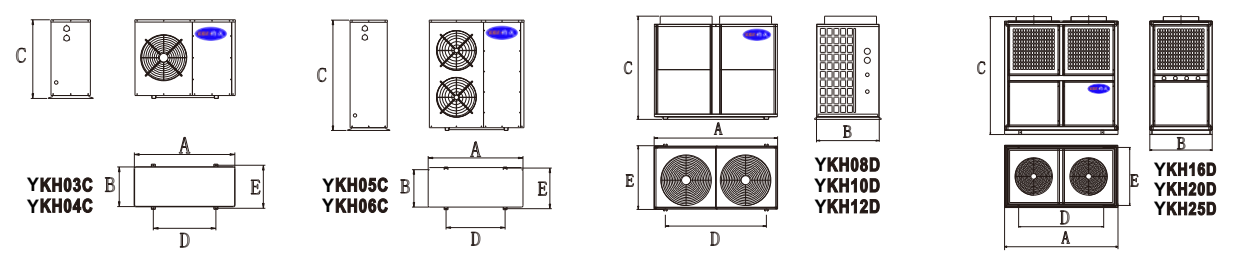
### 安装示意 Installation sketch



### 外形尺寸 Outside measurement

项目 Items	型号 Model	YKH03C	YKH04C	YKH05C	YKH06C	YKH08D	YKH10D	YKH12D	YKH16D	YKH20D	YKH25D
长 A Length		1156	1156	1156	1156	1450	1450	1440	1580	1800	2000
宽 B Wide		456	456	456	456	710	710	800	1000	1100	1100
高 C Height		905	905	1345	1345	1180	1180	1390	1800	2150	2150
定位孔位 D Locator hole	E	720	720	720	720	830	830	1200	1360	1500	1500
		495	495	495	495	725	725	775	960	1060	1060

### 外形结构 External configuration



### 性能特点 Performance characteristic

- 超静音设计、运行宁静
- 运行可靠、高效节能
- 灵活组合、安装方便
- 控制完整、操作简单
- 外观造型新颖、美观
- 多系统设计，维护成本低
- 机组保护功能完全，使用更放心
- Ultra-quiet design, quiet operation
- Reliable operation, high efficiency and energy saving
- Flexible combination, convenient installation
- Complete control, simple operation
- The appearance of novel, beautiful
- Multiple system design, low maintenance cost
- Unit protection function, use more at ease

### 适用范围 Suitable for

可广泛应用于新建的大小工业与民用商用建筑空调工程，如家庭、宾馆、公寓、酒店、餐厅、办公大楼、商场超市、影院、体育馆、医院及厂房等各类建筑  
 Can be widely used in industrial and civil size of new commercial building air conditioning engineering, such as family, hotel, Apartments, hotels, restaurants, office buildings, shopping malls supermarkets, cinemas, gymnasiums, hospitals and factories and other buildings



### 技术参数 Technical parameter

风冷式冷热水机组 Air-cooled chiller		YKH03C	YKH04C	YKH05C	YKH06C	YKH08D	YKH10D	YKH12D	YKH16D	YKH20D	YKH25D
制冷量 refrigerating capacity	KW	8	10	13	15	20	25	31	40	50	66
	Kcal/h	6880	8600	11180	12900	17200	21500	26660	34400	43000	56760
	Btu	27294	34118	44353	51177	68236	85295	105766	136472	170280	221364
制热量 heating capacity	KW	8.5	11	13.8	16	21	26	32.5	42	52	68
	Kcal/h	7310	9460	11868	13760	18060	22360	27950	36120	44720	58480
	Btu	29000	37529	47082	54588	71647	88706	110883	143295	177091	231580
机组功率KW power of the assembling unit		2.8	3.5	4.6	5.5	7.0	9.2	10.6	15.6	18.7	22.5
电源形式 power form		220V-50/60Hz					380V-50/60Hz				
冷媒形式 Refrigerant form		R22/R407C/R417A/R410A									
压缩机 compressor	数量 The number of	1	1	2	2	2	2	2	2	4	4
	形式 form	旋转式					涡旋式				
	功率KW power	2.6	3.6	4.4	5.2	7.2	8.8	10	14	17.8	20
风机 draught fan	台数 The number of	1	1	1	1	2	2	2	2	2	2
	形式 form	轴流式									
	功率KW power	0.09X1	0.09X1	0.08X2	0.08X2	0.25X2	0.25X2	0.25X2	0.5X2	0.55X2	1.1X2
冰水装置 The ice water device	流量T/H rate of flow	1.5	2.0	2.5	3.0	4.0	5.0	6.0	8.0	10.0	12.0
	类型 genre	板式换热器									
	接口尺寸 interface size	DN25	DN25	DN25	DN25	DN32	DN40	DN40	DN50	DN65	DN65
控制方式 control mode		大液晶面板显示微电脑控制									
机组保护功能 Unit protection function		缺相逆相保护、高低压保护、水流保护、防冻保护									
外型尺寸 outline dimension	长 mm length	1156	1156	1156	1156	1450	1450	1440	1580	1800	2000
	宽 mm wide	456	456	456	456	710	710	800	1000	1100	1100
	高 mm height	905	905	1345	1345	1180	1180	1380	1800	1900	2100
机组重量kg Unit weight		110	115	150	160	210	250	280	400	560	680

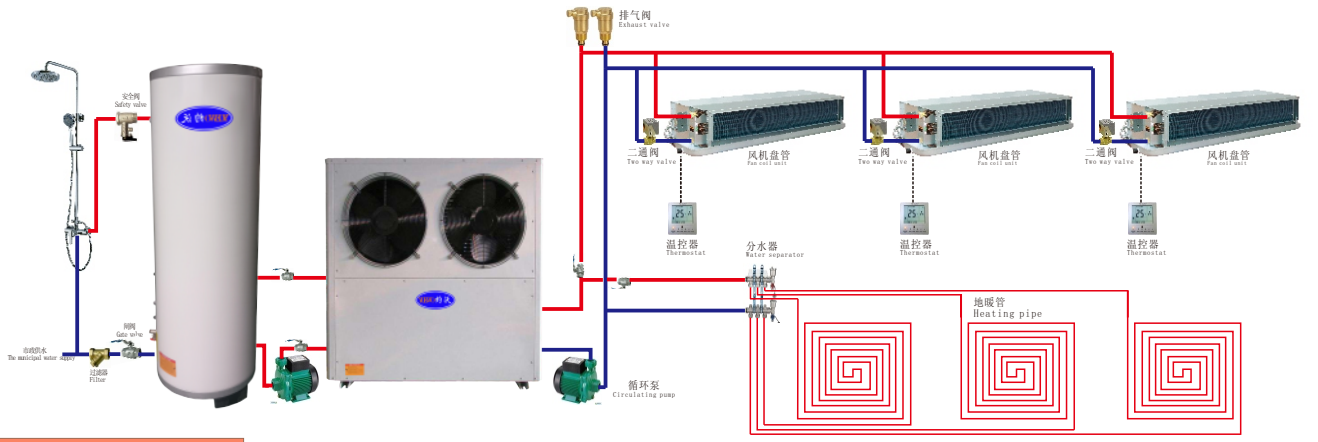
■ 额定制冷：环境工况为 35℃ 干球 / 24℃ 湿球，冷水出水温度 7℃，回水温度 12℃  
 refrigeration nominal working condition: the environment condition was 35℃ / 24℃ dry wet ball, outlet temperature of chilled water in 7℃, water temperature 12℃  
 ■ 额定制热：环境工况为 7℃ 干球 / 6℃ 湿球，热水出水温度 45℃，回水温度 40℃  
 heating nominal working condition: the environment condition was 7℃ / 6℃ dry wet ball, the water outlet temperature of 45℃, 40℃ of water temperature  
 ■ 由于产品不断改良引起性能参数变更，恕不另行通知  
 due to continuous improvement of products caused performance parameters change, without notice



# Introduction Performance 产品性能

## 空调热水机组 Air conditioning hot water units

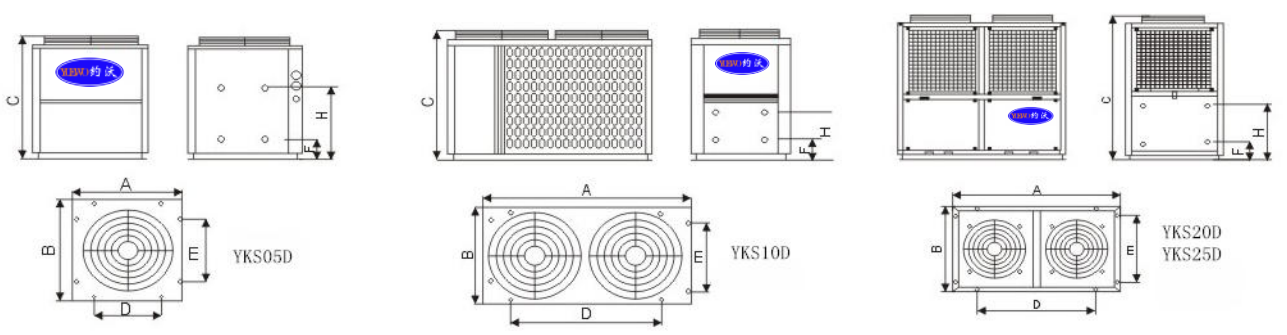
### 安装示意 Installation sketch



### 外形尺寸 Outside measurement

项目 Items	型号 Model	YKS05D	YKS10D	YKS12D	YKS20D	YKS25D
长 A Length		710	1450	1440	1800	2000
宽 B Wide		710	710	800	1100	1100
高 C Height		1010	1180	1390	2150	2150
定位孔位 D Locator hole		725	830	1190	1500	1500
	E	450	715	700	1060	1060
进出水孔位 F Holes for		110	135	142	240	240
	H	330	355	407	590	650

### 外形结构 External configuration

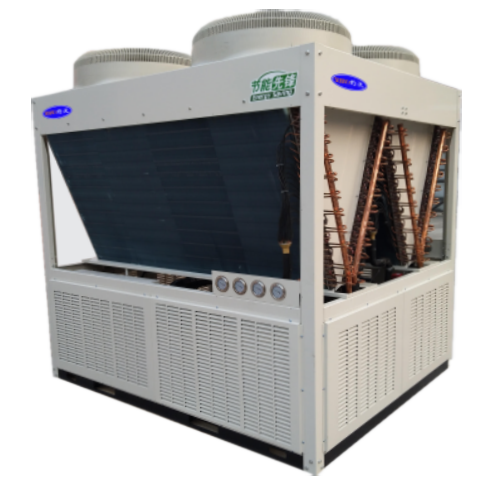


### 性能特点 Performance characteristic:

- 模块智能集中控制器，自动监控机组，用户更省心。
  - 机组空调热水一体化设计，安装简单方便，降低成本。
  - 多系统设计，用户使用时费用更省
  - 高效涡旋压缩机，稳定性好，COP高达6.5，机组寿命更长
  - 机组可自由组合，节省投资。
  - 自己可在不同季节选择不同的模式，使机组更加节能
  - 机组运行对环境无任何污染，是目前热水器空调最节能的设备。
- Module intelligent central controller, automatically monitor the machine, reliable performance, Air conditioning and hot water integrated design, simple installation, drop investment.
- Multiple system design, save cost
  - Effective vortex compressor, high stability, COP reaches 6.5 longer life
  - Free combination, save investment
  - Select different modes in different seasons, high energy saving performance.
  - No pollution to the environment. It is the water heat with high energy saving and environment protective performance.

### 适用范围 Suitable for

员工宿舍、学生宿舍、宾馆、酒店、桑拿娱乐中心、大型会所、恒温泳池、洗衣店、餐厅、酒楼、养殖场等。  
Worker dormitory, student dormitory, guesthouse, hotel, entertainment center, big chamber, constant temperature pool, laundry shop, restaurant, and culture farm



### 技术参数 Technical parameter

机组型号 Unit model		单位 Unit	YKS03C	YKS05C	YKS06D	YKS10D	YKS12D	YKS20D	YKS25D	
运行模式 Mode of operation	制冷量 Rated cool yield	Kcal/h	8	13	15	25	30	50	65	
		BTU	27,294	44,353	51,177	85,295	102,354	170,000	221,767	
		输入功率 Input power	KW	2.6	4.4	5.1	8.8	10.5	19	20.5
	制热量 Rated heating yielding	制热量 Heating yielding	Kcal/h	8.5	14	16	26	32	52	68
		BTU	29,000	47,765	54,588	88,706	109,177	177,000	232,002	
		输入功率 Input power	KW	2.7	4.6	5.3	9.2	11	19.5	21
运行模式 Mode of operation	制热能力 Rated hot-water output	制热能力 Ability of hot water yield	Kcal/h	9,460	15,480	18,920	32,680	37,840	64,500	73,960
		BTU	37,529	61,412	75,059	129,648	150,119	255,420	293,415	
		产水量 Water yielding	L/H	240	387	473	817	950	1600	1849
	制冷+制热冷却水+热水制热能力 Rated cooling water yield + hot water yield	制热能力 Ability of hot water yield	Kcal/h	7	12	13.5	23	28	47	60
		BTU	23,882	40,941	46,059	78,471	95,530	160,063	204,708	
		产水量 Water yielding	L/H	215	322	387	640	780	1376	1600
电源形式 Power demand	V/Ph/Hz	220/3/50/60				380/3/50/60				
压缩机 Compressor	形式 Type	全封闭压缩机 Full Enclosure								
	数量 Quantity	/	1	2	1	2	2	2	2	
翅片冷凝器 Fin condenser	形式 Type	高效内螺纹清水铝箔 Highly Efficient internal thread aluminum foil with clear water								
	数量 Quantity	钎焊板式/高效换热器 brass solder plate/high efficient heat exchanger								
使用侧换热器 Use of lateral heat exchanger	水流量 Water flow	m <sup>3</sup> /h	1.9	2.6	3	4.3	5.2	10.5	11.2	
	水压降 Water pressure	kPa	20	28	28	32	35	38	40	
	进水管接口 The water inlet pipe interface	/	DN25	DN25	DN40	DN40	DN40	DN65	DN65	
	出水管接口 The water outlet pipe interface	/	DN25	DN25	DN40	DN40	DN40	DN65	DN65	
热水侧换热器 Lateral hot water heat exchanger	水流量 Water flow	m <sup>3</sup> /h	2.2	3.5	6.6	7	13.2	18.9	23.5	
	水压降 Water pressure	kPa	20	28	28	32	35	38	40	
	进水管接口 The water inlet pipe interface	/	DN25	DN25	DN25	DN32	DN32	DN65	DN65	
	出水管接口 The water outlet pipe interface	/	DN25	DN25	DN25	DN32	DN32	DN65	DN65	
热水出水温度 The hot water outlet temperature		默认55℃温度可调 Default: 55°C. Temperature is adjustable								
噪声 Noise	dB(A)	42	45	48	53	55	58	65		
外形尺寸 External dimension (L/W/H)	mm	1156/456/905	1156/456/1345	710/710/1010	1450/710/1180	1440/800/1380	1800/1100/2150	2000/1100/2250		
包装尺寸 Packing size (L/W/H)	mm	1190/490/1035	1190/490/1480	740/740/1140	1480/740/1310	1470/830/1510	1830/1130/2280	2030/1130/2280		
净重 Net weight	kg	120	190	200	290	320	480	780		
毛重 Gross weight	kg	125	198	208	300	330	495	800		

额定制冷测试工况：使用侧进/出水温度为12℃/7℃；环境工况为35℃干球/24℃；Work environment for testing the rated cool yield: lateral incoming/outlet water temperature is 12°C/7°C. Work environment is 35°C dry ball/24°C wet ball.

额定水测试工况：使用侧进/出水温度为40℃/45℃；环境工况为7℃干球/6℃；Work environment for testing rated heating yield: lateral incoming/outlet water temperature 40°C/45°C. Work environment is 7°C dry ball/6°C wet ball.

额定水测试工况：冷水初始温度为15℃，默认热水温度50℃；环境工况为20℃干球/15℃湿球；Work environment for tests of hot water yield: initial cool water temperature is 15°C. Hot water temperature is 50°C by default. Work environment is 20°C dry ball/15°C wet ball.

制冷+热水测试工况：使用侧进/出水温度为12℃/7℃；冷水初始温度为15℃，默认热水温度为50℃；Work environment for tests of cool yield and hot water: To use the coming and outflow water at lateral side with temperatures 12°C/7°C. Initial cool water temperature is 15°C. Hot water temperature is 50°C by default.

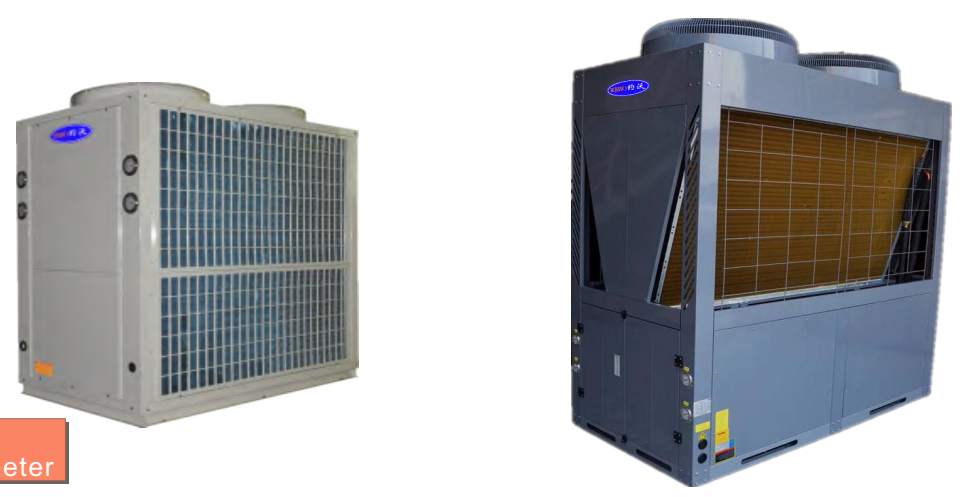
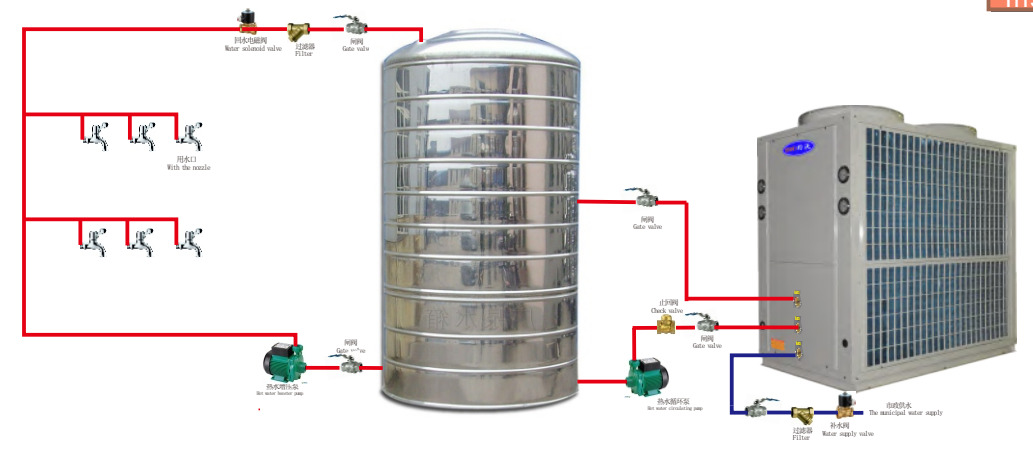
机型、参数、性能会因产品的改良有所改变，恕不另行通知。具体参数请以产品铭牌为准。Due to the machinery innovation or technical modifications, the model and parameter, the performance of the modified products will be subject to changes without prior notice. Please refer to the specific products or models for details.

如果要求机组带内置水泵，请在下单前和我公司做好技术澄清。Should built in water pump be required, please specify such requirement in the purchase orders. Thank you.

# Performance 产品性能 Introduction

## 直热循环空气源热泵机组 Direct heat air source heat pump units

安装示意  
Installation sketch

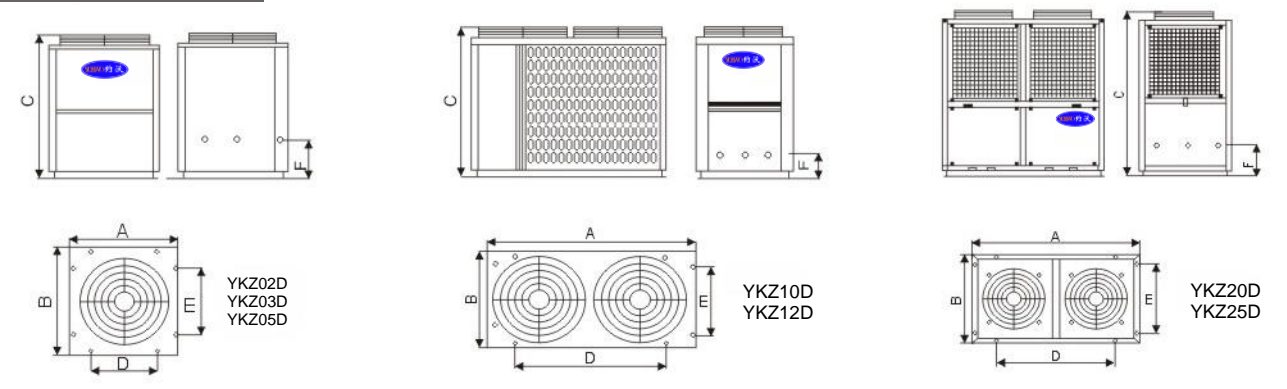


技术参数  
Technical parameter

外形尺寸  
Outside measurement

项目 Items	型号 Model	YKZ02D	YKZ03D	YKZ05D	YKZ10D	YKZ20D
长 A	Length	530	655	710	1440	1800
宽 B	Wide	530	695	710	800	1100
高 C	Height	750	815	1010	1390	2150
定位孔位 Locator hole	D	300	666	725	1190	1500
	E	300	445	450	700	1060
进出水孔位 Holes for	F	...	...	...	...	...
	H	...	...	...	...	...

外形结构  
External configuration



性能特点:

Performance characteristic:

- 直热恒温出水，自动循环保温，水温更稳定，用户更放心。
- 采用微电脑全自动控制，停电记忆功能，使用更放心。
- 完善的故障自检和保护功能，运行更可靠。
- 先进的化霜技术，化霜更安全，效率更高。
- 低静音运行，对环境无任何污染。
- 全部采用世界著名品牌配件，机组寿命更长。

适用范围

Suitable for  
员工宿舍、学生宿舍、宾馆、酒店、桑拿娱乐中心、大型会所、恒温泳池、洗衣店、餐厅、酒楼、养殖场等。  
Worker dormitory, student dormitory, guesthouse, hotel entertainment center, big chamber constant temperature pool, laundry shop, restaurant and culture farm.

### 直热式空气源热泵 Direct heat air source heat pump units

机组型号 Unit model	单位 Unit	YKZ03D	YKZ05D	YKZ06D	YKZ10D	YKZ12D
额定制热量 Rated heating yielding	KW	11	18	22	38	44
	Kcal/h	9,460	15,480	18,920	32,680	37,840
	BTU	37,529	61,412	75,060	129,648	150,119
输入功率 Input power	KW	2.8	4.7	5.5	9.5	11
运行电流 Operation current	A	5.5	8.8	10.5	17.7	21
电源形式 Power demand	V/Ph/Hz	380/3/50/60				
压缩机数量 Quantity of compressor	Piece	1	1	1	2	2
压缩机形式 Type of compressor	全封闭涡轮式 Full Enclosure scroll vortex					
风机数量 Quantity of fan	Piece	1	1	1	2	2
风机输入功率 Fan's input power	W	90X1	250X1	250X1	250X2	250X2
风机转速 Fan speed	BPM	850	850	850	850	850
防水等级 Grade of water resi stance	1PX4					
出水温度 Water temperature	°C	默认55°C 温度可调 Default: 55°C. Temperature is adjustable				
产水量 Water yielding	L	240	400	475	817	950
水流量 Water flow		2.9	4.8	5.8	9.6	11
水压降 Water pressure	Kpa	35				
冷水进口 Cold water inlet		DN20	DN20	DN20	DN25	DN25
循环进口 Recycle input		DN25	DN25	DN25	DN32	DN40
出水管接口 Water exitnozzle		DN25	DN25	DN25	DN32	DN40
冷媒形式 Type or refrigerant	R22/R407C/R417A/R410A					
注氟量 Freon feed	kg	2.2	3.3	3.5	6.6	7
噪声 noise	dB (A)	55	58	60	63	65
外形尺寸 (L/W/H) External dimension (L/W/H)	mm	655/695/810	710/710/1010	710/710/1010	1440/800/1380	1440/800/1380
包装尺寸 (L/W/H) Packing size (L/W/H)	mm	685/725/940	740/740/1140	740/740/1140	1470/830/1510	1470/830/1510
净重 Net weight	kg	105	185	205	315	325
毛重 Gross weight	kg	110	192	212	325	335

■ 额定制热测试工况：室外干/湿球温度20°C/15°C，自来水进水温度为水温为55°C。  
Work environment for testing rated heating: temperature fo dry/ wet balls placed outdoor :20°C/15°C. Incoming tap water temperature 15°C/ exit water temperature is 55°C.  
■ 机组使用范围：环境温度-7°C~43°C；  
Range in which units operate: ambient temperature -7°C~43°C.  
■ 机型、参数。性能会因产品的改良有所改变，恕不另行通知。具体参数请以产品铭牌为准  
Due to the machinery innovation or technical modifications, the model and parameter, the performance of the modified products will be subject to changes without prior notice. Please refer to the specific products or models for details.