



中国通用电气
CHINA GENERAL ELECTRIC GROUP

CHILLERS
制冷机组系列
A2

全球信赖品质

World Trusted Quality



机电设备安装工程专业承包壹级资质

The First-grade Certification of Electromechanical Equipment Installation

ISO9001质量管理体系认证

Certified by ISO9001 quality system

ISO14001环境管理体系认证

Certified by ISO14001 environment system

首批荣获国家质检总局颁发全国工业产品生产许可证

First got the refrigeration equipment

production permit issued by National Quality Testing Bureau

Underground water circuit (embedded pipeline) water source heat pump units

地下环路式(地理管)
水源热泵机组



www.yatai.cc



以前我们认识世界，现在世界认识我们
We knew the world before, the world knows us now.



以人为本 / 品质 / 创新 / 服务

Dezhou YATAI Group CHINA
Dezhou YATAI Group CHINA

德州亚太集团有限公司

德州市亚太空调设备有限公司

德州亚佳制冷空调工程有限公司

德州亚太集团安装有限公司

德州市亚太玻璃钢设备有限公司

Dezhou Yatai Group Co.,Ltd

Dezhou Yatai Air Conditioning Equipment Co.,Ltd

Dezhou Yatai Glass Fiber Reinforced Plastic Equipment Co.,Ltd

Dezhou Yatai Environmental Protection Facilities Engineering Co.,Ltd

Dezhou Yajia Refrigeration Air Conditioning Project Co.,Ltd

Dezhou YATAI Group CHINA

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中国德州亚太集团
DEZHOU YATAI GROUP
CHINA

Dezhou YATAI Group CHINA

Dezhou YATAI Group CHINA
Dezhou YATAI Group CHINA

Dezhou YATAI Group CHINA

I Group CHINA
YATAI Group CHINA

亚太的品牌理念

全力推动创新科技的应用
致力于人类生活品质的提升、让科技引领生活
创世界满意品牌

THE CONCEPT OF YATAI BRAND

Promotes,with full strength,the application of innovative technology.Strives for the extension of living quality for human being,let the science and technology lead the new life and creates world satisfactory brand.

全球信赖品质

World Trusted Quality



德州亚太集团是国内大型暖通空调、洁净技术系统集成供应商。

集多年潜心研究，博采众长自成体系，打造出一流的暖通空调、洁净技术全套设备和众多精品工程。国内以中央电视台新址、酒泉卫星发射中心、北京大兴国际机场、国家质检总局、北京小汤山医院、武汉火神山医院、武汉雷神山医院、三峡工程及近二十个北京奥运场馆等为代表，国外以巴基斯坦乌奇电厂、柬埔寨金边市大都会广场、印度帕帕多拉工程等为代表的重点项目，采用了亚太中央空调设备，长期稳定，节能环保，获得了广泛的赞誉。

ISO9001、14001、3C、UL、CE、CRAA 等一系列认证；主机列入节能产品政府采购清单、数十项国家专利、国家级高新技术企业、中国驰名商标，充分标明了亚太集团的管理水平和产品水平。

与荷兰阿波罗合资，以欧洲标准制造的洁净设备全部返销发达国家、中央空调设备相继进入十几个国家和地区，展示亚太集团已经步出国门，与国际接轨。

植根齐鲁大地，秉持“以人为本”的经营理念，崇尚“以德待人”的儒家文化，亚太集团愿与您共同开创明天的辉煌。

Dezhou Yatai Group is a supplier of large HVAC and clean system in China.

Yatai has developed whole set of advanced HVAC and clean technology equipment and lots of wonderful projects based on long-term research and features of the others.

Many famous projects adopted Yatai central air conditioners that run smoothly, save energy, protect environment and have won good reputation widely like the New CCTV, the Jiuquan Satellite Launching Center, Beijing Daxing International Airport, the General Bureau of National Quality Inspection, Beijing Xiaotangshan hospital, Wuhan Huoshenshan hospital, Wuhan Leishenshan hospital, Three-gorge Engineering Project, and over 20 Beijing Olympic Stadiums in China; the UCH Power Plant in Pakistan, the Phnom Penh Capital Squire in Cambodia, the Priyadarshini Jurala Project in India and others across the world.

Yatai has been certified by ISO9001, 14001, 3C, UL, CE, CRAA, etc.; its chiller names have been put on the government purchasing list as energy saving products and obtained dozens of national patents, titles of National High-technology Enterprise and Chinese Famous Trademark, which fully show the high management levels and product qualities of Yatai Group.

The filtering equipment made according to the European Standards by the joint venture, which is co-invested by Dutch Afpro Company and Yatai, are all exported to the developed countries; our central air conditioners have been exported to over 10 countries or regions, which show that Yatai Group has stepped into oversea markets and been in line with the world.

Located at Shandong Province, insisting on business idea of " humanism " and advocating the Confucianism of " getting along with people by morality ", Yatai Group wishes to create a brilliant future with you.



中国德州亚太集团

CHINA DEZHOU YATAI GROUP



以一流技术研制全方位产品

Developing the omni-directional products by the first-class technology

使用精品 造就精品

世界著名制造商生产的最现代化装备和领先同行业的高科技含量是亚太始终保持竞争优势的强力保证

Using high-quality goods Making high-quality goods

The modernized equipment produced by world famous manufacturers And the high content leading in the same profession

Are Yatai's guarantee of maintaining his competitive advantage all the time

全球信赖品质

World Trusted Quality



CRAA产品认证

Certified by CRAA

ISO9001质量管理体系认证

Certified by ISO9001 quality system

ISO14001环境管理体系认证

Certified by ISO14001 environment system

首批荣获国家质检总局颁发全国工业产品生产许可证

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Honorable Qualification



CHILLERS

制冷机组系列

Underground water circuit (embedded pipeline) water source heat pump units

地下环路式(地埋管)
水源热泵机组

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离心式水冷冷水机组

Centrifugal water cooled water chiller



水冷冷水机组

Water-cooling chiller system



地下环路式(地埋管)水源热泵机组

Underground water circuit (embedded pipeline) water source heat pump units



地下水式水源热泵机组

Underground water circulating type water source heat pump units



风冷冷(热)水机组

Air cooled cold/hot water chiller



超低温风冷冷(热)水机组

Ultra-low temperature air cooled cold/hot water chiller



低环境温度空

Low ambient temperature

水源热泵机组概述：

Summary about water-source heat pump unit

亚太牌水源热泵机组是山东德州亚太集团研制开发的系列中央空调之一，是在充分吸收国际、国内冷冻、空调领域最新发展技术的基础上研制开发设计的成熟定型产品。

该系列机组严格按照国家标准设计与制造，机组采用世界著名制造商生产的高品质、高效率的压缩机、冷媒系统控制元件及电脑器件，通过合理的系统匹配及结构设计，使机组具有能效比高，性能稳定，质量可靠，噪声低，对室外环境无噪声污染等诸多优点。产品广泛应用于水源充足、空调使用面积大、使用空间分散且对环境噪声有严格要求的使用场所。

该系列机组可与风机盘管、柜式空气处理机、吊顶式空气处理机、新风机组、组合空气处理机组等空调末端设备一起组成半集中式或集中式中央空调调节系统，为空调系统提供冷源；也可应用在电子、医药、塑料制品等行业作为工艺冷冻冷水冷源。

该系列机组是以地下埋管中的循环水为冷热源，以水作为载冷介质向空调提供冷热水的一体化中央空调设备。亚太牌水源热泵机组以其高能效比、能量调节范围广、运行能源消耗小、噪音低、结构合理、操作简便、运行安全、安装维护方便等优越特性见长。广泛用于宾馆、商场、办公楼、展览馆、机场、体育馆等公共设施的舒适性中央空调系统，并能满足电子、制药、生物、轻纺、化工、冶金、制药、电力、机械等行业的工艺性空调系统的不同使用要求。

The "Yatai" water heat-pump chiller is one of the series central air conditioner researched and developed by Dezhou Yatai Group, and a mature stereotypia product on the base of absorbing the advanced international and domestic technology.

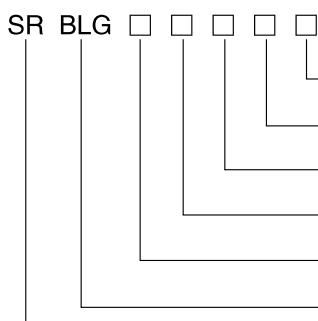
This series chiller is designed and manufactured strictly according to the National Profession Standard, used the high quality and efficiency compressor, the cold media controller and the computer parts made by world famous manufacturers. By the reasonable system match and structural design, make the chillers have many characteristics such as high efficiency, stable performance, reliable quality, low noise, no noise pollution to outdoor environment. They are widely applied in the places where water source is insufficiency, the air conditioning useable area big, the use space scatter, the ambient noise has a strict request.

This series chiller may be formed the half central or central air conditioning system with the terminal air conditioners together such as fan coil, cabinet air processor, suspended ceiling air handler, fresh air breather and combination air handler and so on. They are cooling resources of the air conditioning system, and the technology freezing water resources applied in the profession such as electron, plastic product and so on too.

This series chiller is an integrated central air conditioning equipment which takes upper water as a cooling resource, as cold carried medium. The "Yatai" water cooled water chiller has a lot of characteristics such as high efficiency, broad energy adjustment scope, small energy consumption, low noise, reasonable structure, simple operation, safe movement, convenient installation and maintenance. Is widely used in the comfortable central air-conditioning system such as hotel, stores, office building, exhibition hall, airport, stadium and so on. It can meet the different operation requirements of the technological air-conditioning system such as electron, drugs manufacture, biology, spins, chemical industry, metallurgy, electric power, machinery and so no.

产品规格命名：

Product specification naming



机组类型: S-全热回收型, 标准型不表示
S-Total heat recovery type, no letter represents the standard type
蒸发器型式: M-满液式, J-降膜式, 干式不表示
Evaporator type: M- the flooded, J-Falling-film type, the dry type no indication
制冷剂代号, R22不表示, A代表: R134a
The refrigerant code number: R22 un-indicate, A indicates R134a
热源型式: H: 地下环路式; D: 地下水式
Evaporator type: M- the flooded, the dry type no indication
名义制冷量: 单位KW
Nominal cooling capacity: Unit KW
压缩机类型: 半封闭双螺杆式
Compressor type:Semi-hermetic double screws
水源热泵机组的基本代号
Compressor type:Semi-hermetic double screws

SR BLG 600 H A M S

全热回收型
Total heat recovery
满液式
The flooded
制冷剂为R134a, 整体式
The refrigerant is R134a, the integral type
地下环路式
Underground loop type
名义制冷量: 600KW
Nominal cooling capacity: 600KW
半封闭双螺杆压缩机
Semi-hermetic double screw compressor
水源热泵机组
Water heat-pump chillers

气源热泵(冷水)机组
air source heat pump (chill water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空气调节机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空气调节机-吊顶式冷热风型
Ceiling handing unit-type cold hot type单元式空气调节机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type



离心式水冷冷水机组

Centrifugal water cooled water chiller



水冷冷水机组

Water-cooling chiller system



地下环路式(地埋管)水源热泵机组

Underground water circuit (embedded pipeline) water source heat pump units



地下水式水源热泵机组

Underground water circulating type water source heat pump units



风冷冷(热)水机组

Air cooled cold/hot water chiller



超低温风冷冷(热)水机组

Ultra-low temperature air cooled cold/hot water chiller



低环境温度空

Low ambient temperature

产品主要器件： The main parts

1、壳管式冷凝器

- ★采用目前最先进的DAE高效冷凝传热管，管外表面的多头螺旋细肋以及螺旋形突起，使换热系统数和换热能力大幅度提高。
- ★内部结构优化设计，极大地提高了冷凝器抗腐蚀、抗污垢的能力，充分发挥冷凝器换热效果，从而保证机组达到较高的性能水平。
- ★壳管式冷凝器上还安装安全阀，放气阀等，确保壳管式冷凝器的安全性以及清洗、维护的方便性。

1.Shell and tube type condenser

★Uses the most advanced DAE highly effective condensation heat exchanging pipe, the many screws thin rib and the helix protruding outside the tube surface makes the heat transfer coefficient and the ability enhance large scale.



★The internal structure is designed optimally, enhances the condenser corrosion-resistance and the anti-dirt ability enormously, and displays the condenser heat transfer effect fully, thus to guarantee the unit achieves a high performance capability.

★On the Shell and tube type condenser installs a safety valve and bleeder valve and so on, to guarantee its security and convenience for the clean and maintenance.

2、壳管式蒸发器

- ★采用管壳式结构，外表采用最新阻燃、防水型的隔热材料保温，水侧工作压力可根据用户需求进行设计。
- ★蒸发器内设PVC工程塑料挡水板，抗腐蚀能力强。冷冻水沿隔板上下迂回流动，以增加扰流效果提高蒸发器换热能力。蒸发器入口设置特殊设计冷媒均流装置使冷媒在各铜管内分布更为均匀，以提高整台蒸发器的热交换效率。
- ★采用最新DAC波纹状内螺旋高效换热管，强化氟侧换热能力，提高传热系数，以确保机组良好的制冷性能。

2.Shell and tube type evaporator

★Uses the shell type structure; its surface adopts the latest flame retardant and waterproof heat insulation material; and the working pressure on the water side is designed according to the needs of users.



★Inside the evaporator, there is PVC engineering plastics flap, so the corrosion resistance ability is high. The chilled water flow around the board circuitously, thus may increase stirring effect and enhance the evaporator heat transfer ability. At the evaporator inlet there is a specially design which may let the coolant distribute more evenly, thus may entrance the evaporator's heat change efficiency.

★Uses the newest DAC ripple inside spin highly effective heat exchanging pipe, enhances the heat transfer coefficient, to guarantee the unit good refrigeration performance.

3、半封闭螺杆压缩机

- 机组采用国外进口的半封闭螺杆压缩机，与活塞式压缩机比较，半封闭螺杆压缩机具有如下优势：
- ★部件少（约为活塞式压缩机的1/3），结构简单、易损件少，可靠性高、寿命长；
 - ★压缩机吸排气均匀连续，排气温度低，振动小，对湿压缩不敏感，抗液击能力强；

★机组能效比高，经济运行性好。

在能量调节方面，螺杆压缩机更具优势，实行25%~100%范围内的能量调节。

3.Semi-hermetic screw compressor

The unit uses the imported semi-hermetic screw compressor. Compared with the reciprocal compressor, it has the following superiorities:

- ★The parts are a few (is approximately reciprocal compressor 1/3), the structure is simple, the vulnerable parts few, the reliability high, the life long;
 - ★The compressor's intake and exhaust are even connected, the exhaust temperature is low, the vibration slight, the wet compression is insensitive, the ability of anti-fluid strike high;
 - ★The unit has a high efficiency, the movement is good.
- At the energy adjustment aspect, the screw compressor has a lot of superiorities, may make an energy adjustment from 25% to 100%.



4、制冷系统配件

★机组所用制冷系统配件全部进口国外名牌厂家的产品，如可拆式干燥过滤器、供液电磁阀、外平衡式热力膨胀阀、截止阀、视液镜、高低压力控制器、排气温度控制器等均采用世界一流的名牌厂家的产品，确保机组具有较高的性能水平。

4.Refrigeration system fittings

★The unit fittings such as the demountable-type dry filter, fluid solenoid valve, outside balance-like thermal expansion valve, cut-off valve, fluid watching mirror, high and low pressure controller, discharge temperature controller and so on are all imported from the overseas famous factories, to guarantee the unit has a high performance capability.



5、微电脑控制器

★采用知名品牌的宽温型电器元件，微电脑控制器-10℃~50℃环境下能稳定、可靠运行。

★具有完善的自动控制功能和很强的抗干扰能力，同时还具备多重保护功能。

★具备RS-232,RS-485标准通讯接口各一个，实现本地PC机远控（1000米以内）或通过MODEM实施远程监控。

5.Microcomputer controller

★Uses the well-known brand wide warm electric appliances and microcomputer controllers, the unit may run steady and reliably from -10°C to 50 °C.

★Has a perfect automatic control function and a very strong anti-jamming ability, meanwhile has the multiple protection function.

★Having RS-232,RS-485 standard communication connection each, realizes local PC far controls (in 1,000 meters) or long-distance monitoring through MODEM.



水源热泵(冷水)机组
air source heat pump (chill water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
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Unit type air conditioner constant temperature and humidity type单元式空气调节机-吊顶式冷热风型
Ceiling handing unit-type hot & cold type单元式空气调节机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

水源热泵机组产品特点：

Product characteristics of Water heat-pump chillers:

1、高效、节能

机组运用最新空调技术和控制技术进行优化设计，采用先进的无级能量调节技术，提高了机组能量调节范围，改善了机组部分负荷特性系数。与传统的多级能量调节方式相比较，机组节能效果高6%。每台机组按照GB/T19409水源热泵机组国家标准测试，能效比高，供热性能系数(COP值)>4.2，最高可达4.8，制冷性能系数(COP值)>5.2，最高可达5.8。

2、安全保护措施齐全

机组均设有温度保护开关，过载保护器、高低压安全开关、干燥过滤器、防冻开关、水流开关及延时启动等保护装置，确保主机安全运行，且检维护容易。

3、环保

机组采用节能、环保制冷剂R134a，该制冷剂经国家CFC评估中心检测无CFC；ODP（臭氧层消耗潜能值），GWP（全球变暖潜能值）均低于中国国家环保局，美国国家环保规定的标准。机组在使用过程中不释放任何对环境有害的排泄物，不消耗、不破坏、不污染水资源。

4、控制先进、质量稳定、性能可靠

- ★采用先进的微电脑进行智能化控制，全中文显示，操作界面友好，使用者操作时对机组运行状况一目了然。
- ★高度自动化，控制功能齐全，能实现机组启、停自动管理，定时控制、水泵管理、全功能故障报警及故障自我诊断功能。同时配RS485/RS232通讯接口，方便用户实现机组的集中监控和远程监控。
- ★机组采用的微电脑及电控元件均是进口国外著名公司的产品，质量好，控制准确，性能可靠，大大减轻了设备管理者的工作量。
- ★微电脑控制器具有智能控制功能，具备故障自诊断、能量管理、防冻监测等多项自动控制功能，确保机组运转高效。

5、外观造型精巧、美观、节省设备安装空间

- ★机组采用叠放式结构设计，空间利用率高，机组外形尺寸小，设备管理维护方便。
- ★机组采用高效换热器，提高了机组的换热能力，减小了机组体积和重量，为使用者节省机房建筑空间和建筑造价。
- ★机组壳体采用粉末静电喷塑处理，颜色均匀、美观。

6、超低噪声、运行安静

采用了最新半封闭螺杆压缩机，使机组运行更加平稳，减小了机组的噪声和震动。

1.Efficient and energy-saving

The optimal design has been done through using the most advanced air conditioning skill and control technology. The advanced continual energy regulation technology has increased energy regulation scope, improved some load capacity coefficient. The unit energy-saving effect has increased 6% compared with the traditional multi-steps energy regulation one. The each unit energy efficiency ratio is high; the heat supply performance factor (cop value) is more than 4.2, the maximum is up to 4.8; the refrigeration performance coefficient (cop value) is more than 5.2, the maximum is up to 5.8; in accordance with National Test Standards GB/T19409 of water-source heat pump system.

2.Complete security protection measures

The heat pumps all have safety devices such as temperature protection switches, overload relay, high and low pressure protection switches, dry filters, frost-proof switches, fluent switches, time delay starts and so on to guarantee they may run safely and their maintenances are easy.

3.Environmental protection

The heat pumps have used the energy saving environmental protection refrigerant, R134a. This refrigerant has no CFC, the ODP (Ozone Depletion Potentials) and GWP (Global Warming Potentials) are all lower than those stipulated by Chin National Environmental Protection Bureau and U.S. National Environmental Protection Bureau. The units do not release any pollution discharges, and not consume, undermine or contaminate water source.

4.Advanced control, stable quality and reliable performance

Due to using the advanced microcomputer to carry on the intellectualized control, all Chinese display and friendly operation screen, the operator may know all the unit working modes at a glance when operating unit.

High automation and complete control function may realize the functions such as unit start/stop automatic management, timed control, water pump management, all breakdown report, breakdown self-diagnosis and so on. At the same time provides RS485/RS232 communication connection makes the unit's central/long-distance monitoring be convenient for user.

The microcomputer and electrical control parts are all from the overseas famous companies, their qualities are good, controls accurate, performances reliable, thus may reduce the worker's work load.

The microcomputer controller has intelligence control function, has many automatic control functions such as the breakdown diagnosis, the energy management, the frost-proof monitor, the movement pattern and so on, to guarantee the unit work effectively.

5.The appearance is exquisite and artistic, so that may save the installation space. The unit uses layer structural design. The spatial usage rate is high, unit external dimensions small, equipment operation and maintenance are convenient.

The highly effective heat interchanger has enhanced heat transfer capability, reduced unit volume and weight and saved engine room space and construction costs for users.

The unit housing is painted by electrostatic plastic spray, its color is even and artistic.

6.Super low noise, tranquil movement

Has used the most advanced semi-hermetic screw compressor, let the unit movement be steadier, and reduced unit's noise and vibration.



离心式水冷冷水机组

Centrifugal water cooled water chiller



水冷冷水机组

Water-cooling chiller system



地下环路式(地埋管)水源热泵机组

Underground water circuit (embedded pipeline) water source heat pump units



地下水式水源热泵机组

Underground water circulating type water source heat pump units



风冷冷(热)水机组

Air cooled cold/hot water chiller



超低温风冷冷(热)水机组

Ultra-low temperature air cooled cold/hot water chiller

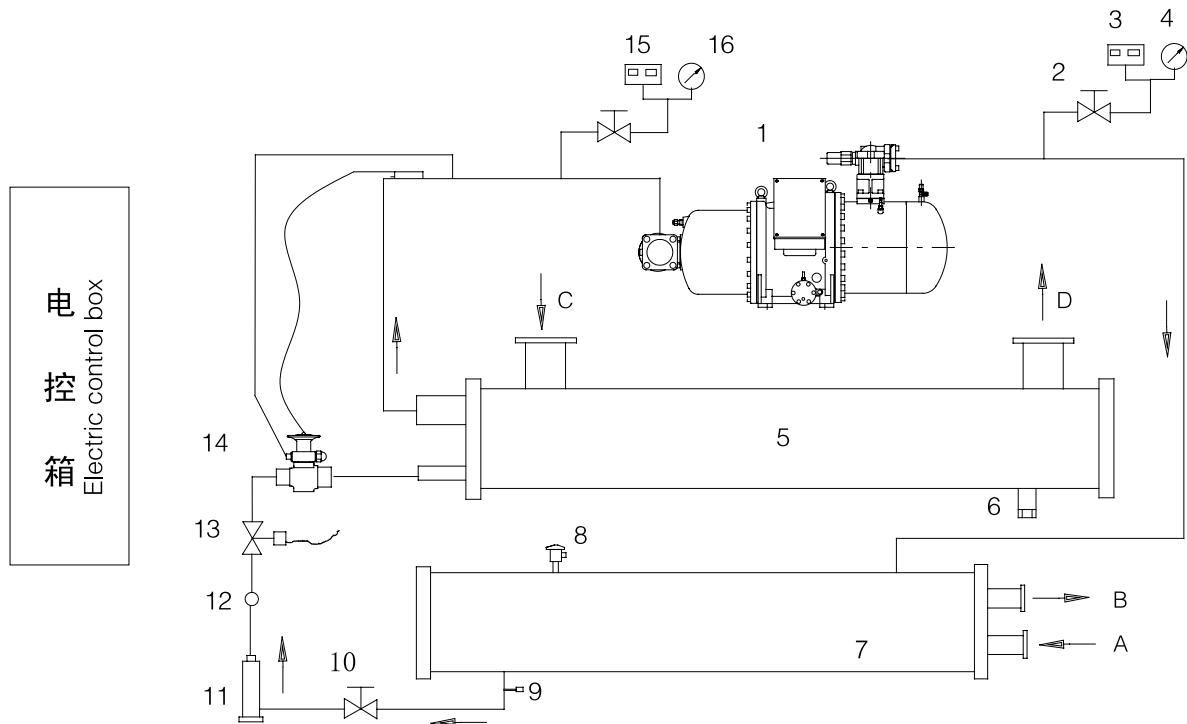


低环境温度空

Low ambient temperature

水源热泵机组系统原理图 (半封闭螺杆压缩机)

Principle diagram of water source heat pump (semi-closed screw compressor)



1、压缩机

1.Compressor

2、小截止阀

2.Small cut-off valve

3、高压控制器

3.High-pressure controller

4、高压压力表

4.High pressure manometer

5、蒸发器

5.Evaporator

6、泻水阀

6.Pour out valve

7、冷凝器

7.Cooler

8、安全阀

8.Safety valve

9、针阀

9.Pin valve

10、截止阀

10.Cut-off valve

11、干燥过滤器

11.Dry filter

12、视镜、

12.Window

13、电磁阀

13.Solenoid valve

14、膨胀阀

14.Expansion valve

15、低压控制器

15.Low pressure controller

16、低压压力表

16.Low pressure manometer

A、制冷时热源侧进水，制热时使用侧进水；

B、制冷时热源侧出水，制热时使用侧出水；

C、制冷时使用侧进水，制热时热源侧进水；

D、制冷时使用侧出水，制热时热源侧出水。

A.When cooling, the water enters at the heat source side, when heating the water enters at the service side;

B.When cooling, the water leaves at the heat source side, when heating the water leaves at the service side;

C.When cooling, the water enters at the service side, when heating the water enters at the heat source side;

D.When cooling, the water leaves at the service side, when heating the water leaves at the heat source side;

A.When cooling, the water enters at the heat source side, when heating the water enters at the service side;

B.When cooling, the water leaves at the heat source side, when heating the water leaves at the service side;

C.When cooling, the water enters at the service side, when heating the water enters at the heat source side;

D.When cooling, the water leaves at the service side, when heating the water leaves at the heat source side;



满液式、降膜式水源热泵机组特点

Features of the flooded, falling film type water-source heat pump system

1、国际品质 性能卓越

SRBLG系列机组是按照经认证的ISO9001质量体系、ISO14001环境体系灵活的积木化设计技术、先进的DFM生产方式、严格的压力容器规范及制冷设备安全标准进行设计制造。该项技术已达到国际领先水平；性能卓越，在同行业中被誉为“经典之作”。

2、高效专用压缩机，超低噪声，运行宁静

本系列机组采用世界著名品牌的专用喷油螺杆压缩机。采用第三代型线及精确的转子加工，大大减少泄漏和损失；喷油润滑密封使转子在啮合时不直接接触而几乎没有磨损；电机直接驱动转子避免联轴器或齿轮传动所造成的损失；经改进的轴承大大提高设计寿命，特制的油分离器保证更高的分油效率。机组运行更加平稳，减小了机组的噪声和震动。

3、高效率 低能耗

除压缩机本身的高效率外，本系列机组采用国内独创的满液式、降膜式蒸发器，与干式蒸发器相比，效率平均提高约20~40%。蒸发器和冷凝器使用最先进的管内外强化肋翅技术，更促进机组效率的提高。供热性能系统(COP值)>4.8，最高达5.3；制冷性能系数(COP值)>6.2，最高达6.7。

4、可靠的回油系统

螺杆机组用满液式蒸发器最大的技术障碍是回油。公司经过多年潜心研究和试验，设计出独特且可靠的回油系统，保证了机组在各种负荷及工况下运行时能可靠的回油。

5、可靠先进方便的控制系统

采用世界著名的液位控制器及电子膨胀阀控制蒸发器的液面，根据系统负荷的变化自动进行调节。从而保证了蒸发器液面的即时回归。负荷调节方式采用有（无）级滑块调节，在可编程控制器系统的控制下，在25%~100%的冷量调节范围内保证随时与负荷匹配；操作面板采用触摸屏，所有操作设定及显示均在此完成；其先进而全面的保护及故障诊断功能，保证机组在尽量减少停机可能性的前提下多制取冷量。

6、安装调试快捷

管路设计简单，在安装现场只需连接水管；本系列机组标准配备均为随机安装有星三角起动柜，只需简单地接上电源即可运行机组；机组占地面积小及噪声低振动低的特点决定了基础无特殊要求；出厂时每台机组按照GB/T19409标准通过严格的性能测试，并已充注了所需的冷冻合成油和制冷剂，大大节约调试时间。

7、远程控制

本系列机组可根据用户的需要配置远程控制接口。可以加配一个远程显示屏用于远距离的显示和设定。

1.The international quality, remarkable performance

The SRMBLG series chiller is designed and manufactured according to ISO9001 quality system, ISO14001 environment system, advanced DFM production method, strict pressure vessel standard and refrigeration equipment security standard. This technology has achieved the international leading level; The performance is remarkable. This chiller is called "classical work" in the refrigeration profession.

2.Highly effective special-purpose compressor, super low noise, tranquil movement

This series chiller uses the world famous brand special-purpose oil-sprayed screw compressor. Uses the third generation streamlined and precise rotor, reduces the leak and the loss greatly; The oil-sprayed lubrication seal lets the rotor no-directly contact and no worn nearly when meshing; The electrical machinery directly drives the rotor, may avoid the loss which created by the shaft coupling or the gear drive; The improved bearing lengthens the design life greatly. The special oil separator guarantees the higher efficiency of oil-separated. The unit movement is steadier.

3.High efficiency and low energy consumption

Besides the compressor high efficiency itself, this series chiller uses the domestic creative flooded, falling film type evaporator, its efficiency enhances approximately 20-40% on an average compared with the dry type evaporator. The most advanced rib-wing-strengthened technology in and out the tube is used in the evaporator and the condenser, which has promoted the unit efficiency. Heating capability coefficient (COP)>4.8, the climax will reach 5.3; Cooling capability coefficient (COP)>6.2, the climax will reach 6.7.

4.Reliable oil return system

The biggest technology barrier is an oil return when the flooded evaporator used in the screw unit. The unique and reliable oil return system has been designed by our company after many year study and experiment, to guarantee unit can return oil reliably at each kind of load and operating mode.

5.Reliable advanced convenient control system

Uses the world famous fluid position controller and the electronic expansion valve to control the evaporator liquid level, automatically adjusts according to the system load change. Thus has guaranteed the evaporator liquid level return immediately. The load adjustment uses step (stepless) slide adjustment, may match with the load as necessary under the Programmable controller system control in 25%-100% cold quantity adjustment. Operation panel is the touch screen, all operations and sets have been done at this. Its advanced and complete protection and breakdown-diagnosis function guarantees the chiller may make more cooling capacity under the unit turned off as soon as possible.

6.Quick installation and debugging

The pipeline design is simple, only connects the water pipe on the site. This series chiller standard match all has the star triangle starting cabinet, only simply joins the power source can start the unit. The foundation did not have the special request, for the unit area is small, the noise low, the vibration small. Each unit has passed through the strict performance test according to GB/The T19409 standard. And has sufficiently poured the freezing synthetic oil and the refrigerant which are needed, saves the debugging time greatly.

7.Long-distance control

This series chiller may dispose the long-distance control connection according to the user's need. May add a long-distance display monitor which is used in the long-distance demonstration and setting.



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水冷冷水机组

Water-cooling chiller system



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Underground water circuit (embedded pipeline) water source heat pump units



地下水式水源热泵机组

Underground water circulation type water source heat pump units



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Air cooled cold/hot water chiller



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Ultra-low temperature air cooled cold/hot water chiller

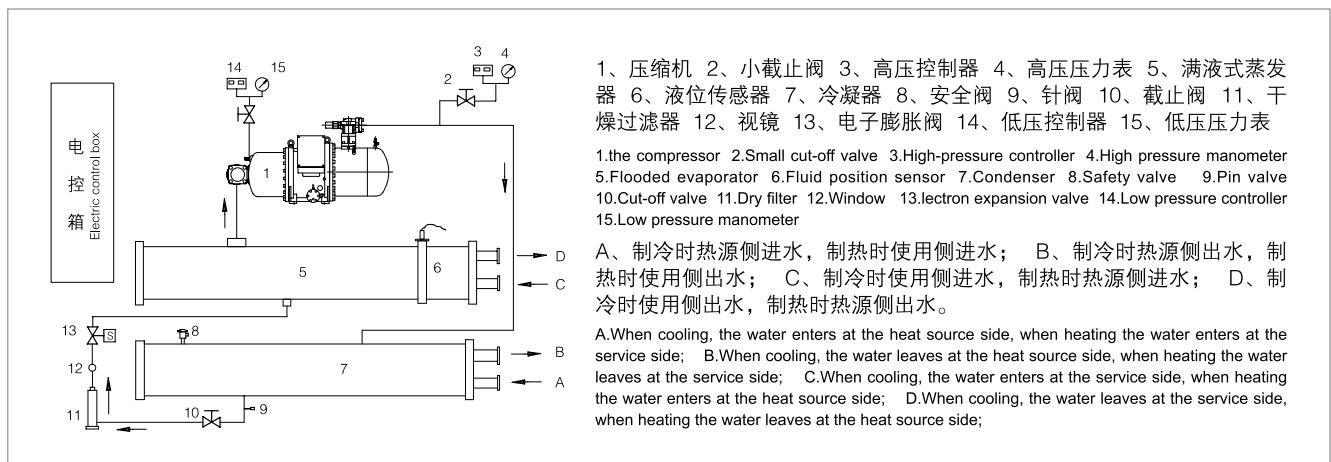


低环境温度空

Low ambient temperature

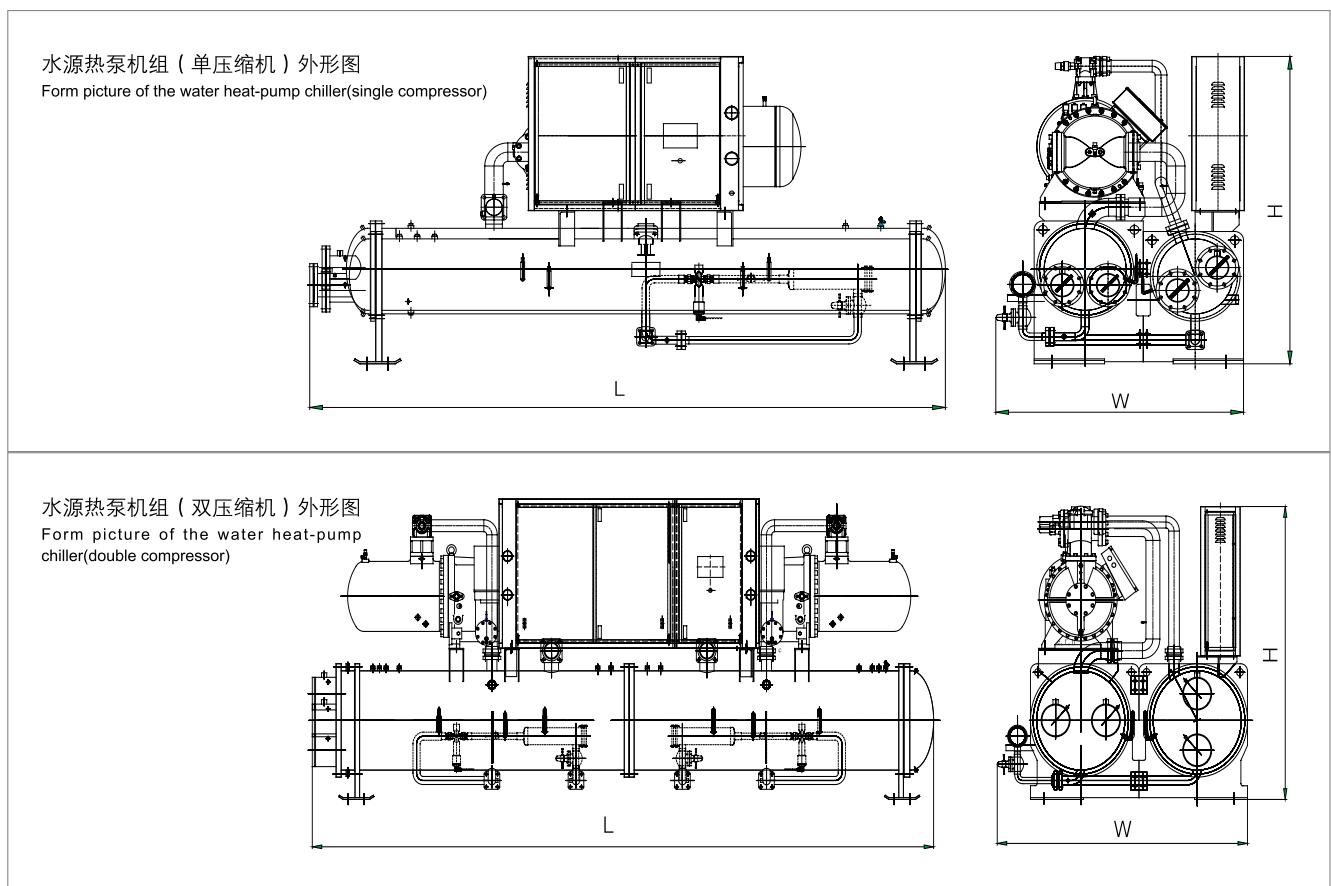
系统原理图

System principle diagram of the flooded water-source heat pump unit



机组外形及安装尺寸 (详见技术参数)

The detailed contour and installation size(Refer to the technology parameter)



水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调机-吊顶式冷热风型
Ceiling handing unit-air suspension type cold hot blast type单元式空调机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)水源热泵机组技术参数表1(HCFC22)

Underground loop type (Embedded pipes) Main technology performance parameter list 1 of water-source heat pump system(HCFC22)

机组型号SRBLG Unit model SRBLG		100H	140H	180H	230H	280H	320H	350H	380H	420H	470H	500H	560H	640H	700H										
制冷 Cooling	制冷量 kW Cooling capacity	99	137	177	227	278	320	350	378	419	470	498	556	640	700										
	功率 kW power	21.4	28.2	35.4	43.8	53.5	60.9	67.0	73.1	81.3	89.2	92.7	107.0	121.8	134.0										
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C																							
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C																							
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	105	143	186	239	293	333	365	395	436	495	526	585	666	729									
		功率 kW power	27.4	36.1	45.3	56.6	69.2	78.0	85.8	93.6	104.1	114.9	120.1	138.4	155.9	171.5									
	变工况 Condition out water changes	制热量 kW Heating capacity	97	130	169	222	271	301	330	358	396	458	481	542	602	660									
		功率 kW power	29.4	38.7	48.6	62.5	76.5	83.7	92.1	100.5	111.8	127.1	131.6	153.0	167.4	184.2									
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	10°C/~°C																							
使用侧水流量 m³/h Water flow rate of applied side		17.0	23.5	30.4	39.0	47.7	54.9	60.1	64.9	71.9	80.7	85.5	95.5	109.9	120.2										
热源侧水流量 m³/h Water flow rate of heat source side		20.7	28.4	36.6	46.6	57.1	65.6	71.8	77.7	86.1	96.3	101.7	114.1	131.2	143.6										
运行控制方式 Operating control way		可编程控制器 programmable controller																							
能量控制 Energy control		33 ~ 100%				25% ~ 100%						每台压缩机25% ~ 100% Per Compressor 25%~100%													
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire																							
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor																							
	数量 Quantity	1	1	1	1	1	1	1	1	1	1	1	2	2	2										
	加油量 Oil charge	7	7	7	14	13	16	16	16	15	13	13	2×13	2×16	2×16										
制冷剂 Refrigerant	种类 Type	HCFC22																							
	充注量 kg Charge quantity	21	29	37	47	58	67	73	79	87	98	104	116	133	146										
蒸发器 Evaporator	型式 Pattern	壳管式换热器 Shell and tube type exchanger																							
	水侧压力降 kpa Water side pressure drop	65					70																		
	接管规格 DN Pipe specification DN	65	65	80	80	100	100	100	100	100	125	125	125	150	150										
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger																							
	水侧压力降 kpa Water side pressure drop	70																							
	接管规格 DN Pipe specification DN	65	65	80	80	100	100	100	100	100	125	125	125	150	150										
外形尺寸 External dimensions	L mm	2400	2400	2700	3200	3200	3300	3400	3400	3400	3700	3700	3800	4000	4100										
	W mm	1100	1100	1150	1250	1250	1250	1250	1250	1250	1270	1270	1270	1300	1400										
	H mm	1300	1350	1350	1550	1600	1600	1680	1680	1680	1820	1820	1860	1860	1880										
机组重量 Weight		kg	1360	1480	1540	1600	2300	2400	2440	2500	2550	2680	2800	3300	3900	4500									

注:

- 能量控制: 标准配置33% ~ 100%为三段式, 25% ~ 100%为四段式; 若需连续控制, 须特殊定货。
- 工作范围: 制冷: 使用侧冷水进水温度10°C ~ 25°C, 出水温度5°C ~ 20°C; 制热: 使用侧热水进水温度40°C ~ 45°C, 出水温度45°C ~ 50°C。

Note:

- Energy control: Noted dispose 33%~100% is three sections; 25%~100% is four sections; If needs the stepless control, must specially order.
- Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.



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Ultra-low temperature air cooled cold/hot water chiller



低环境温度空

Low ambient temperature

地下环路式(地埋管)水源热泵机组技术参数表2(HCFC22)

Underground loop type (Embedded pipes) Main technology performance parameter list 2 of water-source heat pump system(HCFC22)

机组型号SRBLG Unit model SRBLG		760H	840H	940H	1000H	1140H	1220H	1340H	1440H	1540H	1660H	1760H	1900H	
制冷 Cooling	制冷量 kW Cooling capacity	756	838	940	996	1136	1220	1336	1440	1536	1652	1758	1896	
	功率 kW power	146.2	162.6	178.4	185.4	210.8	226.4	247.4	262.4	282.2	306.8	315.8	328.2	
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C												
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C												
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	791	871	990	1052	1202	1291	1412	1518	1587	1704	1817	1967
		功率 kW power	187.2	208.3	229.8	240.1	272.6	293.1	320.1	339.8	362.8	392.6	406.8	424.7
	变工况 Condition out water changes	制热量 kW Heating capacity	716	792	916	962	1096	1178	1288	1382	1438	1544	1646	1782
		功率 kW power	201.0	223.6	254.2	263.2	298.8	321.0	350.6	371.0	388.8	421.6	437.8	457.0
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10°C/~°C												
使用侧水流量 m³/h Water flow rate of applied side		129.8	143.9	161.4	171.0	195.0	209.4	229.4	247.2	263.7	283.6	301.8	325.5	
热源侧水流量 m³/h Water flow rate of heat source side		155.3	172.3	192.6	203.4	231.9	249.0	272.6	293.1	313.2	337.2	357.0	382.9	
运行控制方式 Operating control way		可编程控制器 programmable controller												
能量控制 Energy control		每台压缩机25% ~ 100% Per Compressor 25%~100%												
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire												
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor												
	数量 Quantity	2	2	2	2	2	2	2	2	2	2	2	2	
	加油量 Oil charge	2×16	2×15	2×13	2×13	2×19	2×23	2×23	2×23	2×23	2×28	2×28	2×23	
制冷剂 Refrigerant	种类 Type	HCFC22												
	充注量 kg Charge quantity	158	175	196	208	237	254	279	300	320	345	367	395	
蒸发器 Evaporator	型式 Pattern	壳管式换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	65												
	接管规格 DN Pipe specification DN	150	150	150	200	200	200	200	200	200	200	200	200	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	70												
	接管规格 DN Pipe specification DN	150	150	150	200	200	200	200	200	200	200	200	200	
外形尺寸 External dimensions	L mm	4100	4200	4200	4200	4400	4600	4700	4700	4800	4800	4900	4900	
	W mm	1400	1520	1500	1500	1500	1550	1550	1700	1800	1800	1900	1900	
	H mm	1880	1880	1700	1700	1750	1800	1830	1900	2100	2100	2110	2110	
机组重量 Weight		kg	4600	4800	5100	5400	5830	6000	7200	7600	8100	8500	8900	9800

注:

- 1、能量控制：标准配置33% ~ 100%为三段式，25% ~ 100%为四段式；若需连续控制，须特殊定货。
- 2、工作范围：制冷：使用侧冷水进水温度10°C ~ 25°C，出水温度5°C ~ 20°C；制热：使用侧热水进水温度40°C ~ 45°C，出水温度45°C ~ 50°C。

Note:

- 1、Energy control: Noted dispose 33%~100% is three sections; 25%~100% is four sections; If needs the stepless control, must specially order.
- 2、Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调机-吊顶式冷热风型
Ceiling handing unit-suspension type cold and hot type单元式空调机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)水源热泵机组技术参数表1(全热回收型、HCFC22)

Underground loop type (Embedded pipes) Tech parameter table 1 of water source heat pump
(total heat recovery type HCFC22)

机组型号SRBLG Unit model SRBLG		100HS	140HS	180HS	230HS	280HS	320HS	350HS	380HS	420HS	470HS	500HS	560HS	640HS	700HS										
制冷 Cooling	制冷量 kW Cooling capacity	99	137	177	227	278	320	350	378	419	470	498	556	640	700										
	功率 kW power	21.4	28.2	35.4	43.8	53.5	60.9	67.0	73.1	81.3	89.2	92.7	107.0	121.8	134.0										
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C																							
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C																							
制热 Heating	标准工况 出水45°C Condition out water standards	制热量 kW Heating capacity	105	143	186	239	293	333	365	395	436	495	526	585	666	729									
	功率 kW power	27.4	36.1	45.3	56.6	69.2	78.0	85.8	93.6	104.1	114.9	120.1	138.4	155.9	171.5										
	变工况 出水50°C Condition out water changes	制热量 kW Heating capacity	97	130	169	222	271	301	330	358	396	458	481	542	602	660									
	功率 kW power	29.4	38.7	48.6	62.5	76.5	83.7	92.1	100.5	111.8	127.1	131.6	153.0	167.4	184.2										
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10 °C / ~ °C																							
全热回收 Total heat recovery	热量 Quantity of heat	99	135	175	225	276	314	344	373	411	467	496	552	628	688										
	热回收水温度 Quantity of heat	45 °C ~ 50 °C																							
	水流量 m³/h Water flow	17.1	23.3	30.1	38.8	47.5	54.1	59.3	64.2	70.8	80.4	85.4	95.1	108.2	118.5										
	接管规格 DN Pipe specification	65	65	80	80	100	100	100	100	100	125	125	125	150	150										
使用侧水流量 m³/h Water flow rate of applied side		17.0	23.5	30.4	39.0	47.7	54.9	60.1	64.9	71.9	80.7	85.5	95.5	109.9	120.2										
热源侧水流量 m³/h Water flow rate of heat source side		20.7	28.4	36.6	46.6	57.1	65.6	71.8	77.7	86.1	96.3	101.7	114.1	131.2	143.6										
运行控制方式 Operating control way		可编程控制器 programmable controller																							
能量控制 Energy control		33 ~ 100%				25% ~ 100%				每台压缩机25% ~ 100% Per Compressor 25%-100%															
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire																							
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor																							
	数量 Quantity	1	1	1	1	1	1	1	1	1	1	1	2	2	2										
	加油量 Oil charge	7	7	7	14	13	16	16	16	15	13	13	2×13	2×16	2×16										
制冷剂 Refrigerant	种类 Type	HCFC22																							
	充注量 kg Charge quantity	21	29	37	47	58	67	73	79	87	98	104	116	133	146										
蒸发器 Evaporator	型式 Pattern	壳管式换热器 Shell and tube type exchanger																							
	水侧压力降 kpa Water side pressure drop	65						70																	
	接管规格 DN Pipe specification DN	65	65	80	80	100	100	100	100	125	125	125	150	150	150										
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger																							
	水侧压力降 kpa Water side pressure drop	70																							
	接管规格 DN Pipe specification DN	65	65	80	80	100	100	100	100	125	125	125	150	150	150										
外形尺寸 External dimensions	L mm	2400	2400	2700	3200	3200	3300	3400	3400	3400	3700	3700	3800	4000	4100										
	W mm	1100	1100	1150	1250	1250	1250	1250	1250	1250	1270	1270	1270	1300	1400										
	H mm	1300	1350	1350	1550	1600	1600	1680	1680	1680	1820	1820	1860	1860	1880										
机组重量 Weight		kg	1360	1480	1540	1600	2300	2400	2440	2500	2550	2680	2800	3300	3900	4500									

注：1、能量控制：标准配置33% ~ 100%为三段式，25% ~ 100%为四段式；若需连续控制，须特殊定货。

2、工作范围：制冷：使用侧冷水进水温度10°C ~ 25°C，出水温度5°C ~ 20°C；制热：使用侧热水进水温度40°C ~ 45°C，出水温度45°C ~ 50°C。

Note: 1. Energy control: Noted dispose 33%~100% is three sections; 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

离心式水冷冷水机组
Centrifugal water cooled water chiller水冷冷水机组
Water-cooling chiller system地下环路式(地埋管)水源热泵机组
Underground water circuit (embedded pipeline) water source heat pump units地下水式水源热泵机组
Underground water circulating type water source heat pump units风冷冷(热)水机组
Air cooled cold/hot water chiller超低温风冷冷(热)水机组
Ultra-low temperature air cooled cold/hot water chiller低环境温度空
Low ambient temperature

地下环路式(地埋管)水源热泵机组技术参数表2(全热回收型、HCFC22)

Underground loop type (Embedded pipes) Tech parameter table 2 of water source heat pump (total heat recovery type HCFC22)

机组型号SRBLG Unit model SRBLG		760HS	840HS	940HS	1000HS	1140HS	1220HS	1340HS	1440HS	1540HS	1660HS	1760HS	1900HS	
制冷 Cooling	制冷量 kW Cooling capacity	756	838	940	996	1136	1220	1336	1440	1536	1652	1758	1896	
	功率 kW power	146.2	162.6	178.4	185.4	210.8	226.4	247.4	262.4	282.2	306.8	315.8	328.2	
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C												
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C												
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	791	871	990	1052	1202	1291	1412	1518	1587	1704	1817	1967
	功率 kW power	187.2	208.3	229.8	240.1	272.6	293.1	320.1	339.8	362.8	392.6	406.8	424.7	
	变工况 Condition out water changes	制热量 kW Heating capacity	716	792	916	962	1096	1178	1288	1382	1438	1544	1646	1782
	功率 kW power	201.0	223.6	254.2	263.2	298.8	321.0	350.6	371.0	388.8	421.6	437.8	457.0	
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10 °C / ~ °C												
全热回收 Total heat recovery	热量 Quantity of heat	746	822	934	992	1134	1218	1332	1432	1496	1608	1714	1856	
	热回收水温度 Quantity of heat	45 °C ~ 50 °C												
	水流量 m³/h Water flow	128.5	141.6	160.9	170.9	195.3	209.8	229.4	246.7	257.7	277.0	295.2	319.7	
	接管规格 DN Pipe specification	150	150	150	200	200	200	200	200	200	200	250	250	
使用侧水流量 m³/h Water flow rate of applied side		129.8	143.9	161.4	171.0	195.0	209.4	229.4	247.2	263.7	283.6	301.8	325.5	
热源侧水流量 m³/h Water flow rate of heat source side		155.3	172.3	192.6	203.4	231.9	249.0	272.6	293.1	313.2	337.2	357.0	382.9	
运行控制方式 Operating control way		可编程控制器 programmable controller												
能量控制 Energy control		每台压缩机 25% ~ 100% Per Compressor 25%-100%												
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire												
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor												
	数量 Quantity	2	2	2	2	2	2	2	2	2	2	2	2	
	加油量 Oil charge	2 × 16	2 × 15	2 × 13	2 × 13	2 × 19	2 × 23	2 × 23	2 × 23	2 × 23	2 × 28	2 × 28	2 × 23	
制冷剂 Refrigerant	种类 Type	HCFC22												
	充注量 kg Charge quantity	158	175	196	208	237	254	279	300	312	345	367	395	
蒸发器 Evaporator	型式 Pattern	壳管式换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	65												
	接管规格 DN Pipe specification DN	150	150	150	200	200	200	200	200	200	200	200	200	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	70												
	接管规格 DN Pipe specification DN	150	150	150	200	200	200	200	200	200	200	200	200	
外形尺寸 External dimensions	L mm	4100	4200	4200	4200	4400	4600	4700	4700	4800	4800	4900	4900	
	W mm	1400	1520	1500	1500	1500	1550	1550	1700	1800	1800	1900	1900	
	H mm	1880	1880	1700	1700	1750	1800	1830	1900	2100	2100	2110	2110	
机组重量 Weight		kg	4600	4800	5100	5400	5830	6000	7200	7600	8100	8500	8900	9800

注：1、能量控制：标准配置33% ~ 100%为三段式，25% ~ 100%为四段式；若需连续控制，须特殊定货。

2、工作范围：制冷：使用侧冷水进水温度10°C ~ 25°C，出水温度5°C ~ 20°C；制热：使用侧热水进水温度40°C ~ 45°C，出水温度45°C ~ 50°C。

Note: 1. Energy control; Noted dispose 33%~100% is three sections; 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调机-吊顶式冷热风型
Unit type air handling unit-suspension type hot and cold type单元式空调机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)满液式水源热泵机组技术参数表1(HCFC22)

Underground loop type (Embedded pipes) Technology performance parameter list 1 of flooded water-source heat pump system(HCFC22)

机组型号SRBLG Unit model SRBLG		220HM	260HM	290HM	310HM	340HM	390HM	420HM	470HM	530HM	580HM	620HM	680HM				
制冷 Cooling	制冷量 kW Cooling capacity	216	260	287	308	338	389	420	466	526	574	616	676				
	功率 kW power	39.3	47.9	52.1	54.9	58.7	68.0	74.1	82.5	91.4	104.2	109.8	117.4				
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C															
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30°C															
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	222	270	296	322	345	399	432	477	548	591	644	689			
		功率 kW power	50.3	61.2	66.7	72.2	75.1	87.0	94.9	105.6	120.4	133.4	144.3	150.2			
	变工况 Condition out water changes	制热量 kW Heating capacity	201	245	268	294	312	361	391	432	499	536	588	624			
		功率 kW power	54.0	65.7	71.6	76.7	80.6	93.4	101.9	113.3	127.8	143.2	153.4	161.2			
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	10°C/~°C															
使用侧水流 m³/h Water flow rate of applied side		37.1	44.6	49.3	52.9	58.0	66.8	72.1	80.0	90.3	98.5	105.8	116.1				
热源侧水流 m³/h Water flow rate of heat source side		44.0	53.0	58.4	62.5	68.3	78.7	85.1	94.4	106.3	116.8	125.0	136.6				
运行控制方式 Operating control way		可编程控制器 programmable controller															
能量控制 Energy control		25%~100%								每台压缩机25%~100% Per Compressor 25%~100%							
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire															
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor															
	数量 Quantity	1	1	1	1	1	1	1	1	1	2	2	2				
	加油量 Oil charge	8	14	14	13	16	16	16	15	13	2×14	2×13	2×16				
制冷剂 Refrigerant	种类 Type	HCFC22															
	充注量 kg Charge quantity	68	82	90	97	106	122	132	146	165	180	194	212				
蒸发器 Evaporator	型式 Pattern	满液式壳管换热器 Shell and tube type exchanger															
	水侧压力降 kpa Water side pressure drop	65															
	接管规格 DN Pipe specification DN	80	80	100	100	100	100	100	125	125	125	125	150				
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger															
	水侧压力降 kpa Water side pressure drop	70															
	接管规格 DN Pipe specification DN	80	80	100	100	100	100	100	125	125	125	125	150				
外形尺寸 External dimensions	L mm	3300	3600	3600	3600	3600	3600	3600	3600	3600	3700	3800	3800				
	W mm	1300	1400	1400	1400	1450	1450	1500	1500	1600	1600	1650	1650				
	H mm	1550	1600	1600	1620	1620	1700	1700	1780	1780	1780	1780	1780				
机组重量 Weight		kg	1800	2000	2200	2400	2500	2800	2900	3100	3200	3400	3600	3800			

注:

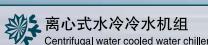
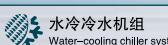
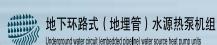
1、能量控制: 标准配置25%~100%为四段式, 若需连续控制, 须特殊定货。

2、工作范围: 制冷: 使用侧冷水进水温度10°C~25°C, 出水温度5°C~20°C; 制热: 使用侧热水进水温度40°C~45°C, 出水温度45°C~50°C。

Note:

1. Energy control: Noted dispose 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

离心式水冷冷水机组
Centrifugal water cooled water chiller水冷冷水机组
Water-cooled chiller system地下环路式(地埋管)水源热泵机组
Underground water circuit (embedded pipeline) water source heat pump units地下水式水源热泵机组
Underground water circulation type water source heat pump units风冷冷(热)水机组
Air cooled cold/hot water chiller超低温风冷冷(热)水机组
Ultra-low temperature air cooled cold/hot water chiller低环境温度空
Low ambient temperature

地下环路式(地埋管)满液式水源热泵机组技术参数表2(HCFC22)

Underground loop type (Embedded pipes) Technology performance parameter list 2 of flooded water-source heat pump system(HCFC22)

机组型号SRBLG Unit model SRBLG		780HM	840HM	940HM	1060HM	1180HM	1280HM	1360HM	1500HM	1680HM	1840HM	1960HM	
制冷 Cooling	制冷量 kW Cooling capacity	778	840	932	1052	1172	1274	1360	1492	1672	1834	1956	
	功率 kW power	136.0	148.2	165.0	182.8	202.2	219.2	232.2	253.6	280.4	311.0	330.4	
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C											
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25°C / 30°C											
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	797	865	954	1096	1191	1302	1412	1545	1696	1866	1991
		功率 kW power	174.0	189.8	211.1	240.8	258.8	280.3	305.5	333.7	358.9	398.1	422.6
	变工况 Condition out water changes	制热量 kW Heating capacity	722	782	864	998	1078	1176	1286	1406	1532	1688	1800
		功率 kW power	186.8	203.8	226.6	255.6	277.8	301.0	324.4	354.4	385.4	427.4	454.0
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10°C/~°C											
使用侧水流量 m³/h Water flow rate of applied side		133.6	144.2	160.0	180.6	201.2	218.7	233.5	256.1	287.0	314.8	335.8	
热源侧水流量 m³/h Water flow rate of heat source side		157.4	170.1	188.9	212.6	236.6	257.1	274.1	300.5	336.1	369.3	393.6	
运行控制方式 Operating control way		可编程控制器 programmable controller											
能量控制 Energy control		每台压缩机25% ~ 100% Per Compressor 25%~100%											
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire											
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor											
	数量 Quantity	2	2	2	2	2	2	2	2	2	2	2	
	加油量 Oil charge	2×16	2×16	2×15	2×13	2×20	2×23	2×19	2×23	2×23	2×28	2×28	
制冷剂 Refrigerant	种类 Type	HCFC22											
	充注量 kg Charge quantity	245	264	293	331	368	400	427	469	525	576	615	
蒸发器 Evaporator	型式 Pattern	满液式壳管换热器 Shell and tube type exchanger											
	水侧压力降 kpa Water side pressure drop	65											
	接管规格 DN Pipe specification DN	150	150	150	150	150	200	200	200	200	200	250	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger											
	水侧压力降 kpa Water side pressure drop	70											
	接管规格 DN Pipe specification DN	150	150	150	150	150	200	200	200	200	200	250	
外形尺寸 External dimensions	L mm	4300	4500	4500	4500	4600	4600	4700	4700	4800	4900	4900	
	W mm	1650	1650	1700	1750	1800	1800	1850	1850	1950	1980	1980	
	H mm	1780	1800	1850	1850	1900	1900	1900	1950	1970	2010	2010	
机组重量 Weight		kg	4300	4700	5700	6000	6700	7000	7500	8500	9200	9600	11000

注:

1、能量控制: 标准配置25% ~ 100%为四段式, 若需连续控制, 须特殊定货。

2、工作范围: 制冷: 使用侧冷水进水温度10°C ~ 25°C, 出水温度5°C ~ 20°C; 制热: 使用侧热水进水温度40°C ~ 45°C, 出水温度45°C ~ 50°C。

Note:

1、Energy control: Noted dispose 25%~100% is four sections; If needs the stepless control, must specially order.

2、Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调调节机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调调节机-吊顶式冷热风型
Ceiling handing unit-type cold and hot air type单元式空调调节机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)满液式水源热泵机组技术参数表1(全热回收型、HCFC22)

Underground loop type (Embedded pipes) Tech parameter table 1 of flooded water source heat pump (total heat recovery type、HCFC22)

机组型号SRBLG Unit model SRBLG		220HMS	260HMS	290HMS	310HMS	340HMS	390HMS	420HMS	470HMS	530HMS	580HMS	620HMS	680HMS				
制冷 Cooling	制冷量 kW Cooling capacity	216	260	287	308	338	389	420	466	526	574	616	676				
	功率 kW power	39.3	47.9	52.1	54.9	58.7	68.0	74.1	82.5	91.4	104.2	109.8	117.4				
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C															
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C															
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	222	270	296	322	345	399	432	477	548	591	644	689			
		功率 kW power	50.3	61.2	66.7	72.2	75.1	87.0	94.9	105.6	120.4	133.4	144.3	150.2			
	变工况 Condition out water changes	制热量 kW Heating capacity	201	245	268	294	312	361	391	432	499	536	588	624			
		功率 kW power	54.0	65.7	71.6	76.7	80.6	93.4	101.9	113.3	127.8	143.2	153.4	161.2			
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10 °C / ~ °C															
全热回收 Total heat recovery	热量 Quantity of heat	209	255	279	304	325	376	408	450	517	558	608	650				
	热回收水温度 Quantity of heat	45 °C ~ 50 °C															
	水流量 m³/h Water flow	36.0	43.9	48.1	52.4	56.0	64.8	70.3	77.5	89.1	96.1	104.7	112.0				
	接管规格 DN Pipe specification	80	80	100	100	100	100	100	125	125	125	125	150				
使用侧水流量 m³/h Water flow rate of applied side		37.1	44.6	49.3	52.9	58.0	66.8	72.1	80.0	90.3	98.5	105.8	116.1				
热源侧水流量 m³/h Water flow rate of heat source side		44.0	53.0	58.4	62.5	68.3	78.7	85.1	94.4	106.3	116.8	125.0	136.6				
运行控制方式 Operating control way		可编程控制器 programmable controller															
能量控制 Energy control		25% ~ 100%								每台压缩机25%~100% Per Compressor 25%~100%							
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire															
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 Imported semi-hermetic screw compressor															
	数量 Quantity	1	1	1	1	1	1	1	1	1	2	2	2				
	加油量 Oil charge	8	14	14	13	16	16	16	15	13	2×14	2×13	2×16				
制冷剂 Refrigerant	种类 Type	HCFC22															
	充注量 kg Charge quantity	68	82	90	97	106	122	132	146	165	180	194	212				
蒸发器 Evaporator	型式 Pattern	满液式壳管换热器 Shell and tube type exchanger															
	水侧压力降 kpa Water side pressure drop	65															
	接管规格 DN Pipe specification DN	80	80	100	100	100	100	100	125	125	125	125	150				
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger															
	水侧压力降 kpa Water side pressure drop	70															
	接管规格 DN Pipe specification DN	80	80	100	100	100	100	100	125	125	125	125	150				
外形尺寸 External dimensions	L mm	3300	3600	3600	3600	3600	3600	3600	3600	3600	3700	3800	3800				
	W mm	1300	1400	1400	1400	1450	1450	1500	1500	1600	1600	1650	1650				
	H mm	1550	1600	1600	1620	1620	1700	1700	1780	1780	1780	1780	1780				
机组重量 Weight		kg	1800	2000	2200	2400	2500	2800	2900	3100	3200	3400	3600	3800			

注：1、能量控制：标准配置25%~100%为四段式，若需连续控制，须特殊定货。

2、工作范围：制冷：使用侧冷水进水温度10°C~25°C，出水温度5°C~20°C；制热：使用侧热水进水温度40°C~45°C，出水温度45°C~50°C。

Note: 1. Energy control: Standard dispose 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

离心式水冷冷水机组
Centrifugal water cooled water chiller水冷冷水机组
Water-cooling chiller system地下环路式(地埋管)水源热泵机组
Underground water circuit (embedded pipeline) water source heat pump units地下水式水源热泵机组
Underground water circulating type water source heat pump units风冷冷(热)水机组
Air cooled cold/hot water chiller超低温风冷冷(热)水机组
Ultra-low temperature air cooled cold/hot water chiller低环境温度空
Low ambient temperature

地下环路式(地埋管)满液式水源热泵机组技术参数表2(全热回收型、HCFC22)

Underground loop type (Embedded pipes) Tech parameter table 2 of flooded water source heat pump (total heat recovery type、 HCFC22)

机组型号SRBLG Unit model SRBLG		780HMS	840HMS	940HMS	1060HMS	1180HMS	1280HMS	1360HMS	1500HMS	1680HMS	1840HMS	1960HMS	
制冷 Cooling	制冷量 kW Cooling capacity	778	840	932	1052	1172	1274	1360	1492	1672	1834	1956	
	功率 kW power	136	148.2	165	182.8	202.2	219.2	232.2	253.6	280.4	311.0	330.4	
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C											
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C											
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	797	865	954	1096	1191	1302	1412	1545	1696	1866	1991
	功率 kW power	174.0	189.8	211.1	240.8	258.8	280.3	305.5	333.7	358.9	398.1	422.6	
	变工况 Condition out water changes	制热量 kW Heating capacity	722	782	864	998	1078	1176	1286	1406	1532	1688	1800
	功率 kW power	186.8	203.8	226.6	255.6	277.8	301.0	324.4	354.4	385.4	427.4	454.0	
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10 °C / ~ °C											
全热回收 Total heat recovery	热量 Quantity of heat	752	816	900	1034	1124	1228	1332	1458	1600	1760	1878	
	热回收水温度 Quantity of heat	45 °C ~ 50 °C											
	水流量 m³/h Water flow	129.5	140.6	155.0	178.1	193.6	211.5	229.4	251.1	275.6	303.2	323.5	
	接管规格 DN Pipe specification	150	150	150	150	150	200	200	200	250	250	250	
使用侧水流量 m³/h Water flow rate of applied side		133.6	144.2	160.0	180.6	201.2	218.7	233.5	256.1	287.0	314.8	335.8	
热源侧水流量 m³/h Water flow rate of heat source side		157.4	170.1	188.9	212.6	236.6	257.1	274.1	300.5	336.1	369.3	393.6	
运行控制方式 Operating control way		可编程控制器 programmable controller											
能量控制 Energy control		每台压缩机25% ~ 100% Per Compressor 25% ~ 100%											
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire											
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor											
	数量 Quantity	2	2	2	2	2	2	2	2	2	2	2	
	加油量 Oil charge	2×16	2×16	2×15	2×13	2×20	2×23	2×19	2×23	2×23	2×28	2×28	
制冷剂 Refrigerant	种类 Type	R22											
	充注量 kg Charge quantity	245	264	293	331	368	400	427	469	525	576	615	
蒸发器 Evaporator	型式 Pattern	满液式壳管换热器 Shell and tube type exchanger											
	水侧压力降 kpa Water side pressure drop	65											
	接管规格 DN Pipe specification DN	150	150	150	150	150	200	200	200	200	200	250	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger											
	水侧压力降 kpa Water side pressure drop	70											
	接管规格 DN Pipe specification DN	150	150	150	150	150	200	200	200	200	200	250	
外形尺寸 External dimensions	L mm	4300	4500	4500	4500	4600	4600	4700	4700	4800	4900	4900	
	W mm	1650	1650	1700	1750	1800	1800	1850	1850	1950	1980	1980	
	H mm	1780	1800	1850	1850	1900	1900	1900	1950	1970	2010	2010	
机组重量 Weight		kg	4300	4700	5700	6000	6700	7000	7500	8500	9200	9600	11000

注：1、能量控制：标准配置25% ~ 100%为四段式，若需连续控制，须特殊定货。

2、工作范围：制冷：使用侧冷水进水温度10°C ~ 25°C，出水温度5°C ~ 20°C；制热：使用侧热水进水温度40°C ~ 45°C，出水温度45°C ~ 50°C。

Note: 1. Energy control: Noted dispose 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调调节机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调调节机-吊顶式冷热风型
Ceiling air handling unit-suspension type cold and hot wind type单元式空调调节机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)水源热泵机组技术参数表 (HCFC134a)

Underground loop type (Embedded pipes) Technology parameter list of the water-source heat pump system (R134a)

机组型号SRBLG Unit model SRBLG		65HA	90HA	120HA	160HA	190HA	215HA	240HA	280HA	320HA	350HA	380HA	410HA	440HA	480HA	560HA	640HA	700HA	760HA	820HA	880HA	960HA	1100HA	1140HA	1280HA																				
制冷 Cooling	制冷量 kW Cooling capacity	65	90	116	157	190	213	239	276	316	346	380	408	440	480	552	632	692	760	816	880	960	1096	1138	1278																				
	功率 kW power	13.7	18.0	22.7	30.5	36.5	40.0	44.8	53.2	57.1	65.5	68.4	72.6	77.6	84.5	106.4	114.2	131.0	136.8	145.2	155.2	169.0	200.4	209.0	233.0																				
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C																																											
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C																																											
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	65	92	121	163	199	219	251	286	329	354	395	424	456	498	572	657	708	791	848	912	996	1119	1166	1308																			
	变工况 Condition out water changes	制热量 kW Heating capacity	17.5	23.0	29.0	38.9	49.7	51.1	61.1	67.8	77.9	83.6	93.2	99.1	105.8	115.2	135.6	155.7	167.3	186.4	198.1	211.5	230.4	255.8	266.7	297.2																			
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	10 °C / ~ °C																																											
	使用侧水流量 m³/h Water flow rate of applied side	11.2	15.5	19.9	27.0	32.6	36.6	41.0	47.4	54.2	59.4	65.2	70.0	75.5	82.4	94.8	108.5	118.8	130.5	140.1	151.1	164.8	188.2	195.4	219.4																				
热源侧水流量 m³/h Water flow rate of heat source side		13.5	18.6	23.9	32.3	39.0	43.6	48.9	56.7	64.2	70.8	77.2	82.7	89.1	97.2	113.4	128.5	141.7	154.4	165.5	178.2	194.4	223.2	231.9	260.1																				
运行控制方式 Operating control way		可编程控制器 programmable controller																																											
能量控制 Energy control		33%~100%		25%~100%											每台压缩机25%~100% Per Compressor 25%-100%																														
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire																																											
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor																																											
	数量 Quantity	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2																					
	加油量 Oil charge	7	7	7	14	13	14	13	15	13	20	19	19	23	23	2x15	2x13	2x20	2x19	2x19	2x23	2x28	2x28	2x28																					
制冷剂 Refrigerant	种类 Type	HCFC 134a																																											
	充注量 kg Charge quantity	17	24	30	41	50	56	63	72	83	91	100	107	115	126	145	166	182	199	214	231	252	287	298	335																				
蒸发器 Evaporator	型式 Pattern	壳管式换热器 Shell and tube type exchanger																																											
	水侧压力降 kpa Water side pressure drop	65																																											
	接管规格 DN Pipe specification DN	65	65	65	65	80	80	80	100	100	100	125	125	125	125	150	150	150	150	150	200	200	200	200																					
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger																																											
	水侧压力降 kpa Water side pressure drop	65																																											
	接管规格 DN Pipe specification DN	65	65	65	65	80	80	80	100	100	100	125	125	125	125	150	150	150	150	150	200	200	200	200																					
外形尺寸 External dimensions	L	mm	2200	2800	3000	3200	3200	3200	3200	3400	3400	3400	3400	3400	3500	3800	3900	4200	4600	4600	4600	4700	4700	4900																					
	W	mm	1000	1100	1100	1200	1200	1200	1200	1350	1350	1350	1450	1450	1500	1500	1500	1500	1500	1500	1500	1500	1600	1600																					
	H	mm	1120	1300	1350	1350	1490	1490	1650	1650	1700	1700	1700	1820	1820	1900	1700	1700	1750	1750	1750	1820	1820	1820																					
机组重量 Weight		kg	1100	1480	1590	1860	2300	2400	2700	2900	3100	3300	3400	3600	3800	3900	4200	4900	5800	6000	6800	7400	7800	8200	8300	8400																			
噪声 Noise		dB(A)	69	70	71	72	74	74	74	74	74	74	75	75	76	77	77	77	77	78	78	78	78	78	78																				

注:

1、能量控制: 标准配置 33%~100%为三段式, 25%~100%为四段式; 若需连续控制, 须特殊定货。

2、工作范围: 制冷: 使用侧冷水进水温度10°C~25°C, 出水温度5°C~20°C。

制热: 使用侧热水进水温度40°C~55°C, 出水温度45°C~60°C。

Note: 1. Energy control: Noted dispose 33%~100% is three sections, 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 55°C; the temperature leaving from 45°C to 60°C.



离心式水冷冷水机组

Centrifugal water cooled water chiller

水冷冷水机组

Water-cooling chiller system



地下环路式(地埋管)水源热泵机组

Underground water circuit (embedded pipeline) water source heat pump units



地下水式水源热泵机组

Underground water circulating type water source heat pump units



风冷冷(热)水机组

Air cooled cold/hot water chiller



超低温风冷冷(热)水机组

Ultra-low temperature air cooled cold/hot water chiller



低环境温度空

Low ambient temperature

地下环路式(地埋管)降膜式水源热泵机组技术参数表1 (HCFC22)

Underground loop type (Embedded pipes) Technology performance parameter list 1 of
Falling-film type water source heat pump(HCFC22)

机组型号SRBLG Unit model SRBLG		260HJ	290HJ	320HJ	370HJ	420HJ	450HJ	480HJ	540HJ	580HJ	640HJ	740HJ	840HJ	900HJ	
制冷量 Cooling	制冷量 kW Cooling capacity	260	292	320	370	422	450	480	540	584	640	740	844	900	
	功率 kW power	46.2	52.1	55.9	64.0	75.0	77.8	82.6	91.4	104.2	111.8	128	150	155.6	
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C													
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C													
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	259	290	319	369	421	448	478	538	582	638	738	841	897
		功率 kW power	60.7	65.8	72.1	83.4	96.8	101.6	107.1	119.0	131.5	144.1	166.9	193.7	203.2
	变工况 Condition out water changes	制热量 kW Heating capacity	234	263	288	333	380	405	432	486	526	576	666	760	810
		功率 kW power	66.1	70.9	78.1	89.8	104.9	108.4	113.9	127.4	141.8	156.2	179.6	209.8	216.8
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10°C/~°C													
使用侧水流量 m ³ /h Water flow rate of applied side		44.6	50.1	54.9	63.5	72.4	77.3	82.4	92.7	100.3	109.9	127.0	144.9	154.5	
热源侧水流量 m ³ /h Water flow rate of heat source side		52.7	59.2	64.7	74.7	85.6	90.9	96.9	108.7	118.5	129.4	149.4	171.1	181.7	
运行控制方式 Operating control way		可编程控制器 programmable controller													
能量控制 Energy control		25%~100% Per Compressor 25%~100%													
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire													
压缩机 Compressor	类型 Type	半封闭螺杆式压缩机 semi-hermetic screw compressor													
	数量 Quantity	1	1	1	1	1	1	1	2	2	2	2	2	2	
	加油量 Oil charge	13	13	13	13	13	13	16	16	2×13	2×13	2×13	2×13	2×13	
制冷剂 Refrigerant	种类 Type	HCFC22													
	充注量 kg Charge quantity	59	67	73	85	96	103	110	123	133	146	169	193	206	
蒸发器 Evaporator	型式 Pattern	降膜式壳管换热器 Falling film type shell and tube heat exchanger													
	水侧压力降 kpa Water side pressure drop	65													
	接管规格 DN Pipe specification DN	80	100	100	100	100	100	125	125	125	125	150	150	150	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger													
	水侧压力降 kpa Water side pressure drop	70													
	接管规格 DN Pipe specification DN	80	100	100	100	100	100	125	125	125	125	150	150	150	
外形尺寸 External dimensions	L mm	3600	3600	3600	3600	3600	3600	3600	3600	3700	3800	4000	4500	4500	
	W mm	1400	1400	1400	1450	1500	1500	1600	1600	1650	1650	1650	1700	1700	
	H mm	1600	1600	1620	1700	1700	1700	1780	1780	1780	1780	1780	1800	1800	
机组重量 Weight		kg	2000	2200	2400	2600	2900	3000	3100	3200	3400	3600	4100	4700	5500

注:

- 1、能量控制: 标准配置25%~100%为四段式, 若需连续控制, 须特殊定货。
- 2、工作范围: 制冷: 使用侧冷水进水温度10°C~25°C, 出水温度5°C~20°C; 制热: 使用侧热水进水温度40°C~45°C, 出水温度45°C~50°C。

Note:

- 1、Energy control: Noted dispose 25%~100% is four sections; If needs the stepless control, must specially order.
- 2、Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调机-吊顶式冷热风型
Ceiling handing unit-air suspension type hot and cold type单元式空调机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)降膜式水源热泵机组技术参数表2 (HCFC22)

Underground loop type (Embedded pipes) Technology performance parameter list 2 of Falling-film type water source heat pump(HCFC22)

机组型号SRBLG Unit model SRBLG		960HJ	1080HJ	1120HJ	1200HJ	1320HJ	1400HJ	1560HJ	1620HJ	1800HJ	1900HJ	2000HJ	2180HJ	
制冷量 Cooling	制冷量 kW Cooling capacity	960	1080	1120	1200	1320	1398	1560	1620	1800	1898	1998	2180	
	功率 kW power	165.2	182.8	187.6	202.2	227.8	233.8	255.6	269.0	302.2	308.0	321.8	342.8	
	使用侧进/出水温度 Temperature of water entering/heating applied side	12 °C / 7 °C												
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C												
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	956	1076	1116	1196	1315	1393	1554	1614	1794	1891	1991	2172
	变工况 Condition out water changes	制热量 kW Heating capacity	214.2	237.9	242.8	260.4	296.4	305.1	334.7	349.2	395.0	412.9	422.4	446.8
	功率 kW power	864	972	1008	1080	1188	1258	1404	1458	1620	1708	1798	1962	
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	227.8	254.8	261.4	279.4	319.8	328.6	360.2	378.4	426.4	434.0	452.4	484.6	
使用侧水流 m³/h Water flow rate of applied side		10°C/~°C												
热源侧水流 m³/h Water flow rate of heat source side		164.8	185.4	192.3	206.0	226.6	240.0	267.8	278.1	309.0	325.8	343.0	374.2	
热源侧水流 m³/h Water flow rate of heat source side		193.7	217.4	225.1	241.4	266.5	280.9	312.6	325.2	361.9	379.4	399.0	433.9	
运行控制方式 Operating control way		可编程控制器 programmable controller												
能量控制 Energy control		每台压缩机25%~100% Per Compressor 25%-100%												
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire												
压缩机 Compressor	类型 Type	半封闭螺杆式压缩机 semi-hermetic screw compressor												
	数量 Quantity	2	2	2	2	2	2	2	2	2	2	2	2	
	加油量 Oil charge	2×16	2×16	2×19	2×20	2×23	2×23	2×23	2×23	2×23	2×23	2×28	2×28	
制冷剂 Refrigerant	种类 Type	HCFC22												
	充注量 kg Charge quantity	219	247	256	274	302	320	357	370	411	434	457	498	
蒸发器 Evaporator	型式 Pattern	降膜式壳管换热器 Falling film type shell and tube heat exchanger												
	水侧压力降 kpa Water side pressure drop	65												
	接管规格 DN Pipe specification DN	150	150	150	200	200	200	200	200	200	200	200	200	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	70												
	接管规格 DN Pipe specification DN	150	150	150	200	200	200	200	200	200	200	200	200	
外形尺寸 External dimensions	L mm	4500	4500	4600	4600	4600	4700	4700	4900	4900	5000	5200	5400	
	W mm	1700	1750	1750	1800	1800	1850	1850	1950	1950	1980	2000	2000	
	H mm	1850	1850	1850	1900	1900	1900	1970	1970	2000	2000	2030	2030	
机组重量 Weight		kg	5700	6000	6300	6700	7000	7500	8500	8900	9200	9400	9600	10000

注:

1、能量控制: 标准配置25%~100%为四段式, 若需连续控制, 须特殊定货。

2、工作范围: 制冷: 使用侧冷水进水温度10°C~25°C, 出水温度5°C~20°C; 制热: 使用侧热水进水温度40°C~45°C, 出水温度45°C~50°C。

Note:

1. Energy control: Noted dispose 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 45°C; the temperature leaving from 45°C to 50°C.

离心式水冷冷水机组
Centrifugal water cooled water chiller水冷冷水机组
Water-cooling chiller system地下环路式(地埋管)水源热泵机组
Underground water circuit (embedded pipeline) water source heat pump units地下水式水源热泵机组
Underground water circulating type water source heat pump units风冷冷(热)水机组
Air cooled cold/hot water chiller超低温风冷冷(热)水机组
Ultra-low temperature air cooled cold/hot water chiller低环境温度空
Low ambient temperature

地下环路式(地埋管)水源热泵机组技术参数表(全热回收型、HCFC134a)

Underground loop type (Embedded pipes) Technology parameter list of the water-source heat pump system (high temperature type、HCFC134a)

机组型号SRBLG Unit model SRBLG		65HAS	90HAS	120HAS	160HAS	190HAS	215HAS	240HAS	280HAS	320HAS	350HAS	380HAS	410HAS	440HAS	480HAS	560HAS	640HAS	700HAS	760HAS	820HAS	880HAS	960HAS	1100HAS	1140HAS	1280HAS																							
制冷 Cooling	制冷量 kW Cooling capacity	65	90	116	157	190	213	239	276	316	346	380	408	440	480	552	632	692	760	816	880	960	1096	1138	1278																							
	功率 kW power	13.7	18.0	22.7	30.5	36.5	40.0	44.8	53.2	57.1	65.5	68.4	72.6	77.6	84.5	106.4	114.2	131.0	136.8	145.2	155.2	169.0	200.4	209.0	233.0																							
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C																																														
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C																																														
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	65	92	121	163	199	219	251	286	329	354	395	424	456	498	572	657	708	791	848	912	996	1119	1166	1308																						
		功率 kW power	17.5	23.0	29.0	38.9	49.7	51.1	61.1	67.8	77.9	83.6	93.2	99.1	105.8	115.2	135.6	155.7	167.3	186.4	198.1	211.5	230.4	255.8	266.7	297.2																						
	变工况 Condition out water changes	制热量 kW Heating capacity	58	82	107	144	180	194	224	253	293	313	352	377	406	443	506	586	626	704	754	812	886	986	1028	1152																						
		功率 kW power	21.7	28.7	36.2	48.4	60.4	63.7	74.2	84.5	94.6	104.2	113.2	120.3	128.5	139.9	169.0	189.2	208.4	226.4	240.6	257.0	279.8	318.8	332.4	370.4																						
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10°C/~°C																																														
全热回收 Total heat recovery	热量 kW Quantity of heat	62	87	114	154	188	207	237	270	310	334	373	400	430	470	540	620	668	746	800	860	940	1056	1100	1234																							
	热回收水温度 Energy recovery water T.	45°C~60°C																																														
	水流量 m³/h Water flow	10.6	15.0	19.6	26.5	32.4	35.7	40.8	46.5	53.4	57.5	64.2	68.9	74.1	81.0	93.0	106.8	115.1	128.5	137.8	148.1	161.9	181.9	189.5	212.6																							
	接管规格DN Pipe specification	65	65	65	65	80	80	80	100	100	100	100	125	125	125	150	150	150	150	150	150	200	200	200	200																							
使用侧水流量 m³/h Water flow rate of applied side		11.2	15.5	19.9	27.0	32.6	36.6	41.0	47.4	54.2	59.4	65.2	70.0	75.5	82.4	94.8	108.5	118.8	130.5	140.1	151.1	164.8	188.2	195.4	219.4																							
热源侧水流量 m³/h Water flow rate of heat source side		13.5	18.6	23.9	32.3	39.0	43.6	48.9	56.7	64.2	70.8	77.2	82.7	89.1	97.2	113.4	128.5	141.7	154.4	165.5	178.2	194.4	223.2	231.9	260.1																							
运行控制方式 Operating control way		可编程控制器 programmable controller																																														
能量控制 Energy control		33%~100%	25%~100% 每台压缩机25%~100% Per Compressor 25%~100%																																													
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire																																														
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor																																														
	数量 Quantity	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2																							
	加油量 Oil charge	7	7	7	14	13	14	13	15	13	20	19	19	23	23	2x15	2x13	2x20	2x19	2x23	2x28	2x28	2x28	2x28	2x28																							
制冷剂 Refrigerant	种类 Type	HCFC134a																																														
	充注量 kg Charge quantity	17	24	30	41	50	56	63	72	83	91	100	107	115	126	145	166	182	199	214	231	252	287	298	335																							
蒸发器 Evaporator	型式 Pattern	壳管式换热器 Shell and tube type exchanger																																														
	水侧压力降 kpa Water side pressure drop	65																																														
	接管规格 DN Pipe specification DN	63	64	65	65	80	80	80	100	100	100	100	125	125	125	150	150	150	150	150	150	200	200	200	200																							
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger																																														
	水侧压力降 kpa Water side pressure drop	65																																														
	接管规格 DN Pipe specification DN	65	65	65	65	80	80	80	100	100	100	100	125	125	125	150	150	150	150	150	150	200	200	200	200																							
外形尺寸 External dimensions	L mm	2200	2800	3000	3200	3200	3200	3200	3400	3400	3400	3500	3800	3900	4200	4600	4600	4700	4700	4900	4900	4900	4900	4900	4900																							
	W mm	1000	1100	1100	1200	1200	1200	1200	1350	1350	1350	1450	1450	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1600	1600																							
	H mm	1120	1300	1350	1350	1400	1400	1400	1650	1650	1650	1700	1700	1700	1820	1820	1900	1700	1700	1750	1750	1750	1750	1820	1820																							
机组重量 Weight		kg	1100	1480	1590	1860	2300	2400	2700	2900	3100	3300	3400	3600	3800	3900	4200	4900	5800	6000	6800	7400	7800	8200	8300	8400																						
噪声 Noise		dB(A)	69	70	71	72	74	74	74	74	74	74	74	75	75	76	77	77	77	77	78	78	78	78	78	78																						

注：1、能量控制：标准配置33%~100%为三段式，25%~100%为四段式，若需连续控制，须特殊定货。

2、工作范围：制冷：使用侧冷水进水温度10°C~25°C，出水温度5°C~20°C；制热：使用侧热水进水温度40°C~55°C，出水温度45°C~60°C。

Note: 1. Energy control: Noted dispose 33%~100% is three sections, 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 55°C; the temperature leaving from 45°C to 60°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调机-吊顶式冷热风型
Ceiling air handling unit-suspension type cold and hot wind type单元式空调机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)满液式水源热泵机组技术参数表1 (HCFC134a)

Underground loop type (Embedded pipes) Technology performance parameter list 1 of the flooded water-source heat pump unit (HCFC134a)

机组型号SRBLG Unit model SRBLG		130HAM	150HAM	180HAM	220HAM	240HAM	270HAM	300HAM	360HAM	390HAM	420HAM	460HAM	500HAM	
制冷量 Cooling	制冷量 kW Cooling capacity	130	146	177	216	239	268	297	356	386	420	460	496	
	功率 kW power	23.0	25.7	30.8	37.0	40.4	45.5	49.6	58.0	66.1	71.4	73.7	78.7	
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C												
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C												
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	133	148	180	222	242	276	304	363	391	426	467	504
	功率 kW power	29.3	32.9	39.4	50.3	51.7	61.9	67.5	78.9	84.5	91.4	100.3	107.2	
	变工况 Condition out water changes	制热量 kW Heating capacity	117	131	159	198	213	246	270	321	344	375	414	445
	功率 kW power	36.5	40.9	48.9	60.9	64.2	74.9	81.7	95.4	105.1	113.4	121.3	129.6	
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10°C/~°C												
使用侧水流量 m³/h Water flow rate of applied side		22.3	25.1	30.4	37.1	41.0	46.0	51.0	61.1	66.3	72.1	79.0	85.2	
热源侧水流量 m³/h Water flow rate of heat source side		26.3	29.6	35.8	43.6	48.1	54.0	59.7	71.3	77.8	84.6	91.9	98.9	
运行控制方式 Operating control way		可编程控制器 programmable controller												
能量控制 Energy control		33%~100%	25% ~ 100%											
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire												
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor												
	数量 Quantity	1	1	1	1	1	1	1	1	1	1	1	1	
	加油量 Oil charge	7	8	14	13	14	13	13	13	20	23	19	23	
制冷剂 Refrigerant	种类 Type	HCFC134a												
	充注量 kg Charge quantity	41	46	56	68	75	84	93	112	121	132	145	156	
蒸发器 Evaporator	型式 Pattern	满液式壳管换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	65												
	接管规格 DN Pipe specification DN	65	65	80	80	80	80	100	100	100	100	125	125	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	70												
	接管规格 DN Pipe specification DN	65	65	80	80	80	80	100	100	100	100	125	125	
外形尺寸 External dimensions	L mm	3300	3500	3500	3600	3600	3600	3600	3800	3800	3800	4000	4000	
	W mm	1200	1200	1200	1300	1300	1300	1300	1400	1400	1400	1400	1400	
	H mm	1500	1600	1600	1600	1630	1630	1630	1700	1700	1700	1700	1770	
机组重量 Weight		kg	1700	1800	2000	2200	2300	2450	2550	2700	2900	3100	3300	3400
噪声 Noise		dB(A)	71	72	72	74	74	74	74	74	74	75	75	

注:

- 能量控制: 标准配置33%~100%为三段式, 25%~100%为四段式, 若需连续控制, 须特殊定货。
- 工作范围: 制冷: 使用侧冷水进水温度10°C~25°C, 出水温度5°C~20°C; 制热: 使用侧热水进水温度40°C~55°C, 出水温度45°C~60°C。

Note:

- Energy control: Noted dispose 33%~100% is three sections, 25%~100% is four sections; If needs the stepless control, must specially order.
- Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 55°C; the temperature leaving from 45°C to 60°C.

离心式水冷冷水机组
Centrifugal water cooled water chiller水冷冷水机组
Water-cooling chiller system地下环路式(地埋管)水源热泵机组
Underground water circuit (embedded pipeline) water source heat pump units地下水式水源热泵机组
Underground water circulation type water source heat pump units风冷冷(热)水机组
Air cooled cold/hot water chiller超低温风冷冷(热)水机组
Ultra-low temperature air cooled cold/hot water chiller低环境温度空
Low ambient temperature

地下环路式(地埋管)满液式水源热泵机组技术参数表2 (HCFC134a)

Underground loop type (Embedded pipes) Technology performance parameter list 2 of the flooded water-source heat pump unit (HCFC134a)

机型型号SRBLG Unit model SRBLG		540HAM	600HAM	720HAM	780HAM	840HAM	920HAM	1000HAM	1080HAM	1240HAM	1300HAM	1440HAM
制冷量 Cooling	制冷量 kW Cooling capacity	536	594	712	772	840	920	992	1072	1232	1297	1436
	功率 kW power	91.0	99.2	116.0	132.2	142.8	147.4	157.4	182.0	198.4	203.4	235.2
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C										
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C										
制热 Heating	标准工况 出水45°C Condition out water standards	551	608	725	782	852	935	1007	1102	1217	1304	1377
	功率 kW power	123.8	135.0	157.731	169.099	182.7	200.564	214.4	247.7	270.0	274.5	300.8
	变工况 出水55°C Condition out water changes	492	540	642	688	750	828	890	984	1080	1154	1207
	功率 kW power	149.8	163.4	190.8	210.2	226.8	242.6	259.2	299.6	326.8	333.2	373.8
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10°C/~°C										
使用侧水流量 m³/h Water flow rate of applied side		92.0	102.0	122.2	132.5	144.2	157.9	170.3	184.0	211.5	222.7	246.5
热源侧水流量 m³/h Water flow rate of heat source side		107.9	119.3	142.6	155.7	169.2	183.8	197.9	215.9	246.3	258.3	287.7
运行控制方式 Operating control way		可编程控制器 PLC programmable controller										
能量控制 Energy control		每台压缩机25% ~ 100% Per Compressor 25%~100%										
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire										
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor										
	数量 Quantity	2	2	2	2	2	2	2	2	2	2	2
	加油量 Oil charge	2×13	2×13	2×13	2×20	2×23	2×19	2×23	2×23	2×28	2×23	2×28
制冷剂 Refrigerant	种类 Type	HCFC134a										
	充注量 kg Charge quantity	168	187	224	243	264	289	312	337	387	408	451
蒸发器 Evaporator	型式 Pattern	满液式壳管换热器 Shell and tube type exchanger										
	水侧压力降 kpa Water side pressure drop	65										
	接管规格 DN Pipe specification DN	125	125	150	150	150	150	150	150	200	200	200
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger										
	水侧压力降 kpa Water side pressure drop	70										
	接管规格 DN Pipe specification DN	125	125	150	150	150	150	150	200	200	200	200
外形尺寸 External dimensions	L mm	4300	4300	4800	4800	4900	4900	5000	5000	5000	5000	5000
	W mm	1600	1700	1700	1720	1720	1800	1900	1900	2000	2000	2000
	H mm	1800	1800	1900	1900	2100	2100	2100	2110	2110	2110	2110
机组重量 Weight	kg	3900	4100	4600	4900	5200	5800	6500	7200	8000	8300	8800
噪声 Noise	dB(A)	76	76	77	77	77	77	77	78	78	78	78

注:

- 能量控制: 标准配置33% ~ 100%为三段式, 25% ~ 100%为四段式, 若需连续控制, 须特殊定货。
- 工作范围: 制冷: 使用侧冷水进水温度10°C ~ 25°C, 出水温度5°C ~ 20°C; 制热: 使用侧热水进水温度40°C ~ 55°C, 出水温度45°C ~ 60°C。

Note:

- Energy control: Noted dispose 33%~100% is three sections, 25%~100% is four sections; If needs the stepless control, must specially order.
- Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 55°C; the temperature leaving from 45°C to 60°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调机-吊顶式冷热风型
Unit type air handling unit-hanging type hot and cold wind type单元式空调机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)满液式水源热泵机组技术参数表1(全热回收型、HCFC134a)

Underground loop type (Embedded pipes) Tech parameter table 1 of flooded water source heat pump (total heat recovery type、 HCFC134a)

机组型号SRBLG Unit model SRBLG		130HAMS	150HAMS	180HAMS	220HAMS	240HAMS	270HAMS	300HAMS	360HAMS	390HAMS	420HAMS	460HAMS	500HAMS	
制冷 Cooling	制冷量 kW Cooling capacity	130	146	177	216	239	268	297	356	386	420	460	496	
	功率 kW power	23.0	25.7	30.8	37.0	40.4	45.5	49.6	58.0	66.1	71.4	73.7	78.7	
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C												
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C												
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	133	148	180	222	242	276	304	363	391	426	467	504
	功率 kW power	29.3	32.9	39.4	50.3	51.7	61.9	67.5	78.9	84.5	91.4	100.3	107.2	
	变工况 Condition out water changes	制热量 kW Heating capacity	117	131	159	198	213	246	270	321	344	375	414	445
	功率 kW power	36.5	40.9	48.9	60.9	64.2	74.9	81.7	95.4	105.1	113.4	121.3	129.6	
热源侧进/出水温度 Temperature of water entering/leaving heat source side		10 °C / ~ °C												
全热回收 Total heat recovery	热量 Quantity of heat	125	140	170	209	228	260	287	342	369	402	441	475	
	热回收水温度 Quantity of heat	45 °C ~ 60 °C												
	水流量 m³/h Water flow	21.5	24.1	29.3	36.0	39.3	44.8	49.4	58.9	63.6	69.2	76.0	81.8	
	接管规格 DN Pipe specification	65	65	80	80	80	80	100	100	100	100	125	125	
使用侧水流量 m³/h Water flow rate of applied side		22.3	25.1	30.4	37.1	41.0	46.0	51.0	61.1	66.3	72.1	79.0	85.2	
热源侧水流量 m³/h Water flow rate of heat source side		26.3	29.6	35.8	43.6	48.1	54.0	59.7	71.3	77.8	84.6	91.9	98.9	
运行控制方式 Operating control way		可编程控制器 programmable controller												
能量控制 Energy control		33%~100%	25% ~ 100%											
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire												
压缩机 Compressor	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor												
	数量 Quantity	1	1	1	1	1	1	1	1	1	1	1	1	
	加油量 Oil charge	7	8	14	13	14	13	13	13	20	23	19	23	
制冷剂 Refrigerant	种类 Type	HCFC134a												
	充注量 KG Charge quantity	41	46	56	68	75	84	93	112	121	132	145	156	
蒸发器 Evaporator	型式 Pattern	满液式壳管换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	65												
	接管规格 DN Pipe specification DN	65	65	80	80	80	80	100	100	100	100	125	125	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger												
	水侧压力降 kpa Water side pressure drop	70												
	接管规格 DN Pipe specification DN	65	65	80	80	80	80	100	100	100	100	125	125	
外形尺寸 External dimensions	L mm	3300	3500	3500	3600	3600	3600	3600	3800	3800	3800	4000	4000	
	W mm	1200	1200	1200	1300	1300	1300	1300	1400	1400	1400	1400	1400	
	H mm	1500	1600	1600	1600	1630	1630	1630	1700	1700	1700	1700	1770	
机组重量 Weight	kg	1700	1800	2000	2200	2300	2450	2550	2700	2900	3100	3300	3400	
噪声 Noise	dB(A)	71	72	72	74	74	74	74	74	74	75	75	75	

注：1、能量控制：标准配置33%~100%为三段式，25%~100%为四段式，若需连续控制，须特殊定货。

2、工作范围：制冷：使用侧冷水进水温度10°C~25°C，出水温度5°C~20°C；制热：使用侧热水进水温度40°C~55°C，出水温度45°C~60°C。

Note: 1. Energy control: Standard dispose 33%~100% is three sections, 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 55°C; the temperature leaving from 45°C to 60°C.



离心式水冷冷水机组

Centrifugal water cooled water chiller



水冷冷水机组

Water-cooling chiller system



地下环路式(地埋管)水源热泵机组

Underground water circuit (embedded pipeline) water source heat pump units



地下水式水源热泵机组

Underground water circulation type water source heat pump units



风冷冷(热)水机组

Air cooled cold/hot water chiller



超低温风冷冷(热)水机组

Ultra-low temperature air cooled cold/hot water chiller



低环境温度空

Low ambient temperature

地下环路式(地埋管)满液式水源热泵机组技术参数表1(全热回收型、HCFC134a)

Underground loop type (Embedded pipes) Tech parameter table 1 of flooded water source heat pump (total heat recovery type、 HCFC134a)

机组型号SRBLG Unit model SRBLG		540HAMS	600HAMS	720HAMS	780HAMS	840HAMS	920HAMS	1000HAMS	1080HAMS	1240HAMS	1300HAMS	1440HAMS
制冷 Cooling	制冷量 kW Cooling capacity	536	594	712	772	840	920	992	1072	1232	1297	1436
	功率 kW power	91.0	99.2	116.0	132.2	142.8	147.4	157.4	182.0	198.4	203.4	235.2
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C										
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C										
制热 Heating	标准工况 Condition out water standards	551	608	725	782	852	935	1007	1102	1217	1304	1377
	功率 kW power	123.8	135.0	157.731	169.099	182.7	200.564	214.4	247.7	270.0	274.5	300.8
	变工况 Condition out water changes	492	540	642	688	750	828	890	984	1080	1154	1207
	功率 kW power	149.8	163.4	190.8	210.2	226.8	242.6	259.2	299.6	326.8	333.2	373.8
全热回收 Total heat recovery	热源侧进/出水温度 Temperature of water entering/leaving heat source side	10 °C / ~ °C										
	热量 Quantity of heat	520	574	684	738	804	882	950	1040	1148	1230	1299
	热回收水温度 Quantity of heat	45 °C ~ 60 °C										
	水流量 m³/h Water flow	89.6	98.9	117.8	127.1	138.5	151.9	163.6	179.1	197.7	211.9	223.8
	接管规格 DN Pipe specification	125	125	150	150	150	150	150	150	200	200	200
	使用侧水流量 m³/h Water flow rate of applied side	92.0	102.0	122.2	132.5	144.2	157.9	170.3	184.0	211.5	222.7	246.5
	热源侧水流量 m³/h Water flow rate of heat source side	107.9	119.3	142.6	155.7	169.2	183.8	197.9	215.9	246.3	258.3	287.7
	运行控制方式 Operating control way	可编程控制器 programmable controller										
压缩机 Compressor	能量控制 Energy control	每台压缩机25% ~ 100% Per Compressor 25%-100%										
	电源/启动方式 Electrical source/The opening way	三相五线/380V/50Hz Y-△ Three-phase five-wire										
	类型 Type	进口半封闭螺杆式压缩机 imported semi-hermetic screw compressor										
制冷剂 Refrigerant	数量 Quantity	2	2	2	2	2	2	2	2	2	2	2
	加油量 kg Oil charge quantity	2×13	2×13	2×13	2×20	2×23	2×19	2×23	2×23	2×28	2×23	2×28
	种类 Type	R134a										
蒸发器 Evaporator	充注量 kg Charge quantity	168	187	224	243	264	289	312	337	387	408	451
	型式 Pattern	满液式壳管换热器 Shell and tube type exchanger										
	水侧压力降 kpa Water side pressure drop	65										
冷凝器 Condenser	接管规格 DN Pipe specification DN	125	125	150	150	150	150	150	150	200	200	200
	型式 Pattern	壳管式换热器 Shell and tube type exchanger										
	水侧压力降 kpa Water side pressure drop	70										
外形尺寸 External dimensions	接管规格 DN Pipe specification DN	125	125	150	150	150	150	150	200	200	200	200
	L mm	4300	4300	4800	4800	4900	4900	5000	5000	5000	5000	5000
	W mm	1600	1700	1700	1720	1720	1800	1900	1900	2000	2000	2000
	H mm	1800	1800	1900	1900	2100	2100	2100	2110	2110	2110	2110
	机组重量 Weight	kg	3900	4100	4600	4900	5200	5800	6500	7200	8000	8300
	噪声 Noise	dB(A)	76	76	77	77	77	77	77	78	78	78

注：1、能量控制：标准配置33%~100%为三段式，25%~100%为四段式，若需连续控制，须特殊定货。

2、工作范围：制冷：使用侧冷水进水温度10°C~25°C，出水温度5°C~20°C；制热：使用侧热水进水温度40°C~55°C，出水温度45°C~60°C。

Note: 1. Energy control: Noted dispose 33%~100% is three sections, 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 55°C; the temperature leaving from 45°C to 60°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
Rooftop air conditioning unit机房专用空调机
Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调机-吊顶式冷热风型
Ceiling handing unit-type hot and cold wind type单元式空调机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

地下环路式(地埋管)降膜式水源热泵机组技术参数表1 (HCFC134a)

Underground loop type (Embedded pipes) Technology performance parameter list 1 of Falling-film type water source heat pump(HCFC134a)

机组型号SRBLG Unit model SRBLG		180HAJ	220HAJ	255HAJ	290HAJ	310HAJ	360HAJ	400HAJ	460HAJ	500HAJ	540HAJ	580HAJ	620HAJ		
制冷量 Cooling	制冷量 kW Cooling capacity	180	220	255	290	310	360	400	460	499	540	580	620		
	功率 kW power	29.1	36.8	41.1	47.6	50.4	57.6	66.1	70.9	79.2	81.2	95.2	100.8		
	使用侧进/出水温度 Temperature of water entering/heating applied side	12 °C / 7 °C													
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C													
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	179	219	254	289	308	358	399	458	497	538	578	618	
	变工况 Condition out water changes	制热量 kW Heating capacity	39.6	50.1	56.7	64.9	68.7	79.6	85.4	98.3	101.9	112.4	137.4	137.4	
	功率 kW power	160	196	227	258	276	320	356	409	444	481	516	552		
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	48.3 61.1 68.4 79.0 83.8 93.8 105.6 119.9 127.4 138.2 158.0 167.6 10°C/~°C													
	使用侧水流量 m³/h Water flow rate of applied side	30.9	37.8	43.8	49.8	53.2	61.8	68.7	79.0	85.7	92.7	99.6	106.4		
热源侧水流量 m³/h Water flow rate of heat source side		36.0	44.2	51.0	58.1	62.0	71.9	80.2	91.4	99.5	106.9	116.2	124.1		
运行控制方式 Operating control way		可编程控制器 programmable controller													
能量控制 Energy control		25%~100%										每台压缩机25%~100% Per Compressor 25%~100%			
电源/启动方式 Electrical source/The opening way		三相五线/380V/50Hz Y-△ Three-phase five-wire													
压缩机 Compressor	类型 Type	半封闭螺杆式压缩机 semi-hermetic screw compressor													
	数量 Quantity	1	1	1	1	1	1	1	1	1	1	2	2		
	加油量 Oil charge	13	13	13	13	13	13	19	19	23	23	2×13	2×13		
制冷剂 Refrigerant	种类 Type	HCFC134a													
	充注量 kg Charge quantity	46	57	66	75	80	93	103	118	128	139	149	159		
蒸发器 Evaporator	型式 Pattern	降膜式壳管换热器 Falling film type shell and tube heat exchanger													
	水侧压力降 kpa Water side pressure drop	65													
	接管规格 DN Pipe specification DN	80	80	80	80	100	100	100	125	125	125	125	125		
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger													
	水侧压力降 kpa Water side pressure drop	70													
	接管规格 DN Pipe specification DN	80	80	80	80	100	100	100	125	125	125	125	125		
外形尺寸 External dimensions	L mm	3500	3600	3600	3600	3600	3800	3800	4000	4000	4000	4300	4300		
	W mm	1200	1300	1300	1300	1300	1400	1400	1400	1400	1400	1600	1700		
	H mm	1600	1600	1630	1630	1630	1700	1700	1700	1770	1770	1800	1800		
机组重量 Weight		kg	2000	2200	2300	2450	2550	2700	2900	3300	3400	3600	3900	4100	

注:

1、能量控制: 标准配置25%~100%为四段式, 若需连续控制, 须特殊定货。

2、工作范围: 制冷: 使用侧冷水进水温度10°C~25°C, 出水温度5°C~20°C; 制热: 使用侧热水进水温度40°C~55°C, 出水温度45°C~60°C。

Note:

1. Energy control: Noted dispose 25%~100% is four sections; If needs the stepless control, must specially order.

2. Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 55°C; the temperature leaving from 45°C to 60°C.



离心式水冷冷水机组

Centrifugal water cooled water chiller

水冷冷水机组

Water-cooling chiller system

地下环路式(地埋管)水源热泵机组

Underground water circuit (embedded pipeline) water source heat pump units

地下水式水源热泵机组

Underground water circulating type water source heat pump units

风冷冷(热)水机组

Air cooled cold/hot water chiller

超低温风冷冷(热)水机组

Ultra-low temperature air cooled cold/hot water chiller

低环境温度空

Low ambient temperature

地下环路式(地埋管)降膜式水源热泵机组技术参数表1 (HCFC134a)

Underground loop type (Embedded pipes) Technology performance parameter list 1 of
Falling-film type water source heat pump(HCFC134a)

机组型号SRBLG Unit model SRBLG		720HAJ	800HAJ	920HAJ	1000HAJ	1080HAJ	1140HAJ	1240HAJ	1300HAJ	1360HAJ	1460HAJ	1520HAJ	
制冷量 Cooling	制冷量 kW Cooling capacity	720	800	920	998	1080	1140	1240	1297	1360	1460	1518	
	功率 kW power	115.2	132.2	141.8	158.4	162.4	174.4	188.5	194.5	198.4	213.6	221.4	
	使用侧进/出水温度 Temperature of water entering/leaving applied side	12 °C / 7 °C											
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	25 °C / 30 °C											
制热 Heating	标准工况 Condition out water standards	制热量 kW Heating capacity	718	797	917	994	1076	1136	1236	1292	1586	1702	1770
	变工况 Condition out water changes	制热量 kW Heating capacity	641	712	819	888	961	1015	1104	1154	1442	1548	1609
	功率 kW power	159.2	170.7	196.5	203.8	224.7	241.8	260.2	268.2	273.6	293.9	306.5	
	热源侧进/出水温度 Temperature of water entering/leaving heat source side	10°C/~°C											
使用侧水流量 m ³ /h Water flow rate of applied side		123.6	137.3	157.9	171.3	185.4	195.7	212.9	222.7	233.5	250.6	260.6	
热源侧水流量 m ³ /h Water flow rate of heat source side		143.8	160.5	182.8	199.1	213.9	226.3	245.9	256.8	268.0	287.9	299.2	
运行控制方式 Operating control way		可编程控制器 programmable controller											
能量控制 Energy control		每台压缩机25% ~ 100% Per Compressor 25%~100%											
电源/启动方式 Electrical source/The opening way		三相五线/380V/50HZ Y-△ Three-phase five-wire											
压缩机 Compressor	类型 Type	半封闭螺杆式压缩机 semi-hermetic screw compressor											
	数量 Quantity	2	2	2	2	2	2	2	2	2	2	2	
	加油量 Oil charge	2×13	2×19	2×19	2×23	2×23	2×23	2×23	2×28	2×28	2×28	2×28	
制冷剂 Refrigerant	种类 Type	HCFC134a											
	充注量 kg Charge quantity	185	206	237	257	278	293	319	334	350	375	390	
蒸发器 Evaporator	型式 Pattern	降膜式壳管换热器 Falling film type shell and tube heat exchanger											
	水侧压力降 kpa Water side pressure drop	65											
	接管规格 DN Pipe specification DN	150	150	150	150	150	200	200	200	200	200	200	
冷凝器 Condenser	型式 Pattern	壳管式换热器 Shell and tube type exchanger											
	水侧压力降 kpa Water side pressure drop	70											
	接管规格 DN Pipe specification DN	150	150	150	150	150	200	200	200	200	200	200	
外形尺寸 External dimensions	L mm	4800	4800	4900	5000	5000	5000	5000	5000	5200	5400		
	W mm	1700	1720	1800	1900	1900	1900	2000	2000	2000	2000		
	H mm	1900	1900	2100	2100	2110	2110	2110	2110	2110	2110		
机组重量 Weight		kg	4600	4900	5800	6500	7200	7500	8000	8300	8600	9000	9400

注:

- 1、能量控制: 标准配置25% ~ 100%为四段式, 若需连续控制, 须特殊定货。
- 2、工作范围: 制冷: 使用侧冷水进水温度10°C ~ 25°C, 出水温度5°C ~ 20°C; 制热: 使用侧热水进水温度40°C ~ 55°C, 出水温度45°C ~ 60°C。

Note:

- 1、Energy control: Noted dispose 25%~100% is four sections; If needs the stepless control, must specially order.
- 2、Operating range: Cooling: The temperature of cold water entering the applied side is from 10°C to 25°C; the temperature leaving from 5°C to 20°C. Heating: The temperature of hot water entering the applied side is from 40°C to 55°C; the temperature leaving from 45°C to 60°C.

水源热泵(冷水)机组
Water source heat pump (cold water) unit屋顶式空气调节机组
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Special air-conditioner for computer room多联式空调(热泵)机组
Multi-connected air conditioner (heat pump) unit单元式空调调节机-恒温恒湿型
Unit type air conditioner constant temperature and humidity type单元式空调调节机-吊顶式冷热风型
Unit type air handling unit-suspension type cold and hot wind type单元式空调调节机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

机组吊运及安装

Lift and installment of the unit

中央空调机组一定要请专业人员安装，不可自行安装。安装时，应确保满足以下条件：

(一) 机房要求：

1、为了便于设备操作和设备检修，机组的主操作面，应留有1-1.5米的空间，换热器的两端留有足够的维修空间，其余间隔距离至少能让设备管理人员正常通行。

2、机组运行时，因压缩机排气端、排气管、冷凝器外壳的温度均高于环境温度而向四周散发热量，使机房温度升高，恶化电动机及操作人员的工作环境，故机房应保持良好通风（如有条件可安装通风设备），以保证机房温度不超过35℃。

3、为了不使机组运行噪声外传，影响周围环境，机房应有良好隔音效果；如有条件，可在机房内采取相应的隔音措施。

(二) 机组搬运：

机组在吊运过程中，须小心操作注意安全，以免伤及人身或设备。在起吊绳索与机组接触的地方，要放置垫块；对重量较重的机组，在机器顶部之上的吊索之间要加支撑杆，以避免吊索对机组的压力。搬运时，宜采用叉车或吊车；吊装中，吊索与机组应连接牢固，机组平稳无倾斜，同时确保吊索不与机组热交换器、压缩机、电控箱、制冷器件和管道接触，以免伤及设备。吊装方法如下图所示：

The central air conditioning unit must be installed by the specialist, mustn't install by oneself. When installed must satisfy the following condition:

I Engine room request:

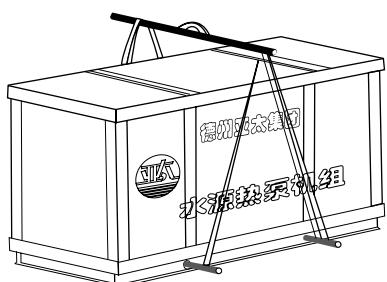
1.In front of the unit operation surface, should have an 1-1.5 meter space in order to be advantageous for the operation and the overhaul. At the either end of the heat interchanger, should have a space or window for pulling out heat pipe. The other both side gaps are big enough for operator walking.

2.The engine room should maintain a good ventilation (installing a draft equipment is better) to guarantee its temperature does not surpass 35°C, because when working the exhaust end and exhaust pipe of the compressor, and the condenser casing may send out heat to the ambient, lets the engine room T. be up, and worsens the electric motor and operator's working condition.

3.The engine room should have a good sound-insulated effect, so that no noise spreads into the environment. If possible, the corresponding sound-insulated measure should be taken.

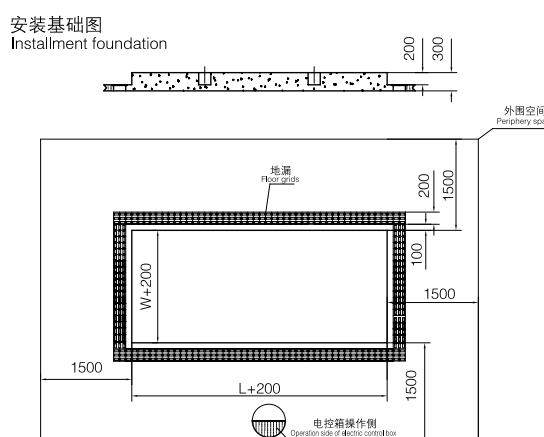
II Chiller transport

During the lifts and the transport, must operate carefully to keep the person or equipment from accident. At the contact place of the rope and the unit, you should lay a cushion. If the chiller is very heavy, you must put a sustainer between the ropes to reduce the pressure from the ropes. When transporting, suitably uses forklift or crane. In the hoisting, the suspension cable and the unit should connect reliably, the unit must be steady and no inclination. At the same time, makes sure that the ropes mustn't touch with the heat interchanger, the compressor, the electric control box, the refrigeration component and the pipeline, in case the unit is ruined. The hoisting method is shown as following chart:



(三) 设备安装基础

机组运转平稳，有轻微振动，一般情况不需作防震基础。为了便于安装和维护，安装基础应高出地面15~20厘米，基础平面必须保证水平平整，同时在安装基础四周设置浅水槽，以便于机组冬季停止运行时排放机组冷凝器、蒸发器中存水。基础平面图见下图：



III Equipment installation foundation

The chiller runs smoothly, sometimes has a slight vibration, so the quakeproof basis is usually unnecessary. The foundation should be as tall as 15~20cm than the ground in order to install and maintain. The basic plane level must be smooth. At the same time there should be a ripple tank around the foundation, to discharge the water stored in the condenser and the evaporator when the chiller does not work in winter. The foundation plan is as follows.

(四) 机组的安装

每台亚太牌机组在出厂前都经过了严格的检验和测试，确保机组的性能指标和产品质量。用户在搬动和安装过程中必须十分小心，尤其不得损坏机组的控制系统和管路。

1、在拆开外包装之前，尽可能将机组运至靠近安装位置的地方，保持机组向上。

2、吊装中，吊索强度必须三倍于机组重量，吊装时人绝不允许站在机组底下。机组的重量请查机组铭牌。

3、机组就位于基础之后，必须作水平校正，水平度偏差应为0.02%以内。

4、与机组连接的水管道，进出口方位必须按照规定，管道通径不可过小。管道上应安装水流开关，并与压缩机连锁控制，确保机组安全可靠运行。

5、为了便于观察机组及整个空调系统的运行情况和变化，热源侧、使用侧进出口处均应装设温度、压力指示仪表。

6、向机组提供的动力电源，容量要足够，电源电压波动不能超过±10%，机组应按要求妥善接地。

IV Unit installation

Each Yatai unit has passed through the strict examination and test before leaving the plant to guarantee the performance data and the quality. The user have to be extremely careful when the unit is moved or installed, especially mustn't damage the control system and the pipeline.



离心式水冷冷水机组

Centrifugal water cooled water chiller



水冷冷水机组

Water-cooling chiller system



地下环路式(地埋管)水源热泵机组

Underground water circuit (embedded pipeline) water source heat pump units



地下水式水源热泵机组

Underground water circulating type water source heat pump units



风冷冷(热)水机组

Air cooled cold/hot water chiller



超低温风冷冷(热)水机组

Ultra-low temperature air cooled cold/hot water chiller



低环境温度空

Low ambient temperature

1. Before opening the outside wrapping, move the unit nearly to installment position as far as possible and make sure the unit is up.
2. In the hoisting, the rope strength must be three times the weight of the unit. When lifting, man mustn't stand under the unit. The unit weight may be looked up its data plate.
3. After located on the foundation, must make a horizontal adjustment, the level deviation should be less 0.02%.
4. The inlet and the outlet position of the cooling and chilled water pipe which connects with the unit must defer to the stipulation. The pipe diameter is not too small. A fluent switch should be installed on the pipeline and linked with unit to guarantee the unit works safely and reliably.
5. The temperature and the pressure gauges must be installed at the inlet and the outlet of the cooling and chilled water in order to observe the unit and the entire air-conditioning system working.
6. The power and the capacity must be enough. The voltage flutter should not be over ±10%, the unit should earth properly according to the request.

(五) 水系统及水管的配接

- 1、水管必须保温，以防止冷(热)量损失和凝结水形成。
- 2、为保证水质，机组的水系统须安装水处理设备，以免结垢。
- 3、接管的接口尺寸应符合《机组性能参数表》要求。
- 4、机组水系统应按要求安装合适的膨胀水箱，膨胀水箱具备自动补水及冷冻水系统的膨胀收缩作用。
- 5、水系统应按要求安装自动排气阀。自动排气阀必须设在冷冻水系统最高点。在水系统管道连接完毕，必须进行管路清洗、检漏试压并经检验合格
后，打开排气阀，排尽系统内空气后关闭。
- 6、循环水初次运行，先关闭进、出口阀门，开启旁通阀门，待水泵运行一段时间后，检查水系统清洁情况，如水质脏，需清洁水管路，直至清洁为止，如管道内有杂物需清洁水过滤器，全部清洁完毕，方可打开进出口阀门，关闭旁通阀门，开始投入使用。
- 7、多台机组并联时须设分水器、集水器及水力平衡阀。
- 8、排水阀必须安装在水系统的最低点处。
- 9、水管的设计请参考《空气调节设计手册》，工程施工、验收参见GB50243《通风与空调工程施工及验收规范》。

VI Water system and pipe connection

- 1、The chilled water pipe must be warm-keeping in order to prevent the energy loss and the condensing water forming.
- 2、A filter must be fitted in the inlet pipeline to keep the water quality is good.
- 3、The pipe connection size should conform to the request of "Unit Performance Parameter list".
- 4、The appropriate expansion water tank should be fixed in the unit chilled water system according to the request, it is located at the highest point of this system to maintain the system's automatic gas-exhausted function. The expansion tank has the function of automatic water-made-up and inflation and contraction of the chilled water system.
- 5、The automatic steam-exhausted valve and the fluent switch should be installed in the water system. The valve must be fixed at the highest point of the chilled water system. After the water pipeline connecting, must have a leakage and pressure test. If qualified after this examination, turn on the steam-exhausted valve, drain away the air in the chilled water system, then is closed. If the water and the pipe are not clean, after 30 minutes of the pump running, clean the filter.
- 6、When the circulating water move at the first time, close the inlet and outlet valve and open the by-pass valve first. After the pump working a few moments, open the outlet valve just, and close the by-pass valve, the put into the normal use.
- 7、Must fix the distributor, the collector and the hydrodynamic balance valve when multi-units are paralleled.
- 8、The water-drained valve must be installed at the lowest point of the water system.
- 9、When designing the water pipe, please refer to "Air conditioning Design Handbook". When constructing and approving the project, please refer to GB50243 "To ventilate with Air conditioning Project Construction And Approval Standard".

(六) 电源连接

- 1、按照要求进行配线和接线，配线和接线严格按《机组电器原理图》执行。

2、机组应有良好的接地。接地线切不可接到煤气管、水管、电话线上，接地不良会导致触电事故。

3、动力电源接线必须确保相序正确(L1、L2、L3对应端子排上R、S、T)。相序不对时，系统不能启动，控制器缺电无任何显示，此时应认真检查电源相序。

VII Power source connection

1. Match and connect the wire according to the request, strictly refer to "Equipment Electric Appliance Schematic Diagram".
2. Must have a good earth. The earth wire mustn't touch the gas pipe, water pipe and telephone line. Bad earth may have a electric shock accident.
3. The power-supply wiring must guarantee the phases are correct (L1, L2, L3 correspond with the terminal's R, S, T). If the phases are wrong the unit cannot work, the controller electric lacking has no indication, you should inspect the phases earnestly this time.

(七) 维修和保养

1、维修

机组的维修和维护只能由受过专业训练且有经验的专职人员来进行。设备检修工作完成后重新开机前应仔细检查机组各功能器件、保护装置和控制元件是否正常。确认系统正常后，严格按照《使用说明书》规定的开机规程重新开机。

2、保养

为保持机组优异的性能、可靠性和使用寿命，请严格按照《使用说明书》规定要求进行正确、定期的设备维护。

冬季气温低于或接近0℃的地区，如冬季机组停止运行，必须将系统中(含机组蒸发器、冷凝器)存水排除干净，以免气温在0℃以下时发生结冰现象，致使水系统管路和机组发生冻裂现象，造成无谓的设备损失。

VIII Service and maintenance

1. Service

The service and the maintenance only can be done by the trained and experienced specialist. After overhauling, you should carefully inspect all the parts, protection devices and controllers before re-starting the unit.

After confirming, re-start the unit according to the regulations stipulated in the "Instruction of Equipment Operation".

2. Maintenance

Please do the regular and right maintenance strictly according to the "Instruction of Equipment Operation" in order to maintain the unit outstanding performance, the reliability and the service life.

At the areas where the winter temperature is lower than or approaches 0 °C, if the chiller does not work in winter, the water stored in chilled and cooling water system must be drain away completely in case the ice-made or crack would be taken place and the senseless losses happened.



水源热泵(冷水)机组

屋顶式空气调节机组

机房专用空调机

多联式空调(热泵)机组

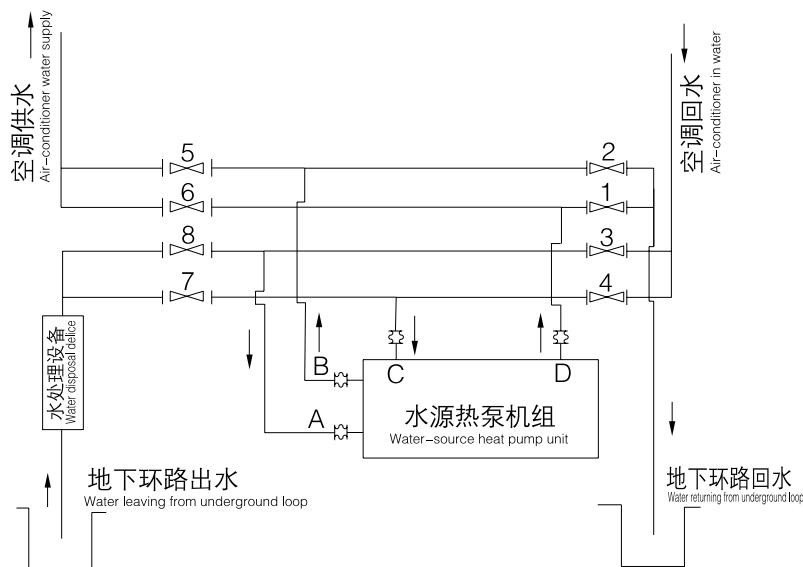
单元式空气调节机-恒温恒湿型

单元式空气调节机-吊顶式冷热风型

单元式空气调节机-冷热风型

水源热泵机组水系统原理图

Skeleton drawing of the water circuit of the water-source heat pump unit



运行操作说明:

夏季运行: 2、4、6、8阀门全开, 1、3、5、7阀门关闭,
冬季运行: 1、3、5、7阀门全开, 2、4、6、8阀门关闭。

Running-operate introduction:

Summer running: 2、4、6、8 all of valves turn on, 1、3、5、7 valves turn off.
Winer running: 1、3、5、7 all of valves turn on, 2、4、6、8 valves turn off.

选型指导

Shaping instruction

一、舒适空调的室内设计参数

| The design data of the comfortable air conditioning room

人体活动 Human body moving	房间用途 Room usage	夏季 Summer				冬季 Winter				运行控制条件 (冬夏) Operating control condition (winter summer)			
		Clo	等效温度(℃) Equivalent effective temperature (℃)	温度(℃) Temperature (℃)	湿度% Humidity %	Clo	等效温度(℃) Equivalent effective temperature (℃)	温度(℃) Temperature (℃)	湿度% Humidity %	Clo	等效温度(℃) Equivalent effective temperature (℃)	温度(℃) Temperature (℃)	湿度% Humidity %
静坐轻度活动 Sit quietly or move light	会场、宴会厅、礼堂、剧院 Conference site, Banquet hall, Assembly hall, Theater	0.6~0.9	25	24~25	50~70	0.8~1	22	22~24	30~50	1.0~1.6	22~25	22~25	30~70
坐轻度活动 Sit or move light	办公室、银行、旅馆、餐厅、学校、住宅 Office, Bank, Hotel, Dining room, School, Housing	0.2~0.4	28	27~28	50~70	1.0~1.2	18	18~20	30~50	1.2~0.2	18~26	18~28	30~70
中等活动 Move mildly	百货公司、商店、快餐、打字 Department store, Store, Fast-food, Typing	0.2~0.4	16.5	25~26	50~70	1.0~1.2	16.5	16.5~185	30~50	1.2~0.2	16.5~26	16.5~26	30~70
观览场所 Visiting place	体育馆、展览馆 Stadium, Exhibition hall	0.2~0.4	15	27~28	50~70	1.1~1.3	15	15~18	30~50	1.3~0.2	15~28	15~28	30~70

离心式水冷冷水机组
Centrifugal water cooled water chiller水冷冷水机组
Water-cooling chiller system地下环路式(地埋管)水源热泵机组
Underground water circuit (embedded pipeline) water source heat pump units地下水式水源热泵机组
Underground water circulation type water source heat pump units风冷冷(热)水机组
Air cooled cold/hot water chiller超低温风冷冷(热)水机组
Ultra-low temperature air cooled cold/hot water chiller低环境温度空
Low ambient temperature

二、建筑物冷负荷概算指标

II The budgetary data of the building cold load

建筑物 Building		冷负荷W/m ² Cooling load		逗留者m ² /人 Stayer m ² /People	照明W/m ² Light W/m ²	送风量l/sm ² Air flow l/m ²
		显冷负荷 Sensible cooling load	总冷负荷 Total cooling load			
办公室 Office	中部区 Middle area	65	95	10	60	5
	周边 Peripheral	110	160	10	60	6
	个人办公室 Individual office	160	240	15	60	8
	会议室 Conference room	185	270	3	60	9
学校 School	教室 Classroom	130	190	2.5	40	9
	图书馆 Library	130	190	6	30	9
	自助餐厅 Buffet	150	260	1.5	30	10
公寓 Apartment	高层, 南向 High floor, Southing	110	160	10	20	10
	高层, 北向 High floor, Northing	80	130	10	20	9
戏院、大会堂 Theater、Meeting hall、		110	260	1	20	12
实验室 Laboratory		150	230	10	50	10
图书馆、博物馆 Library、Museum		95	150	10	40	8
医院 Hospital	手术室 Operating room	110	380	6	20	8
	公共场所 Public place	50	150	10	30	8
卫生所、诊所 Health station、Clinic		130	200	10	40	10
理发室、美容院 Barber's、Beauty shop		110	200	4	50	10
百货商店 Department store	地下 Underground	150	250	1.5	40	12
	中间层 Middle floor	130	225	2	60	10
	上层 High floor	110	200	3	40	8
药店 Pharmacy		110	210	3	30	10
零售店 Retail shop		110	160	2.5	40	10
精品店 Novelty shop		110	160	5	30	10
酒吧 Bar		130	260	2	15	10
餐厅 Dining room		110	320	2	17	12
饭店 Hotel	房间 Room	80	130	10	15	7
	公共场所 Public place	110	160	10	15	8
工厂 Factory	装配室 Assembly room	150	260	3.5	45	9
	轻工业 Light industry	160	260	15	30	10

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Unit type air conditioner constant temperature and humidity type单元式空气调节机-吊顶式冷热风型
Ceiling-mounted air handling unit cold and hot wind type单元式空气调节机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

三、水管流速选择

III The choice of water speed in pipe

1、GB50013《室外给水设计规范》推荐流速

1.The recommend speed according to GB50013 " Design Standard of Water Supply Outdoor "

管道种类 Pipeline type	管道公称直径 (mm) Pipeline nominal diameter(mm)		
	< 250	250-1000	> 1000
水泵吸水管 Pump suck pipe	1.0-1.2	1.2-1.6	1.5-2.0
水泵出水管 Pump outlet pipe	1.5-2.0	2.0-2.5	2.0-3.0

2、设计手册推荐的流速 (m/s)

2.Recommendation water speed according to design hand book(m/s)

管道种类 Pipeline type	推荐流速 (m/s) Recommendation speed	管道种类 Pipeline type	推荐流速 (m/s) Recommendation speed
水泵吸水管 Pump suck pipe	1.2-2.1	集管 gathering pipe	1.2-4.5
水泵出水管 Pump outlet pipe	2.4-3.6	排水管 Discharge pipe	1.2-2.0
一般供水干管 Ordinary water supply main pipe	1.5-3.0	接自城市供水管 Connect with running water	0.9-2.0
室内供水立管 Water supply erect pipe	0.9-3.0		

3、不同直径管道和管件的比价

随着直径的增大，管道本身和阀门等配件的价格以及安装费用都大幅度上升。因此，对大直径管道，流速宜选择接近上限的数值。

3.Price ratio of different pipe diameter and type

Along with the diameter increasing, the price of pipe itself and fittings such as valve and the installment cost may rise largely. So to the large diameter, the speed should be chosen the nearly upper one.

四、膨胀水箱的设计与选用

1、水箱容积计算

$$\star V = \alpha * \Delta t_{max} * V_c$$

式中V—膨胀水箱的有效容积（即相当于检查管到溢流管之间高度的容积），L； α —水的单位体积膨胀系数， $\alpha=0.00006$ ； Δt_{max} —系统内水温的最大波动值绝对值，考虑在膨胀水箱内应经常储存足够水容量，以补偿系统内水冷时体积的收缩量，一般以20℃水温起计算； V_c —系统内的水容量，L；

15-5℃冷系统， $\Delta t_{max}=|15^\circ\text{C}-20^\circ\text{C}|=15^\circ\text{C}$ 时； $V=0.009V_c$ 45-40℃暖系统， $\Delta t_{max}=|45^\circ\text{C}-20^\circ\text{C}|=25^\circ\text{C}$ 时； $V=0.015V_c$ 60-50℃暖系统， $\Delta t_{max}=|60^\circ\text{C}-20^\circ\text{C}|=40^\circ\text{C}$ 时； $V=0.024V_c$ 95-70℃暖系统， $\Delta t_{max}=|95^\circ\text{C}-20^\circ\text{C}|=75^\circ\text{C}$ 时； $V=0.045V_c$ 110-70℃暖系统， $\Delta t_{max}=|110^\circ\text{C}-20^\circ\text{C}|=90^\circ\text{C}$ 时； $V=0.054V_c$ 130-70℃暖系统， $\Delta t_{max}=|130^\circ\text{C}-20^\circ\text{C}|=110^\circ\text{C}$ 时； $V=0.066V_c$ 当中V的计算值小于 V_c 的2%时，按 V_c 的2%选型；双管制冷热水系统必须按制冷、供暖两种工况进行校核，按最大值造型。

IV The choice of water speed in pipe

1. Water tank volume computation

In the formula of $V=\alpha * \Delta t_{max} * V_c$,V—the expansion tank valid volume (that is the volume from the inspect pipe to overflow pipe), L; α —water expansion coefficient per volume, $\alpha=0.00006$; Δt_{max} —water T. biggest undulating absolute value in the system, Considering there is enough water in the expansion tank always to compensate the contraction when cold, calculate by water T. 20℃ generally; V_c —system water capacity, L;15-5℃ cold system, when $\Delta t_{max}=|15^\circ\text{C}-20^\circ\text{C}|=15^\circ\text{C}$; $V=0.009V_c$ 45-40℃ warm system, when $\Delta t_{max}=|45^\circ\text{C}-20^\circ\text{C}|=25^\circ\text{C}$; $V=0.015V_c$ 60-50℃ warm system, when $\Delta t_{max}=|60^\circ\text{C}-20^\circ\text{C}|=40^\circ\text{C}$; $V=0.024V_c$ 95-70℃ warm system, when $\Delta t_{max}=|95^\circ\text{C}-20^\circ\text{C}|=75^\circ\text{C}$; $V=0.045V_c$ 110-70℃ warm system, when $\Delta t_{max}=|110^\circ\text{C}-20^\circ\text{C}|=90^\circ\text{C}$; $V=0.054V_c$ 130-70℃ warm system, when $\Delta t_{max}=|130^\circ\text{C}-20^\circ\text{C}|=110^\circ\text{C}$; $V=0.066V_c$ When the V value is smaller than 2% V_c , shape according to $V_c=2\%$; The double barrel refrigeration hot water system must be checked according to refrigeration, heating two kind of working condition, model according to the maximum value.

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Underground water circulating type water source heat pump units风冷冷(热)水机组
Air cooled cold/hot water chiller超低温风冷冷(热)水机组
Ultra-low temperature air cooled cold/hot water chiller低环境温度空
Low ambient temperature

2、膨胀水箱选用

(1) 开式高位膨胀水箱：适用于中小型低温水供暖系统，膨胀水箱规格见下表，构造见国标图。

2.Selection of the expansion tank

(1) Is suitable in the middle or small type low T. water heating system, the specification of the expansion water tank is as follow list, the structure is as National Standard Picture.

型号 Model	方形 Square					圆形 round				
	公称容积 (m³) Nominal volume(m³)	有效容积 (m³) Effective volume(m³)	外形尺寸 (mm) External dimensions(mm)			公称容积 (m³) Nominal volume(m³)	有效容积 (m³) Effective volume(m³)	筒体 (mm) Barrel shell(mm)		
			长 Length	宽 Width	高 Height			内径 Inside diamete	高度 Height	
1	0.5	0.61	900	900	900	0.3	0.35	900	700	
2	0.5	0.63	1200	700	900	0.3	0.35	800	800	
3	1.0	1.15	1100	1100	1100	0.5	0.54	900	1000	
4	1.0	1.20	1400	900	1100	0.5	0.59	1000	900	
5	2.0	2.27	1800	1200	1200	0.8	0.83	1000	1200	
6	2.0	2.06	1400	1400	1200	0.8	0.81	1100	1000	
7	3.0	3.05	2000	1400	1400	1.0	1.1	1100	1300	
8	3.0	3.20	1600	1600	1400	1.0	1.2	1200	1200	
9	4.0	4.32	2000	1600	1500	2.0	2.1	1400	1500	
10	4.0	4.37	1800	1800	1500	2.0	2.0	1500	1300	
11	5.0	5.18	2400	1600	1500	3.0	3.3	1600	1800	
12	5.0	5.35	2200	1800	1500	3.0	3.4	1800	1500	
13						4.0	4.2	1800	1800	
14						4.0	4.6	2000	1600	
15						5.0	5.2	1800	2200	
16						5.0	5.2	2000	1800	

(2) 膨胀水箱设计安装要点

- ★膨胀水箱应考虑防止水箱内水的热损失和冬季防冻，应采取保温措施；
- ★膨胀管-在机械循环系统中接至系统定压点，一般接至水泵吸入口前；
- ★循环管-接至系统定压点前的水平回水管上，该点与定压点之间应保持1.5-3m的距离；
- ★膨胀管、溢水管和循环管上严禁安装阀门，而排水管和信号管上应设置阀门；
- ★膨胀管、循环管、信号管均应保温
- ★一般开式膨胀水箱内的水温不应超过95℃。

(2).Design and installment gist of expansion water tank.

★Should consider the heat loss and anti-freezing in winter, and take the heat preservation measure.

★The bulged tube - should joint at the constant pressure spot in the machinery circulatory system, and at the inlet of the pump generally.

★The circulation pipe-should joint at the level return water main pipe before the constant pressure spot, the distance between this point and the constant pressure spot should be 1.5-3m.

★Valve mustn't be fixed at the bulged tube, overflow tube and circulation tube, however it should be fixed at the water-drained pipe and the signal pipe.

★The bulged tube, circulation tube and signal pipe should be kept warm.

★The water T. should be not more than 95°C in the expansion tank generally.

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Unit-type air conditioner constant temperature and humidity type单元式空气调节机-吊顶式冷热风型
Ceiling-mounted air handling unit-cooling and heating type单元式空气调节机-冷热风型
Unit Type Air Conditioner-Cooling And Heating Type

五、常用单位换算表

Conversion table of the common unit

类别 Category	(非法定单位) × (换算系数) = 法定单位 (illegal unit) × (conversion factor) = the legal unit		
质量 Mass	lbf	0.4536	kg
	吨(t)	1000	
速度 Velocity	ft/s	0.3048	m/s
	ft/min	0.0051	
密度 Density	lb/in ³	27679.9	kg/m ³
	lb/ft ³	16.0185	
压强 Intensity of pressure	kgf/cm ²	9.8067 × 10 ⁴	Pa
	mm H ₂ O	9.8067	
	mmHg(torr)	133.322	
	bar	1 × 10 ⁵	
	atm	101325	
能、功、热 Energy, Power, Heat	KW · h	3.6 × 10 ⁶	J
	kgf · m	9.8067	
	Hp · h	2.68 × 10 ⁶	
	Btu	1055.06	
功率 Power	Kcal/h	1.163	W
	Btu/h	0.2931	
	kgf · m/s	9.8067	
	Hp	745.7	
导热系数 Heat conducting coefficient	kcal/(m · h · °C)	1.163	W/m · °C
	Btu(ft · h F)	1.7307	
传热系数 Heat transfer coefficient	kcal/(m ² · h · °C)	1.163	W/(m ² · °C)
	Btu/(ft ² · h · °C)	5.678	
比热容、比热焓、比熵 Specific heat by volume、 Specific heat by enthalpy、 Specific entropy	kcal/(kg · °C)	4186.8	J/(kg · °C)
	Btu/(lb · F)	4186.8	
	kgf · m/(kg · °C)	9.8067	
冷量 Cooling capacity	U · S · RT	3516.91	W



离心式水冷冷水机组

Centrifugal water cooled water chiller



水冷冷水机组

Water-cooling chiller system



地下环路式(地埋管)水源热泵机组

Underground water circuit (embedded pipeline) water source heat pump units



地下水式水源热泵机组

Underground water circulating type water source heat pump units



风冷冷(热)水机组

Air cooled cold/hot water chiller



超低温风冷冷(热)水机组

Ultra-low temperature air cooled cold/hot water chiller



低环境温度空

Low ambient temperature

空调设备咨询表

Consultation table of air conditioning equipment

设备名称 Equipment name		设备型号 Equipment model		
设备数量 Equipment quantity		设备交货期 Delivery term		
设备使用地点 Place of use		使用电源 Power source		
详细技术要求 Detailed specification				
序号 Serial number	内容名称 Content name	单位 Unit	参数要求 Parameter request	备注 Note
1	制冷量 Cooling capacity	kW		
2	冷冻水进水温度 Chilled water inlet T.	°C		标准机型为12°C Standard type is 12 °C
3	冷冻水出水温度 Chilled water outlet T.	°C		标准机型为7°C Standard type is 7 °C
4	安装尺寸要求(L×W×H) Installation size(L×W×H)	mm		
5	电控要求 Electric control		<input type="checkbox"/> 普通型 ordinary <input type="checkbox"/> 豪华型 deluxe	
6	集中监控通讯接口 Central monitoring communication connection			
7	任选项要求 Arbitrary option		<input type="checkbox"/> RS485 <input type="checkbox"/> RS232	请在2种中选择 Please choose in 2 kinds
			<input type="checkbox"/> 水流开关 Water flow switch	
			<input type="checkbox"/> 远程控制箱 Remote control box	

注：以上表格请认真填写，以便确认提供设备技术要求是否满足需方要求；如有需要请在□内打“√”，不需要在□内打“×”。

Note: Earnestly fill in the form above in order to confirm the equipment specification whether satisfies the consumer request, if needs please hit "√" in □; if not, hit "×" in □.

订货注意事项

Attention when ordering

- 1、在合同中请按型号说明写清楚产品的详细的技术要求，交货时期；
- 2、要采用特殊品牌压缩机时合同中要注明；
- 3、机组由普通型电脑控制和豪华型电脑控制两种方式，选用哪种电脑控制，需在合同中注明；
- 4、对电脑控制的机型，如果要求进行联网控制，也要在合同中注明；
- 5、如果是订购模块式机组，则应注明机组的组合方式；
- 6、如因产品本身而发生质量问题，自出厂之日起，一年内免费维修；超过一年时，酌情收取一定的维修工本费用；
- 7、产品的调试除特殊情况在合同上注明外，均由本公司授权的技术人员负责，并收取一定的调试费；
- 8、特殊要求的非标准产品请与本公司技术部门联系，并在合同中注明；
- 9、如对设备有特殊要求请填写《空调设备咨询表》并传回公司确认；

1. Please write the detailed specification and the delivery time clearly according to the model in the contract.

2. Must indicate in the contract if using the special brand compressor.

3. The controlling way is divided into ordinary or deluxe computer two kinds, must indicate which kind in the contract.

4. If the computer controlled chiller needs be controlled through the networking, you should indicate in the contract, too.

5. If ordering the module chiller, then should indicate the chiller combination way.

6. If the product quality is bad, there is one year free service since leaving the plant. After one year, charge the certain service cost properly.

7. The debugging must be done by our company's technician and charge a certain debugging fee, except the peculiar request in the contract.

8. As for the special non-standard one, you should contact with technology department of our company and indicate in the contract.

9. If having a special request to the equipment please fill in "Air Conditioning Equipment Consultation Table" and send to our company to confirm.

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seek after the perfection

of every minute details it is melted with

our blood

in the past ten years glory and

dream, faith and mission, will impel us to

do better and more

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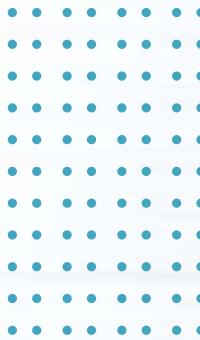
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