

启立:质量是我们所有工作的出发点

广州启立环保设备有限公司

Guangzhou Qili Environmental Equipment Co.,Ltd

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广州启立环保设备有限公司

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COMPANY PROFILE  
公司简介



广州启立环保设备有限公司成立于2015年，是一家专业从事环保设备研究的公司。位于产业密集、交通便利的广州市白云区嘉禾望岗工业区，我们采用全新的标准化厂房，流水线作业生产，24小时在线服务，专业售后团队，保证高品质产品的稳定输出；公司2021年获得高新技术企业认定，通过ISO质量体系认证，获得消毒字号许可证，产品通过欧洲CE，Rohs认证，各项设计专利等。

主营产品：臭氧发生器、高浓度臭氧水机、臭氧消毒柜、臭氧核心配件，制氧机、锦鲤鱼池过滤器、蛋白质分离器、循环水设备等产品。公司业务除国内，还远销东南亚、南非、南美、欧洲各国。承接臭氧设备和水处理、空气治理方案、鱼池净化设计与制造，提供OEM及ODM合作！

启立经过多年稳定快速的发展，已经拥有一批专业的管理、技术研发、生产、营销服务的优质团队，我们会为客户提供专业的选型，以及治理方案。以“高效、诚信、专业、共赢”为理念，以“品质第一、客户至上”为宗旨，“为人类环保事业最大贡献”为美好愿景。

Guangzhou Qili Environmental Equipment Co.,Ltd was established in 2015, and is a company engaged in environmental protection equipment. Located in Jiahe Wanggang Industrial Zone, Baiyun District, Guangzhou. With dense industries and convenient transportation, we adopt a brand new standardized factory building, assembly line production, 24-hour online service, and professional after-sales team to ensure the stable output of high-quality products. In 2021, our company was recognized as a high-tech enterprise, passed ISO quality system certification, obtained a Disinfection Product brand license, and its products passed CE, RoHs certification, and various design patents.

## MAJOR PARTS AND BRANDS OF EQUIPMENT 设备主要零部件及品牌



- 采用国际知名品牌高效涡旋压缩机，超强制冷，省电节能，低噪音，振动小，寿命长，能效比普通的压缩机高5%以上  
0.5HP~2HP采用日本松下压缩机  
3HP~15HP采用日本三洋压缩机  
15HP~50HP采用丹佛斯或美国谷轮压缩机
- 外壳采用高强度钢板经过喷塑，最先进专利技术高精度加工，确保使用在酸碱气体中不生锈。
- 风冷翅片冷凝器采用清水纳米铝箔，增强防腐性能，散热效果好，便于清洗维护，方便安装。
- 蒸发器采用水箱盘管式设计，内置我司高效的内外螺纹管，与普通的换热管相比能提高3倍的换热面积，且能持续供应冷冻水，减少环境热量的吸收，提高制冷能效安全且更加卫生。
- 工业冷水机系列我司标配采用台湾源立铸铁泵，采用两级马达，效率高，耗电量低，抽水力强，噪音低，温升低，维护方便。如有特殊要求，也可选南方不锈钢泵或高压泵。
- 风机我司20HP以下机器采用低噪音外转子风机，含20HP以上机器我司采用大流量轴流风机，寿命长，散热好。
- 微电脑控制，内置全面智能监控与保护，包括电机温度控制，相序监测，人工复位锁定，油温监控，精确控温于±1度温差。精确控温于±1度温差，特殊机型可达到正负0.1度。
- 所有电器采用法国施耐德或ABB品牌，高效，环保，安全，寿命长不易老化。内部集成断水、低温、高压低、防冻、缺相、逆相、延时启动、过载、电机过热、油压差等多项保护及处理功能。
- 制冷剂标准的采用稳定高强度的R22。环保冷媒R407C, R410A, R134A, R404A等也可供选择。



- It adopts international famous brand high efficiency scroll compressor machine, super cooling, energy saving, low noise, low vibration, long life and energy efficiency higher than 5% of ordinary compressors. 0.5HP~2HP adopts Japanese Panasonic compressor  
3HP~15HP adopts Japan Sanyo Compressor  
15HP~50HP adopts Danfoss or American Copeland compressor
- The shell is made of high-strength steel plate and sprayed with plastic. The most advanced patented technology is used for high-precision processing to ensure that it does not rust in acid and alkali gases.
- The air-cooled fin condenser adopts clean water nano aluminum foil to enhance anti-corrosion performance, good heat dissipation effect, easy to clean and maintain, and convenient to install.
- The evaporator adopts the water tank coil design, built-in high-efficiency internal and external threaded pipe, which can increase the heat exchange area by 3 times compared with the ordinary heat exchange tube, and can continuously supply chilled water, reduce the absorption of environmental heat, and improve the refrigeration. Energy efficient and more hygienic.
- Industrial chiller series Our company adopts Taiwan Yuanli cast iron pump as standard. It adopts two-stage motor, high efficiency, low power consumption, strong pumping power, low noise, low temperature rise and convenient maintenance. If you have special requirements, you can also choose a southern stainless steel pump or high pressure pump.
- Fans Our machines below 20HP use low-noise external rotor fans. For machines with more than 20HP, we use large-volume axial flow fans, which have long service life and good heat dissipation.
- Microcomputer control, built-in comprehensive intelligent monitoring and protection, including motor temperature control, phase sequence monitoring, manual reset lock, oil temperature monitoring, precise temperature control at ±1 degree temperature difference. Precise temperature control is ±1 degree temperature difference, and special models can reach plus or minus 0.1 degrees.
- All electrical appliances adopt the French Schneider or ABB brand, which is efficient, environmentally friendly, safe, and has a long life and is not easy to age. Internal integration of water shutoff, low temperature, low pressure, antifreeze, phase loss, reverse phase, delayed start, overload, motor overheating, oil pressure difference and many other protection and processing functions.
- The refrigerant standard adopts stable high-strength R22, environmentally friendly refrigerant R407C, R410A, R134A, R404A, etc. are also available.

TABLE OF CONTENTS  
目录

Qili: Quality is the motivation for all our work!  
启立: 质量是我们所有工作的出发点!



|  |         |
|--|---------|
| <b>涡旋式冷水机</b><br>SCROLL CHILLER  | P01~P02 |
| 环保工业冷水机<br>Environmentally friendly industrial chiller                       | P03~P04 |
| 风冷式工业冷水机 ( 涡旋式 )<br>Air-cooled industrial chiller (vortex type)              | P05~P06 |
| 水冷式工业冷水机 ( 涡旋式 )<br>Water-cooled industrial chiller (vortex type)            | P07~P08 |
| <b>螺杆式工业冷水机</b><br>SCREW TYPE INDUSTRIAL CHILLER                             | P09~P10 |
| 风冷式螺杆冷水机 ( 单机头/双机头 )<br>Air-cooled screw chiller (single head / double head) | P11~P12 |
| 水冷式螺杆冷机 ( 单机头 )<br>Water-cooled screw cooler (single head)                   | P13~P14 |
| 水冷式螺杆冷机 ( 双机头 )<br>Water-cooled screw cooler (double head)                   | P15~P16 |
| 风冷式低温冷水机<br>Air-cooled low temperature chiller                               | P17~P18 |
| 水冷式低温冷水机<br>Water-cooled low temperature chiller                             | P19~P20 |
| 风冷低温螺杆式冷冻机<br>Air cooled low temperature screw freezer                       | P21~P22 |
| 水冷低温螺杆式冷冻机<br>Water cooled low temperature screw freezer                     | P23~P24 |
| 冷热两用一体机<br>Hot and cold dual-use machine                                     | P25~P26 |
| <b>工程案例</b><br>ENGINEERING CASE  | P27     |
| <b>车间展示</b><br>SHOP EXHIBITION   | P28     |

# SCROLL CHILLER

## 涡旋式冷水机



风冷式工业冷水机



水冷式工业冷水机

### 产品简介

工业冷水机应用于塑料加工机械成型模具冷却，能够大大提高塑料制品光洁度，减少塑料制品表面纹痕和内应力，使产品不缩水、不变形，便于塑料制品的脱模，加速产品定型，从而极大地提高塑料成型机的生产效率，改善产品质量，降低生产成本，故对生产过程中的温度控制中的温度控制要求越来越高。被广泛应用于金属加工、机械%工程、医疗、化工、食品和饮料加工、激光、电子、纺织、电镀、半导体测试、水刀切割、真空镀膜、建筑和军事等行业。

### 设计特点

- 世界品牌压缩机和高效冷凝器，蒸发器组合，超强制冷，省电能，低噪音，寿命长。
- 冷却范围：7°C-35°C
- 加大蒸发器和冷凝器，机组可以在45度以下高温环境运行。
- 微电脑控制，精确控温于±1°C温差。
- 低噪音%大风量风机。
- 低压铸铁泵为标配，可选不锈钢或高压泵。
- 多重保护装置，保障系统安全。
- 先进的水箱盘管式蒸发器设计，不但能够供应持续稳定的冷冻水，还可以冷却水箱内部的水，减少环境热量的吸收，提高的制冷能效。
- PW-W水冷式采用壳管式冷凝器，导热快，制冷效果好，适用于高温，水源丰富的地区。
- PW-A风冷式采用翅片式冷凝器，散热效果好，便于清洗维护，方便安装。

### PRODUCT INTRODUCTION

Industrial chillers are used in the cooling of plastic processing machinery forming molds, which can greatly improve the smoothness of plastic products, reduce surface marks and internal stress of plastic products, make the products do not shrink or deform, facilitate the demolding of plastic products, and accelerate product shaping. Greatly improve the production efficiency of plastic molding machines, improve product quality, and reduce production costs. Therefore, the temperature control requirements in the temperature control during the production process are getting higher and higher. It is widely used in metal processing, mechanical engineering, medical, chemical, food and beverage processing, laser, electronics, textile, electroplating, semiconductor testing, waterjet cutting, vacuum coating, construction and military industries.

### DESIGN FEATURES

- World brand compressor, high-efficiency cooler, evaporator combination, super cooling, energy saving, low noise, long life.
- Cooling range: 7°C-35°C
- Enlarge the evaporator and condenser, the unit can operate in a high temperature environment below 45 degrees.
- Microcomputer control, precise temperature control within ±1°C temperature difference.
- Low noise% large air volume fan.
- Low pressure cast iron pump is standard, stainless steel or high pressure pump can be selected.
- Multiple protection devices to ensure system safety.
- The advanced design of the water tank coil evaporator can not only supply continuous and stable chilled water, but also cool the water inside the water tank, reduce the absorption of environmental heat, and improve the cooling energy efficiency.
- PW-W water-cooled type adopts shell and tube type condensation, fast heat conduction, good cooling effect, suitable for high temperature and rich water source areas.
- PW-A air-cooled type adopts finned condenser, which has good heat dissipation effect, easy to clean and maintain, and easy to install.

## ENVIRONMENTALLY FRIENDLY INDUSTRIAL CHILLER 环保工业冷水机



### 机组特点和作用：

- 主要精选世界名牌丹麦“丹佛斯”全封闭涡旋压缩机，更低的噪音和振动水平，高效节能。
- 制冷剂选用国际新型研发不破坏臭氧层的环保制冷剂R407C/R410A,也可根据不同国家和地区选择R404A, R134a等环保冷媒。
- 电器部分均分国际品牌“施耐德”（Schneider）原厂正品，保证机器运行稳定。
- 原装进口全不锈钢名牌水泵，工作范围大，低噪音，性能可靠无泄漏，免维护。
- 优质不锈钢水箱及管路系统，保障水质纯净，清洗维护方便。
- 制冷范围从2KW-2500KW,型号齐全，可完全满足工业生产选配要求。
- 静电喷塑外壳，欧化设计，结构紧凑，美观大方。

### 备注：

- 制冷量是依据：冷冻水进出水温度12°C/7°C，冷却水/风进出温度30°C/35°C
- 工作范围：冷冻水温度范围：5°C~35°C；冷冻水进出水温差：3.5°C~8°C
- HBW系列：冷却水温度范围：18°C~37°C,冷冻水进出水温差：3.5°C~10°C
- HBC系列：在环境温度不高于35°C下使用。
- 保留更改上述参数或尺寸而不另行通知的权利。

### UNIT FEATURES AND FUNCTIONS:

- The main selection of the world famous Danish "Danfoss" fully enclosed scroll compressor, lower noise and vibration levels, energy efficient.
- The refrigerant is selected from internationally developed R407C/R410A, an environmentally friendly refrigerant that does not destroy the ozone layer. R404A, R134a can also be selected according to different countries and regions. And other environmentally friendly refrigerants.
- The electrical parts are divided into the original authenticity of the international brand "Schneider" to ensure the stable operation of the machine.
- Original imported all-stainless steel brand-name water pump, large working range, low noise, reliable performance, no leakage, maintenance-free.
- High-quality stainless steel water tank and piping system ensure pure water quality and easy cleaning and maintenance.
- The refrigeration range is from 2KW to 2500KW, and the model is complete, which can fully meet the requirements of industrial production.
- Electrostatic sprayed plastic case, European design, compact structure and beautiful appearance.

### REMARKS:

- The cooling capacity is based on: chilled water inlet and outlet water temperature 12°C / 7°C, cooling water / wind inlet and outlet temperature 30°C / 35°C
- Working range: chilled water temperature range: 5°C~35°C; chilled water inlet and outlet water temperature difference: 3.5°C~8°C
- HBW series: cooling water temperature range: 18°C~37°C, chilled water inlet and outlet water temperature difference: 3.5°C~10°C
- HBC series: Use at an ambient temperature not higher than 35 °C.
- The right to change the above parameters or dimensions without prior notice is reserved.

### 环保工业冷水机运用领域

冷水机应用于环保行业臭氧发生器工作时会产生大量的热能，同时需要冷却，否则臭氧会因高温而边产生边分解使用冷水机同时降低气源露点，提高气源洁净度。

### ENVIRONMENTAL PROTECTION INDUSTRIAL CHILLER APPLICATION FIELD

When the chiller is used in the environmental protection industry, the ozone generator will generate a lot of heat energy and need to be cooled at the same time. Otherwise, the ozone will be decomposed by the high temperature and the chiller will be used to reduce the dew point of the gas source and improve the cleanliness of the gas source.

### 环保工业冷水机技术参数

### ENVIRONMENTAL PROTECTION INDUSTRIAL CHILLER TECHNICAL PARAMETERS

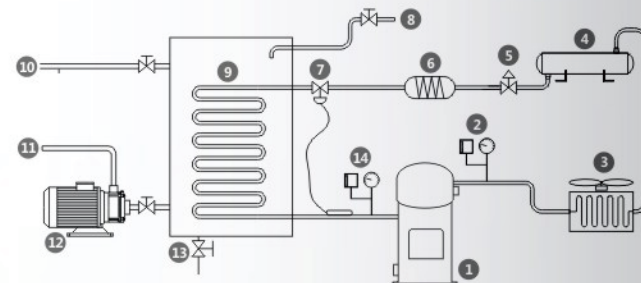
| 设备型号 Model (PW*xx)                |                              | 0.5A   | 1A    | 2A   | 3A   | 4A     | 5A     | 6A   | 8AD    | 10AD   | 12AD   | 15AD   | 20AD  | 25AD  | 30AD   | 40AF   | 50AF   |        |
|-----------------------------------|------------------------------|--|-------|------|------|--------|--------|--|--------|--------|--------|--------|-------|-------|--------|--------|--------|--------|
| 名义制冷量<br>Nominal cooling capacity | kcal/h                       | 1290   | 2159  | 4446 | 6803 | 9030   | 11094  | 13244  | 18060  | 22188  | 26488  | 34400  | 46440 | 52460 | 67940  | 88752  | 109220 |        |
|                                   | kw                           | 1.5  | 2.51  | 5.17 | 7.91 | 10.5   | 12.9   | 15.4   | 21     | 25.8   | 30.8   | 40     | 54    | 61    | 79     | 103.2  | 127    |        |
| 输入电功率<br>Input electric power     | kw                           | 0.895  | 1.46  | 2.24 | 3.41 | 4.1    | 5.58   | 6.31   | 7.99   | 10.59  | 12.8   | 15.3   | 21.8  | 24    | 32.8   | 43.6   | 48     |        |
| 电源电压<br>voltage                   |                              | 1ph*220V/50HZ  |       |      |      |        |        | 3ph/380V~415V/50HZ                                   |        |        |        |        |       |       |        |        |        |        |
| 制冷剂<br>The refrigerant            | 类型<br>Types of               | R22(R134a R407C)   |       |      |      |        |        |  |        |        |        |        |       |       |        |        |        |        |
|                                   | 控制方式<br>The refrigerant      | 毛细管<br>Capillary   |       |      |      |        |        | 外平衡热力膨胀阀<br>External balance thermal expansion valve |        |        |        |        |       |       |        |        |        |        |
| 压缩机<br>Compressor                 | 类型<br>Types of               | 全封闭回转式<br>Fully enclosed rotary  |       |      |      |        |        | 全封闭涡旋式<br>Fully enclosed scroll                      |        |        |        |        |       |       |        |        |        |        |
|                                   | 功率<br>power                  | kw   | 0.45  | 0.95 | 1.73 | 2.68   | 3.37   | 4.47   | 5.2    | 3.37*2 | 4.47*2 | 5.2*2  | 6.3*2 | 9*2   | 10.1*2 | 13.7*2 | 9*4    | 10.1*4 |
| 冷凝器<br>Condenser                  | 类型<br>Types of               | 高效紫铜管套铝翅片式+大风量低噪音外转子风机<br>High-efficiency copper tube sleeve aluminum fin type + high air volume low noise outer rotor fan   |       |      |      |        |        |  |        |        |        |        |       |       |        |        |        |        |
|                                   | 冷却风量<br>Cooling air volume   | m³/h   | 750   | 1000 | 2000 | 3000   | 4000   | 5000   | 6000   | 8000   | 10000  | 12000  | 15000 | 20000 | 25000  | 30000  | 40000  | 50000  |
|                                   | 风机功率<br>Fan power            | kw   | 0.075 | 0.14 | 0.14 | 0.18*2 | 0.18*2 | 0.18*2   | 0.18*2 | 0.25*2 | 0.45*2 | 0.45*2 | 0.6*2 | 0.8*2 | 0.8*2  | 0.8*4  | 0.6*6  | 0.6*6  |
| 蒸发器<br>Evaporator                 | 类型<br>Types of               | 不锈钢水箱盘管式<br>stainless steel coil type  |       |      |      |        |        |  |        |        |        |        |       |       |        |        |        |        |
|                                   | 冷冻水量<br>Chilled water volume | m³/h   | 0.31  | 0.59 | 1.07 | 1.59   | 2.01   | 2.58   | 3.05   | 4.02   | 5.34   | 6.03   | 7.86  | 10.69 | 12.07  | 15.72  | 21.38  | 24.14  |
|                                   | 水箱容量<br>Water tank capacity  | liter  | 16    | 16   | 22   | 50     | 55     | 55   | 75     | 120    | 200    | 200    | 300   | 350   | 350    | 500    | 580    | 620    |
|                                   | 水管接口<br>Water pipe interface | inch   | 1/2"  | 1/2" | 1/2" | 1"     | 1"     | 1"   | 1"     | 1-1/2" | 1-1/2" | 2"     | 2"    | 2"    | 2-1/2" | 2-1/2" | 3"     | 3"     |
| 水泵<br>Water pump                  | 功率<br>power                  | kw   | 0.37  | 0.37 | 0.37 | 0.37   | 0.37   | 0.75   | 0.75   | 0.75   | 0.75   | 1.5    | 1.5   | 2.2   | 2.2    | 4      | 4      |        |
|                                   | 扬程<br>Head                   | m  | 20    | 20   | 20   | 20     | 20     | 20   | 20     | 20     | 20     | 20     | 20    | 20    | 20     | 30     | 30     |        |
| 安全保护<br>safety protection         |                              | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |       |      |      |        |        |  |        |        |        |        |       |       |        |        |        |        |
| 外形尺寸<br>Dimensions                | 长<br>long                    | mm   | 600   | 600  | 650  | 1050   | 1050   | 1050   | 1050   | 1370   | 1550   | 1550   | 1850  | 1950  | 1950   | 2050   | 2350   | 2350   |
|                                   | 宽<br>width                   | mm   | 400   | 400  | 520  | 560    | 560    | 560  | 560    | 700    | 800    | 800    | 950   | 1000  | 1000   | 1500   | 1800   | 1800   |
|                                   | 高<br>high                    | mm   | 855   | 855  | 1000 | 1320   | 1320   | 1320   | 1320   | 1450   | 1650   | 1650   | 1850  | 1950  | 1950   | 1950   | 1950   | 1950   |
| 整机重量<br>Total Weight              | kg                           | 50   | 73    | 100  | 135  | 160    | 175    | 180  | 310    | 450    | 530    | 750    | 835   | 920   | 1150   | 1250   | 1450   |        |

以上数据根据以下设计工况得出：

1. 冷冻水进出温度12°C/7°C，冷凝温度50°C
- 以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:  
1. chilled water inlet and outlet temperature 12°C/7°C, condensation temperature 50 °C  
The above specifications are subject to change without notice.

## AIR-COOLED INDUSTRIAL CHILLER (VORTEX TYPE) 风冷式工业冷水机 (涡旋式)



- 1 压缩机  
compressor
- 2 高压控制器  
High voltage controller
- 3 风冷冷凝器  
Air cooled condenser
- 4 储液罐  
Liquid storage tank
- 5 角阀  
Angle valve
- 6 干燥过滤器  
Dry filter
- 7 膨胀阀  
Expansion valve
- 8 补水阀  
Water supply valve
- 9 蒸发器  
Evaporator
- 10 冷冻回水  
Frozen back
- 11 冷冻供水  
Frozen water supply
- 12 冷冻水泵  
Chilled water pumps
- 13 排水阀  
Drain valve
- 14 低压控制器  
Low voltage controller

### 机组特点和作用：

- 主机精选美日全新进口名牌压缩机，内置安全保护，噪音低，省电耐用。电气部分均分国际品牌“施耐德”原厂产品，保证机器工作稳定，寿命长久。
- 进口意大利原厂水泵，大流量，效率高，恒久耐用。
- 配备进口精密数显温度控制器，能精确控制水温于±1℃，设定温度范围5℃-35℃。
- 全不锈钢厚质水箱式蒸发器，套内自动补水装置，清洗维护方便快捷。
- 冷水机组冷凝器为套管式，套内螺纹铜管，设计合理，换热效果良好；风冷机组散热冷排，由翅片加上行列铜管组成，制造时采用二次翻边翅片机械胀管工艺和先进换热器生产线，保证优质高效。
- 静电喷塑外壳，欧化设计，美观大方，外表板采用快速拆装形式，方便使用和维护。

### 备注：

- 制冷量是依据：冷冻水进出水温度12℃/7℃，冷却水/风进出温度30℃/35℃
- 工作范围：冷冻水温度范围：5℃~35℃；冷冻水进出水温差：3℃~8℃
- 冷却水温度范围：18℃~37℃；冷却水进出水温差：3℃~10℃
- 保留更改上述参数或尺寸而不另行通知的权利。

### UNIT FEATURES AND FUNCTIONS:

- The main selection of the world famous Danish "Danfoss" fully enclosed scroll compressor, lower noise and vibration levels, energy efficient.
- The refrigerant is selected from internationally developed R407C/R410A, an environmentally friendly refrigerant that does not destroy the ozone layer. R404A, R134a can also be selected according to different countries and regions. And other environmentally friendly refrigerants.
- The electrical parts are divided into the original authenticity of the international brand "Schneider" to ensure the stable operation of the machine.
- Original imported all-stainless steel brand-name water pump, large working range, low noise, reliable performance, no leakage, maintenance-free.
- High-quality stainless steel water tank and piping system ensure pure water quality and easy cleaning and maintenance.
- The refrigeration range is from 2KW to 2500KW, and the model is complete, which can fully meet the requirements of industrial production.
- Electrostatic sprayed plastic case, European design, compact structure and beautiful appearance.

### REMARKS:

- Cooling capacity is based on: chilled water inlet and outlet water temperature 12°C / 7°C, cooling water / wind inlet and outlet temperature 30°C / 35°C
- Working range: chilled water temperature range: 5°C~35°C; chilled water inlet and outlet water temperature difference: 3°C~8°C
- Cooling water temperature range: 18°C~37°C; cooling water inlet and outlet water temperature difference: 3°C~10°C
- The right to change the above parameters or dimensions without prior notice is reserved.

### 风冷式工业冷水机组运用领域

冷水机应用于塑料加工机械成型模具冷却，能够大大提高塑料制品表面光洁度，减少塑料制品表面纹痕和内应力，使产品不缩水、不变形，便于塑料制品的脱模，加速产品定型，从而极大地提高塑料成型机的生产效率；

冷水机应用于电镀行业，阳极氧化，冷却镀铜，镀锡，镀镍等等，电镀专用冷水机蒸发器采用特制耐腐材料，把槽温控制在最佳温度，可实现光亮剂的零消耗，并且极大保证机器使用寿命。

现代技术突飞猛进发展到尽头，为了提高生产效率，改善产品质量，降低生产成本，故对生产过程中的温度控制要求越来越高，被广泛应用于金属佳宏，机械工程，医疗，化工，食品和饮料加工、激光、电子、纺织、半导体测试，水刀切割、真空镀膜、建筑和军事等行业。

### AIR-COOLED INDUSTRIAL CHILLER APPLICATION FIELD

The chiller is applied to the cooling of plastic processing machinery forming molds, which can greatly improve the surface finish of plastic products, reduce the surface marks and internal stress of plastic products, so that the products do not shrink or deform, facilitate the demoulding of plastic products, accelerate the product stereotype, and thus improve the production efficiency of plastic molding machines;

The chiller is used in the electroplating industry, anodizing, cooling copper plating, tin plating, nickel plating, etc. The special chiller evaporator for electroplating uses special anti-corrosion materials to control the bath temperature at the optimum temperature to achieve zero brightener. Consumed and greatly guaranteed machine life.

Modern technology has developed by leaps and bounds. In order to improve production efficiency, improve product quality and reduce production costs, the temperature control requirements in the production process are getting higher and higher, and it is widely used in metal Jiahong, mechanical engineering, medical, chemical, food and Beverage processing, laser, electronics, textile, semiconductor testing, waterjet cutting, vacuum coating, construction and military industries.

### 风冷式工业冷水机 (涡旋式) 技术参数

### AIR-COOLED INDUSTRIAL CHILLER (VORTEX TYPE) TECHNICAL PARAMETERS

| 设备型号 Model (PW*xx)                | 1A                           | 2A   | 3A     | 4A                 | 5A     | 6A     | 8AD  | 10AD   | 12AD   | 15AD   | 20AD   | 25AD  | 30AD  | 40AF   | 50AF   | 60AF   |        |       |
|-----------------------------------|------------------------------|--|--------|--------------------|--------|--------|--|--------|--------|--------|--------|-------|-------|--------|--------|--------|--------|-------|
| 名义制冷量<br>Nominal cooling capacity | kcal/h                       | 2158.6   | 4446.2 | 6802.6             | 9030   | 11094  | 13244  | 18060  | 22188  | 26488  | 34400  | 46440 | 52460 | 67940  | 88752  | 109220 | 150500 |       |
|                                   | kw                           | 2.51   | 5.17   | 7.91               | 10.5   | 12.9   | 15.4   | 21     | 25.8   | 30.8   | 40     | 54    | 61    | 79     | 103.2  | 127    | 175    |       |
| 输入电功率<br>Input electric power     | kw                           | 1.46   | 2.24   | 3.41               | 4.1    | 5.58   | 6.31   | 7.99   | 10.59  | 12.8   | 15.3   | 21.8  | 24    | 32.8   | 43.6   | 48     | 74.5   |       |
| 电源电压<br>voltage                   |                              | 1ph*220V/50HZ  |        | 3ph/380V~415V/50HZ |        |        |  |        |        |        |        |       |       |        |        |        |        |       |
| 制冷剂<br>The refrigerant            | 类型<br>Types of               | R22(R134a R407C)   |        |                    |        |        |  |        |        |        |        |       |       |        |        |        |        |       |
|                                   | 控制方式<br>The refrigerant      | 毛细管<br>Capillary   |        |                    |        |        | 外平衡热力膨胀阀<br>External balance thermal expansion valve |        |        |        |        |       |       |        |        |        |        |       |
| 压缩机<br>compressor                 | 类型<br>Types of               | 全封闭回转式<br>Fully enclosed rotary  |        |                    |        |        | 全封闭涡旋式<br>Fully enclosed scroll                      |        |        |        |        |       |       |        |        |        |        |       |
|                                   | 功率<br>power                  | kw   | 0.95   | 1.73               | 2.68   | 3.37   | 4.47   | 5.2    | 3.37*2 | 4.47*2 | 5.2*2  | 6.3*2 | 9*2   | 10.1*2 | 13.7*2 | 9*4    | 10.1*4 | 13*5  |
| 冷凝器<br>Condenser                  | 类型<br>Types of               | 高效紫铜管套铝翅片式+大风量低噪音外转子风机<br>High-efficiency copper tube sleeve aluminum fin type + high air volume low noise outer rotor fan   |        |                    |        |        |  |        |        |        |        |       |       |        |        |        |        |       |
|                                   | 冷却风量<br>Cooling air volume   | m³/h   | 1000   | 2000               | 3000   | 4000   | 5000   | 6000   | 8000   | 10000  | 12000  | 15000 | 20000 | 25000  | 30000  | 40000  | 50000  | 60000 |
|                                   | 风机功率<br>Fan power            | kw   | 0.14   | 0.14               | 0.18*2 | 0.18*2 | 0.18*2   | 0.18*2 | 0.25*2 | 0.45*2 | 0.45*2 | 0.6*2 | 0.8*2 | 0.8*2  | 0.8*4  | 0.6*6  | 0.6*6  | 0.8*6 |
| 蒸发器<br>Evaporator                 | 类型<br>Types of               | 不锈钢水箱盘管式<br>stainless steel coil type  |        |                    |        |        |  |        |        |        |        |       |       |        |        |        |        |       |
|                                   | 冷冻水量<br>Chilled water volume | m³/h   | 0.59   | 1.07               | 1.59   | 2.01   | 2.58   | 3.05   | 4.02   | 5.34   | 6.03   | 7.86  | 10.69 | 12.07  | 15.72  | 21.38  | 24.14  | 31.86 |
|                                   | 水箱容量<br>Water tank capacity  | liter  | 16     | 22                 | 50     | 55     | 75   | 120    | 200    | 200    | 300    | 350   | 350   | 460    | 580    | 620    | 750    |       |
|                                   | 水管接口<br>Water pipe interface | inch   | 1/2"   | 1/2"               | 1"     | 1"     | 1"   | 1"     | 1-1/2" | 1-1/2" | 2"     | 2"    | 2"    | 2-1/2" | 2-1/2" | 2-1/2" | 3"     | 3"    |
| 水泵<br>Water pump                  | 功率<br>power                  | kw   | 0.37   | 0.37               | 0.37   | 0.37   | 0.75   | 0.75   | 0.75   | 0.75   | 1.5    | 1.5   | 2.2   | 2.2    | 4      | 4      | 4      |       |
|                                   | 扬程<br>Head                   | m  | 20     | 20                 | 20     | 20     | 20   | 20     | 20     | 20     | 20     | 20    | 20    | 30     | 30     | 23     |        |       |
| 安全保护<br>safety protection         |                              | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |        |                    |        |        |  |        |        |        |        |       |       |        |        |        |        |       |
| 外形尺寸<br>Dimensions                | 长<br>long                    | mm   | 600    | 650                | 1050   | 1050   | 1050   | 1050   | 1370   | 1550   | 1550   | 1850  | 1950  | 1950   | 2050   | 2350   | 2350   | 2800  |
|                                   | 宽<br>width                   | mm   | 400    | 520                | 560    | 560    | 560  | 560    | 700    | 800    | 800    | 950   | 1000  | 1000   | 1500   | 1800   | 1800   | 1800  |
|                                   | 高<br>high                    | mm   | 855    | 1000               | 1320   | 1320   | 1320   | 1320   | 1450   | 1650   | 1650   | 1850  | 1950  | 1950   | 1950   | 1950   | 1950   | 1900  |
| 整机重量<br>Total Weight              | kg                           | 73   | 100    | 135                | 160    | 175    | 180  | 310    | 450    | 530    | 750    | 835   | 920   | 1150   | 1250   | 1450   | 2200   |       |

以上数据根据以下设计工况得出：

1.冷冻水进出温度12℃/7℃，冷凝温度50℃

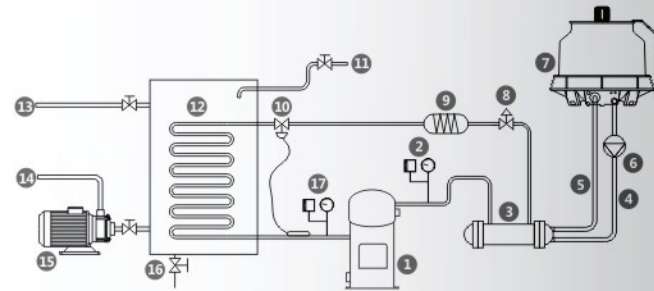
以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:

1. chilled water inlet and outlet temperature 12°C/7°C, condensation temperature 50 °C

The above specifications are subject to change without notice.

## WATER-COOLED INDUSTRIAL CHILLER (VORTEX TYPE) 水冷式工业冷水机 (涡旋式)



- |                                    |                              |                                    |
|------------------------------------|------------------------------|------------------------------------|
| 1 压缩机<br>compressor                | 7 冷却塔<br>Cooling Tower       | 13 冷冻回出<br>Frozen back             |
| 2 高压控制器<br>High voltage controller | 8 手阀<br>Hand valve           | 14 冷冻供水<br>Frozen water supply     |
| 3 水冷冷凝器<br>Water cooled condenser  | 9 干燥过滤器<br>Dry filter        | 15 冷冻水泵<br>Chilled water pumps     |
| 4 冷却进水<br>Cooling water            | 10 膨胀阀<br>Expansion valve    | 16 排水阀<br>Drain valve              |
| 5 冷却出水<br>Cooling water            | 11 补水阀<br>Water supply valve | 17 低压控制器<br>Low voltage controller |
| 6 冷却水泵<br>Cooling water pump       | 12 蒸发器<br>Evaporator         |                                    |

### 机组特点和作用：

- 主机精选美日全新进口名牌压缩机，内置安全保护，噪音低，省电耐用。电气部分均分国际品牌“施耐德”原厂产品，保证机器工作稳定，寿命长久。
- 进口意大利原厂水泵，大流量，效率高，恒久耐用。
- 配备进口精密数显温度控制器，能精确控制水温于±1℃，设定温度范围5℃-35℃。
- 全不锈钢厚质水箱式蒸发器，套内自动补水装置，清洗维护方便快捷。
- 冷水机组冷凝器为套管式，套内螺纹铜管，设计合理，换热效果良好；风冷机组散热冷排，由翅片加上行列铜管组成，制造时采用二次翻边翅片机械胀管工艺和先进换热器生产线，保证优质高效。
- 静电喷塑外壳，欧化设计，美观大方，外表板采用快速拆装形式，方便使用和维护。

### 备注：

- 制冷量是依据：冷冻水进出水温度12℃/7℃，冷却水/风进出温度30℃/35℃
- 工作范围：冷冻水温度范围：5℃~35℃；冷冻水进出水温差:3℃~8℃
- 在环境温度不高于35℃使用。
- 保留更改上述参数或尺寸而不另行通知的权利。

### UNIT FEATURES AND FUNCTIONS:

- The main selection of the world famous Danish "Danfoss" fully enclosed scroll compressor, lower noise and vibration levels, energy efficient.
- The refrigerant is selected from internationally developed R407C/R410A, an environmentally friendly refrigerant that does not destroy the ozone layer. R404A, R134a can also be selected according to different countries and regions. And other environmentally friendly refrigerants.
- The electrical parts are divided into the original authenticity of the international brand "Schneider" to ensure the stable operation of the machine.
- Original imported all-stainless steel brand-name water pump, large working range, low noise, reliable performance, no leakage, maintenance-free.
- High-quality stainless steel water tank and piping system ensure pure water quality and easy cleaning and maintenance.
- The refrigeration range is from 2KW to 2500KW, and the model is complete, which can fully meet the requirements of industrial production.
- Electrostatic sprayed plastic case, European design, compact structure and beautiful appearance.

### REMARKS:

- Cooling capacity is based on: chilled water inlet and outlet water temperature 12°C / 7°C, cooling water / wind inlet and outlet temperature 30°C / 35°C
- Working range: chilled water temperature range: 5°C~35°C; chilled water inlet and outlet water temperature difference: 3°C~8°C
- Use at an ambient temperature not higher than 35 °C.
- The right to change the above parameters or dimensions without prior notice is reserved.

### 水冷式工业冷水机组运用领域

冷水机应用于塑料加工机械成型模具冷却，能够大大提高塑料制品表面光洁度，减少塑料制品表面纹痕和内应力，使产品不缩水、不变形，便于塑料制品的脱模，加速产品定型，从而极大地提高塑料成型机的生产效率；

冷水机应用于电镀行业，阳极氧化，冷却镀酸铜，镀锡，镀镍等等，电镀专用冷水机蒸发器采用特制耐腐蚀材料，把槽温控制在最佳温度，可实现光亮剂的零消耗，并且极大保证机器使用寿命。

现代技术突飞猛进发展到尽头，为了提高生产效率，改善产品质量，降低生产成本，故对生产过程中的温度控制要求越来越高，被广泛应用于金属佳宏，机械工程，医疗，化工，食品和饮料加工、激光、电子、纺织、半导体测试，水刀切割、真空镀膜、建筑和军事等行业。

### WATER-COOLED INDUSTRIAL CHILLER APPLICATION FIELD

The chiller is applied to the cooling of plastic processing machinery forming molds, which can greatly improve the surface finish of plastic products, reduce the surface marks and internal stress of plastic products, so that the products do not shrink or deform, facilitate the demoulding of plastic products, accelerate the product stereotype, and thus The earth improves the production efficiency of plastic molding machines;

The chiller is used in the electroplating industry, anodizing, cooling copper plating, tin plating, nickel plating, etc. The special chiller evaporator for electroplating uses special anti-corrosion materials to control the bath temperature at the optimum temperature to achieve zero brightener. Consumed and greatly guaranteed machine life.

Modern technology has developed by leaps and bounds. In order to improve production efficiency, improve product quality and reduce production costs, the temperature control requirements in the production process are getting higher and higher, and it is widely used in metal Jiahong, mechanical engineering, medical, chemical, food and Beverage processing, laser, electronics, textile, semiconductor testing, waterjet cutting, vacuum coating, construction and military industries.

### 水冷式工业冷水机 (涡旋式) 技术参数

### WATER-COOLED INDUSTRIAL CHILLER (VORTEX TYPE) TECHNICAL PARAMETERS

| 设备型号 Model (PW*xx)                |  | 3W                                    | 5W   | 6W     | 8WD    | 10WD   | 12WD   | 15WD  | 20WD  | 25WD  | 30WD   | 40WF   | 50WF   | 60WF   |         |
|-----------------------------------|--|---------------------------------------|--|--------|--------|--------|--------|-------|-------|-------|--------|--------|--------|--------|---------|
| 名义制冷量<br>Nominal cooling capacity | kcal/h   | 4628.2                                | 13330  | 16512  | 22704  | 27520  | 33024  | 43172 | 60716 | 70950 | 89612  | 121432 | 141814 | 153080 |         |
|                                   | kw   | 8.87                                  | 15.5   | 19.2   | 26.4   | 32     | 38.4   | 50.2  | 70.6  | 82.5  | 104.2  | 141.2  | 164.9  | 178    |         |
| 输入电功率<br>Input electric power     | kw   | 3.05                                  | 5.22   | 5.95   | 7.49   | 9.69   | 11.9   | 14.1  | 20.2  | 22.4  | 31.4   | 40     | 44.4   | 57.7   |         |
| 电源电压<br>voltage                   | 3ph/380V~415V/50HZ   |                                       |  |        |        |        |        |       |       |       |        |        |        |        |         |
| 制冷剂<br>The refrigerant            | 类型<br>Types of   | R22(R134a R407C)                      |  |        |        |        |        |       |       |       |        |        |        |        |         |
|                                   | 控制方式<br>The refrigerant  | 毛细管<br>Capillary                      | 外平衡热力膨胀阀<br>External balance thermal expansion valve |        |        |        |        |       |       |       |        |        |        |        |         |
| 压缩机<br>compressor                 | 类型<br>Types of   | 全封闭涡旋式<br>Fully enclosed scroll       |  |        |        |        |        |       |       |       |        |        |        |        |         |
|                                   | 功率<br>power  | kw                                    | 2.68   | 4.47   | 5.2    | 3.37*2 | 4.47*2 | 5.2*2 | 6.3*2 | 9*2   | 10.1*2 | 13.7*2 | 9*4    | 10.1*4 | 13.05*4 |
| 冷凝器<br>Condenser                  | 类型<br>Types of   | 壳管式<br>Shell and tube                 |  |        |        |        |        |       |       |       |        |        |        |        |         |
|                                   | 冷却水量<br>Cooling water volume   | m <sup>3</sup> /h                     | 2.2  | 3.5    | 4.1    | 5.4    | 7.2    | 8.2   | 10.7  | 14.5  | 16.4   | 21.3   | 29     | 32.7   | 40.9    |
|                                   | 水管接口<br>Water pipe interface   | inch                                  | 1"   | 1-1/2" | 1-1/2" | 1-1/2" | 1-1/2" | 2"    | 2"    | 2"    | 2-1/2" | 2-1/2" | 3"     | 4      |         |
| 蒸发器<br>Evaporator                 | 类型<br>Types of   | 不锈钢水箱盘管式<br>stainless steel coil type |  |        |        |        |        |       |       |       |        |        |        |        |         |
|                                   | 冷冻水量<br>Chilled water volume   | m <sup>3</sup> /h                     | 1.8  | 2.9    | 3.4    | 4.5    | 6      | 6.8   | 8.9   | 12.1  | 13.6   | 17.8   | 24.1   | 27.3   | 31.6    |
|                                   | 水箱容量<br>Water tank capacity  | liter                                 | 60   | 60     | 70     | 150    | 180    | 180   | 350   | 350   | 350    | 445    | 600    | 670    | 720     |
|                                   | 水管接口<br>Water pipe interface   | inch                                  | 1"   | 1"     | 1"     | 1-1/2" | 2"     | 2"    | 2"    | 2"    | 2-1/2" | 2-1/2" | 3"     | 3"     |         |
| 水泵<br>Water pump                  | 功率<br>power  | kw                                    | 0.37   | 0.75   | 0.75   | 0.75   | 0.75   | 1.5   | 1.5   | 2.2   | 2.2    | 4      | 4      | 4      | 5.5     |
|                                   | 扬程<br>Head   | m                                     | 20   | 20     | 20     | 20     | 20     | 20    | 20    | 20    | 22     | 22     | 22     | 22     | 22      |
| 安全保护<br>safety protection         | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |                                       |  |        |        |        |        |       |       |       |        |        |        |        |         |
| 外形尺寸<br>Dimensions                | 长<br>long  | mm                                    | 290  | 890    | 890    | 1250   | 1250   | 1250  | 1650  | 1650  | 1650   | 1880   | 2200   | 2200   | 2650    |
|                                   | 宽<br>width   | mm                                    | 500  | 500    | 500    | 680    | 680    | 680   | 850   | 850   | 850    | 910    | 1000   | 1000   | 1100    |
|                                   | 高<br>high  | mm                                    | 840  | 1050   | 1050   | 1380   | 1380   | 1380  | 1670  | 1670  | 1670   | 1820   | 1880   | 1880   | 2000    |
| 整机重量<br>Total Weight              | kg   | 130                                   | 150  | 165    | 300    | 430    | 500    | 735   | 820   | 900   | 1150   | 1250   | 1400   | 1500   |         |

以上数据根据以下设计工况得出：

1.冷冻水进出温度12℃/7℃，冷凝温度40℃

以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:

1. chilled water inlet and outlet temperature 12°C/7°C, condensation temperature 40 °C

The above specifications are subject to change without notice.



# SCREW TYPE INDUSTRIAL CHILLER

## 螺杆式工业冷水机



风冷式螺杆冷水机



水冷式螺杆冷水机

### 螺杆式冷冻机的运用

- 工业中央供水冷却
- 中央空调系统
- 冷库, 恒温室
- 环保工业集中供水冷却

### 机组设计特点

#### 世界名牌压缩机

- 采用德国比泽尔/台湾汉钟半封闭螺杆压缩机。

最新双螺杆5:6齿数比及先进的线型设计, 节能高效。

- 高效活阀能量控制, 实现分级或无级能控, 运转安静平稳。
- 最先进专利技术高精度加工。
- 内置全面智能监控与保护, 包括电机温度监控, 相序监测, 人工复位锁定, 油温监控。
- 多种制冷剂供选择, 包括R22、R134a和R407c。

#### 微处理控制系统

- 工业级PLC机组集中控制, 配合压缩机的能调系统, 可准确控制机组制冷量与冷负荷的匹配, 保证机组以最佳效率运行, 降低运行成本。
- 内部集成断水、低温、高低压、防冻、缺相、延时启动、逆相、过载、电机过热、油压差等多项安全保护及处理功能。

#### 安装简便, 运行可靠

- 压给它机分段降压启动, 最大程度减少对电网冲击。
- 运转平衡安全, 振动小。
- 机组结构紧凑, 占地面积小, 重量轻, 容易搬运, 安装简单。
- 出厂前完成各种性能测试, 完成接线, 减少安装时间和费用。

### APPLICATION

- Industrial central water supply cooling
- Central air conditioning system
- Cold storage, constant temperature room
- Centralized water supply and cooling in environmental protection industry

### DESIGN FEATURES

#### World famous brand compressor

- Using German Bitzer/Taiwan Hanbell semi-hermetic screw compressor. The latest twin screw 5:6 gear ratio and advanced linear design, energy saving and high efficiency.
- High-efficiency valve energy control, realizing hierarchical or stepless energy control, quiet and stable operation.
- The most advanced patented technology for high-precision processing.
- Built-in comprehensive intelligent monitoring and protection, including motor temperature monitoring, phase sequence monitoring, manual reset and lock, Oil temperature monitoring.
- A variety of refrigerants to choose from, including R22, R134a and

#### R407c. Microprocessing control system

- Industrial-grade PLC unit centralized control, coordinated with the compressor's adjustable system. It can accurately control the matching between the cooling capacity of the unit and the cooling load, to ensure that the unit operates with high efficiency and reduce operation cost.
- Internal integration of water cut, low temperature, high and low pressure, antifreeze, lack of phase, delayed start, reverse phase, overload, motor overheating, oil pressure. Multiple security protection and processing functions.

#### Easy installation and reliable operation

- Press the other machine to step-down and start to reduce the impact on the power grid to the greatest extent. The operation is balanced and safe, and the vibration is small. The unit has compact structure, small floor space, light weight, easy handling and simple installation.
- Complete various performance tests and wiring before leaving the factory, reducing installation time and costs.

## AIR-COOLED SCREW CHILLER (SINGLE HEAD / DOUBLE HEAD) 风冷式螺杆冷水机 (单机头/双机头)



### 机组特点和作用：

- 压缩机采用国际品牌，新型高效螺旋转子压缩机，比一般压缩机效能高出20%-30%，并获得欧美多国专利和ISO9001国际品质保证。
- 采用高效率矽钢片及特殊槽型设计，并配备内外全向式设计冷却流道，使压缩机马达在任何负载下均可发挥最高效率。
- 油分离器采用双层过滤方式，滤油效果佳，热交换器可发挥最大能力。
- 高效率、低噪音、低震动。

### 备注：

- 制冷量是依据：冷冻水进出水温度12°C/7°C，冷却水/风进出温度30°C/35°C
- 工作范围：冷冻水温度范围：5°C~30°C；冷冻水进出水温差：3°C~8°C
- 在环境温度不高于35°C使用。
- 保留更改上述参数或尺寸而不另行通知的权利。

### UNIT FEATURES AND FUNCTIONS:

- The compressor adopts international brand, new high-efficiency spiral rotor compressor, which is 20%-30% higher than the general compressor performance, and has obtained multi-national patents and ISO9001 international quality assurance.
- It is designed with high-efficiency silicon steel sheet and special groove type, and is equipped with internal and external omnidirectional design cooling channels to maximize the efficiency of the compressor motor under any load.
- The oil separator adopts double-layer filtration method, which has good oil filtering effect and the heat exchanger can exert the maximum capacity.
- High efficiency, low noise and low vibration.

### REMARKS:

- Cooling capacity is based on: chilled water inlet and outlet water temperature 12°C / 7°C, cooling water / wind inlet and outlet temperature 30°C / 35°C
- Working range: chilled water temperature range: 5°C~30°C; chilled water inlet and outlet water temperature difference: 3°C~8°C
- Use at an ambient temperature not higher than 35 °C.
- The right to change the above parameters or dimensions without prior notice is reserved.

风冷式螺杆冷水机采用国际品牌压缩机，配套优质高效铜管制作冷凝器、蒸发器及控制组件。机组具备体积小、噪音低、高效率、使用寿命长、操作简单等优点，其优美的外形设计和可靠稳定的性能在同产品总出类拔萃。

- 原装进口德国比泽尔，台湾汉钟双螺杆系列压缩机。双螺杆5：6齿数比及先进的线型设计，节能高效
- 高效活阀能量控制，实现分级或无级能控。平衡设计，运转超静平稳。
- 运动部件严格处理，特殊排气处油平衡块设计，无故障运行40000小时以上。

Air-cooled screw chillers adopt international brand compressors. Condensers, evaporators and thermal components of water-cooled screw chillers are equipped with high-quality and high-efficiency copper tubes. The unit features small size, low noise, high energy efficiency, long service life and simple operation. Its rational structure design and reliable and stable performance are outstanding.

- Originally imported Germany Bitzer, Taiwan Hanzhong twin-screw series compressor. Twin-screw 5:6 gear ratio and advanced linear design, energy efficient.
- High-efficiency solenoid valve energy control for four step or stepless control. Balanced design, running quietly and smoothly.
- Strict handling of moving parts, specially designed oil balance block at discharge, trouble-free operation longer than 40000 hours.

### 风冷式螺杆冷水机 (单机头/双机头) 技术参数

### AIR-COOLED SCREW CHILLER (SINGLE HEAD / DOUBLE HEAD) TECHNICAL PARAMETERS

| 设备型号 Model (PWS**)                |                              | 40A  | 50A    | 60A    | 75A    | 85A    | 100A   | 120A   | 80AD   | 100AD  | 120AD  | 150AD  | 170AD  | 200AD  | 240AD  |         |
|-----------------------------------|------------------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| 名义制冷量<br>Nominal cooling capacity | kcal/h                       | 107156   | 141126 | 151188 | 202272 | 238994 | 281134 | 329208 | 214312 | 282252 | 302376 | 404544 | 477988 | 562268 | 658416 |         |
|                                   | kw                           | 124.6  | 164.1  | 175.8  | 235.2  | 277.9  | 326.9  | 382.8  | 249.2  | 328.2  | 351.6  | 470.4  | 555.8  | 653.8  | 765.6  |         |
| 电源电压<br>voltage                   |                              | 3ph/380V~415V/50HZ   |        |        |        |        |        |        |        |        |        |        |        |        |        |         |
| 制冷剂<br>The refrigerant            | 类型<br>Types of               | R22(R407C)   |        |        |        |        |        |        |        |        |        |        |        |        |        |         |
|                                   | 控制方式<br>The refrigerant      | 外平衡热力膨胀阀<br>External balance thermal expansion valve   |        |        |        |        |        |        |        |        |        |        |        |        |        |         |
| 压缩机<br>compressor                 | 类型<br>Types of               | 半封闭螺杆式<br>Semi-closed screw  |        |        |        |        |        |        |        |        |        |        |        |        |        |         |
|                                   | 功率<br>power                  | kw   | 37.4   | 47     | 51.7   | 67.7   | 76.8   | 89     | 106.5  | 37.4*2 | 47*2   | 51.7*2 | 67.7*2 | 76.8*2 | 89*2   | 106.5*2 |
| 冷凝器<br>Condenser                  | 类型<br>Types of               | 高效紫铜管套铝翅片式+大风量低噪音外转子风机<br>High-efficiency copper tube sleeve aluminum fin type + high air volume low noise outer rotor fan   |        |        |        |        |        |        |        |        |        |        |        |        |        |         |
|                                   | 冷却风量<br>Cooling air volume   | m³/h   | 40000  | 51000  | 63000  | 80000  | 91000  | 105000 | 122000 | 91000  | 105000 | 122000 | 155000 | 175000 | 205000 | 250000  |
|                                   | 风机功率<br>Fan power            | kw   | 6.4    | 9      | 9      | 13.5   | 13.5   | 18     | 18     | 13.5   | 18     | 18     | 27     | 27     | 36     | 36      |
|                                   | 类型<br>Types of               | 干式壳管式<br>dry shell tube type   |        |        |        |        |        |        |        |        |        |        |        |        |        |         |
| 蒸发器<br>Evaporator                 | 冷冻水量<br>Chilled water volume | m³/h   | 21.4   | 28.2   | 30.2   | 40.4   | 47.8   | 56.2   | 65.5   | 76.5   | 81.9   | 89.6   | 99.6   | 109.8  | 112.4  | 131.7   |
|                                   | 水管接口<br>Water pipe interface | inch   | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 5"     | 4"     | 4"     | 5"     | 5"     | 6"     | 6"     | 6"      |
| 安全保护<br>safety protection         |                              | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |        |        |        |        |        |        |        |        |        |        |        |        |        |         |
| 外形尺寸<br>Dimensions                | 长<br>long                    | mm   | 2350   | 2350   | 2650   | 2800   | 3680   | 3680   | 4600   | 3680   | 3680   | 4800   | 5500   | 6800   | 7800   | 8500    |
|                                   | 宽<br>width                   | mm   | 1800   | 1800   | 1800   | 1800   | 1800   | 1800   | 1800   | 1800   | 1800   | 2050   | 2050   | 2050   | 2050   | 2200    |
|                                   | 高<br>high                    | mm   | 1800   | 1800   | 1900   | 2200   | 2200   | 2200   | 2200   | 2200   | 2200   | 2200   | 2200   | 2200   | 2250   | 2350    |
| 整机重量<br>Total Weight              | kg                           | 1450   | 1870   | 2200   | 2550   | 2800   | 3050   | 3460   | 2800   | 3050   | 3460   | 4100   | 4350   | 4750   | 5200   |         |

以上数据根据以下设计工况得出：  
1. 冷冻水进出温度12°C/7°C，冷凝温度50°C  
以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:  
1. chilled water inlet and outlet temperature 12°C/7°C, condensation temperature 50 °C  
The above specifications are subject to change without notice.

## WATER-COOLED SCREW COOLER (SINGLE HEAD) 水冷式螺杆冷机 (单机头)



### 机组特点和作用：

- 压缩机采用国际品牌，新型高效螺旋转子压缩机，比一般压缩机效能高出20%-30%，并获得欧美多国专利和ISO9001国际品质保证。
- 采用高效率矽钢片及特殊槽型设计，并配备内外全向式设计冷却流道，使压缩机马达在任何负载下均可发挥最高效率。
- 油分离器采用双层过滤方式，滤油效果佳，热交换器可发挥最大能力。
- 高效率、低噪音、低震动。

### 备注：

- 制冷量是依据：冷冻水进出水温度12°C/7°C，冷却水/风进出温度30°C/35°C
  - 工作范围：冷冻水温度范围：5°C~30°C；冷冻水进出水温差：3°C~8°C
- 冷却水温度范围：18°C~30°C；冷却水进出水温差：3.5°C~10°C
- 上述规格尺寸如有变更，恕不另行通知。

### UNIT FEATURES AND FUNCTIONS:

- The compressor adopts international brand, new high-efficiency spiral rotor compressor, which is 20%-30% higher than the general compressor performance, and has obtained multi-national patents and ISO9001 international quality assurance.
- It is designed with high-efficiency silicon steel sheet and special groove type, and is equipped with internal and external omnidirectional design cooling channels to maximize the efficiency of the compressor motor under any load.
- The oil separator adopts double-layer filtration method, which has good oil filtering effect and the heat exchanger can exert the maximum capacity.
- High efficiency, low noise and low vibration.

### REMARKS:

- Cooling capacity is based on: chilled water inlet and outlet water temperature 12°C / 7°C, cooling water / wind inlet and outlet temperature 30°C / 35°C
- Working range: chilled water temperature range: 5°C ~ 30°C; chilled water inlet and outlet water temperature difference: 3°C~8°C
- Cooling water temperature range: 18°C~30°C; cooling water inlet and outlet water temperature difference: 3.5°C~10°C
- The above specifications are subject to change without notice.

水冷式螺杆冷水机采用国际品牌压缩机，配套优质高效铜管制作冷凝器、蒸发器及控制组件。机组具备体积小、噪音低、高效率、使用寿命长、操作简单等优点，其优美的外形设计和可靠稳定的性能在同产品总出类拔萃。

- 原装进口德国比泽尔，台湾汉钟双螺杆系列压缩机。双螺杆5：6齿数比及先进的线型设计，节能高效。
- 高效活阀能量控制，实现分级或无级能控。平衡设计，运转超静平稳。
- 运动部件严格处理，特殊排气处油平衡块设计，无故障运行40000小时以上。

Water-cooled screw chillers adopt international brand compressors. Condensers, evaporators and thermal components of water-cooled screw chillers are equipped with high-quality and high-efficiency copper tubes. The unit features small size, low noise, high energy efficiency, long service life and simple operation. Its rational structure design and reliable and stable performance are outstanding.

- Originally imported Germany Bitzer, Taiwan Hanzhong twin-screw series compressor. Twin-screw 5:6 gear ratio and advanced linear design, energy efficient.
- High-efficiency solenoid valve energy control for four step or stepless control. Balanced design, running quietly and smoothly.
- Strict handling of moving parts, specially designed oil balance block at discharge, trouble-free operation longer than 40000 hours.

### 水冷式螺杆冷水机 (单机头) 技术参数

### WATER-COOLED SCREW CHILLER (SINGLE HEAD) TECHNICAL PARAMETERS

| 设备型号 Model (PWS**)                |                              | 40W  | 50W    | 60W    | 75W    | 85W    | 100W   | 120W   | 140W   | 160W   | 180W   | 200W   | 250W   | 270W   | 300W    |      |
|-----------------------------------|------------------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|------|
| 名义制冷量<br>Nominal cooling capacity | kcal/h                       | 122980   | 161422 | 173376 | 231942 | 273308 | 321554 | 376594 | 457348 | 528642 | 594518 | 692386 | 819666 | 915126 | 1031828 |      |
|                                   | kw                           | 143  | 187.7  | 201.6  | 269.7  | 317.8  | 373.9  | 437.9  | 531.8  | 614.7  | 691.3  | 805.1  | 953.1  | 1064.1 | 1199.8  |      |
| 电源电压<br>voltage                   |                              | 3ph/380V~415V/50HZ   |        |        |        |        |        |        |        |        |        |        |        |        |         |      |
| 制冷剂<br>The refrigerant            | 类型<br>Types of               | R22(R407C)   |        |        |        |        |        |        |        |        |        |        |        |        |         |      |
|                                   | 控制方式<br>The refrigerant      | 外平衡热力膨胀阀<br>External balance thermal expansion valve   |        |        |        |        |        |        |        |        |        |        |        |        |         |      |
| 压缩机<br>compressor                 | 类型<br>Types of               | 半封闭螺杆式<br>Semi-closed screw  |        |        |        |        |        |        |        |        |        |        |        |        |         |      |
|                                   | 功率<br>power                  | kw   | 31.1   | 39     | 42.9   | 56.1   | 63.7   | 73.9   | 88.3   | 105.8  | 121.8  | 136.3  | 155.4  | 183    | 206.8   | 232  |
| 冷凝器<br>Condenser                  | 类型<br>Types of               | 壳管式<br>Shell and tube  |        |        |        |        |        |        |        |        |        |        |        |        |         |      |
|                                   | 冷却水量<br>Cooling air volume   | m <sup>3</sup> /h  | 30     | 39     | 43     | 57     | 67     | 77     | 92     | 108    | 125    | 142    | 160    | 192    | 209     | 245  |
|                                   | 水管接口<br>Water pipe interface | inch   | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 5"     | 5"     | 5"     | 6"     | 6"     | 6"     | 6"      |      |
| 蒸发器<br>Evaporator                 | 类型<br>Types of               | 干式壳管式<br>Dry shell tube type   |        |        |        |        |        |        |        |        |        |        |        |        |         |      |
|                                   | 冷冻水量<br>Chilled water volume | m <sup>3</sup> /h  | 25     | 32.5   | 35.5   | 47.5   | 55.5   | 64.5   | 77     | 91.5   | 105.5  | 119    | 138    | 162    | 175     | 206  |
|                                   | 水管接口<br>Water pipe interface | inch   | 3"     | 3"     | 3"     | 4"     | 4"     | 4"     | 5"     | 5"     | 5"     | 6"     | 6"     | 6"     | 6"      |      |
| 安全保护<br>safety protection         |                              | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |        |        |        |        |        |        |        |        |        |        |        |        |         |      |
| 外形尺寸<br>Dimensions                | 长<br>long                    | mm   | 2500   | 2550   | 2600   | 3000   | 3000   | 3000   | 3500   | 3500   | 3500   | 3800   | 3800   | 4300   | 4500    | 4600 |
|                                   | 宽<br>width                   | mm   | 780    | 780    | 780    | 900    | 900    | 1200   | 1200   | 1200   | 1200   | 1380   | 1380   | 1480   | 1480    | 1500 |
|                                   | 高<br>high                    | mm   | 1650   | 1650   | 1650   | 1800   | 1800   | 1600   | 1600   | 1600   | 1600   | 1750   | 1750   | 1780   | 1780    | 1800 |
| 整机重量<br>Total Weight              | kg                           | 1050   | 1200   | 1350   | 1980   | 2150   | 2250   | 2700   | 2800   | 2900   | 3400   | 3650   | 4150   | 4460   | 4650    |      |

以上数据根据以下设计工况得出：  
1. 冷冻水进出水温度12°C/7°C，冷凝温度40°C  
以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:  
1. chilled water inlet and outlet temperature 12°C/7°C, condensation temperature 40°C  
The above specifications are subject to change without notice.

## WATER-COOLED SCREW COOLER (DOUBLE HEAD) 水冷式螺杆冷机 (双机头)



### 机组特点和作用：

- 压缩机采用国际品牌，新型高效螺旋转子压缩机，比一般压缩机效能高出20%-30%，并获得欧美多国专利和ISO9001国际品质保证。
- 采用高效率矽钢片及特殊槽型设计，并配备内外全向式设计冷却流道，使压缩机马达在任何负载下均可发挥最高效率。
- 油分离器采用双层过滤方式，滤油效果佳，热交换器可发挥最大能力。
- 高效率、低噪音、低震动。

### 备注：

- 制冷量是依据：冷冻水进出水温度12°C/7°C，冷却水/风进出温度30°C/35°C
- 工作范围：冷冻水温度范围：5°C~30°C；冷冻水进出水温差：3°C~8°C  
冷却水温度范围：18°C~30°C；冷却水进出水温差：3.5°C~10°C
- 上述规格尺寸如有变更，恕不另行通知。

### UNIT FEATURES AND FUNCTIONS:

- The compressor adopts international brand, new high-efficiency spiral rotor compressor, which is 20%-30% higher than the general compressor performance, and has obtained multi-national patents and ISO9001 international quality assurance.
- It is designed with high-efficiency silicon steel sheet and special groove type, and is equipped with internal and external omnidirectional design cooling channels to maximize the efficiency of the compressor motor under any load.
- The oil separator adopts double-layer filtration method, which has good oil filtering effect and the heat exchanger can exert the maximum capacity.
- High efficiency, low noise and low vibration.

### REMARKS:

- Cooling capacity is based on: chilled water inlet and outlet water temperature 12°C / 7°C, cooling water / wind inlet and outlet temperature 30°C / 35°C
- Working range: chilled water temperature range: 5°C~30°C; chilled water inlet and outlet water temperature difference: 3°C~8°C
- Cooling water temperature range: 18°C~30°C; cooling water inlet and outlet water temperature difference: 3.5°C~10°C
- The above specifications are subject to change without notice.

### 水冷式螺杆冷水机运用领域

- 水冷式螺杆冷水机采用国际品牌压缩机，配套优质高效铜管制作冷凝器、蒸发器及控制组件。机组具备体积小、噪音低、高效能、使用寿命长、操作简单等优点，其优美的外形设计和可靠稳定的性能在同产品总出类拔萃。原装进口德国比泽尔，台湾汉钟双螺杆系列压缩机。双螺杆5：6齿数比及先进的线型设计，节能高效
- 高效活阀能量控制，实现分级或无级能控。平衡设计，运转超静平稳。
- 运动部件严格处理，特殊排气处油平衡块设计，无故障运行40000小时以上。

### WATER-COOLED SCREW CHILLER APPLICATION FIELD

- Water-cooled screw chillers adopt international brand compressors. Condensers, evaporators and thermal components of water-cooled screw chillers are equipped with high-quality and high-efficiency copper tubes. The unit features small size, low noise, high energy efficiency, long service life and simple operation. Its rational structure design and reliable and stable performance are outstanding.
- Originally imported Germany Bitzer, Taiwan Hanzhong twin-screw series compressor. Twin-screw 5.6 gear ratio and advanced linear design, energy efficient.
- High-efficiency solenoid valve energy control for four step or stepless control. Balanced design, running quietly and smoothly.
- Strict handling of moving parts, specially designed oil balance block at discharge, trouble-free operation longer than 40000 hours.

### 水冷式螺杆冷水机 (双机头) 技术参数

### WATER-COOLED SCREW CHILLER (DOUBLE HEAD) TECHNICAL PARAMETERS

| 设备型号 Model (PWSL*)                |                              | 100WD  | 120WD  | 150WD  | 170WD  | 200WD  | 240WD  | 280WD  | 320WD   | 360WD   | 400WD   | 440WD   | 480WD   | 540WD   |         |
|-----------------------------------|------------------------------|--|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 名义制冷量<br>Nominal cooling capacity | kcal/h                       | 322844   | 346752 | 463884 | 546616 | 643108 | 894400 | 94600  | 1057284 | 1189036 | 1384772 | 1490380 | 1622132 | 1830252 |         |
|                                   | kw                           | 375.4  | 403.2  | 539.4  | 635.6  | 747.8  | 1040   | 1100   | 1229.4  | 1382.6  | 1610.2  | 1733    | 1886.2  | 2128.2  |         |
| 电源电压<br>voltage                   |                              | 3ph/380V~415V/50HZ   |        |        |        |        |        |        |         |         |         |         |         |         |         |
| 制冷剂<br>The refrigerant            | 类型<br>Types of               | R22(R407C)   |        |        |        |        |        |        |         |         |         |         |         |         |         |
|                                   | 控制方式<br>The refrigerant      | 外平衡热力膨胀阀<br>External balance thermal expansion valve   |        |        |        |        |        |        |         |         |         |         |         |         |         |
| 压缩机<br>compressor                 | 类型<br>Types of               | 半封闭螺杆式<br>Semi-closed screw  |        |        |        |        |        |        |         |         |         |         |         |         |         |
|                                   | 功率<br>power                  | kw   | 39*2   | 42.9*2 | 56.1*2 | 63.7*2 | 73.9*2 | 88.3*2 | 105.8*2 | 121.8*2 | 136.3*2 | 155.4*2 | 167.6*2 | 183*2   | 206.8*2 |
| 冷凝器<br>Condenser                  | 类型<br>Types of               | 壳管式<br>Shell and tube  |        |        |        |        |        |        |         |         |         |         |         |         |         |
|                                   | 冷却水量<br>Cooling water volume | m³/h   | 78     | 86     | 114    | 134    | 155    | 185    | 217     | 250     | 285     | 310     | 357     | 384     | 419     |
|                                   | 水管接口<br>Water pipe interface | inch   | 4"     | 5"     | 5"     | 4*2    | 4*2    | 4*2    | 5*2     | 5*2     | 6*2     | 6*2     | 6*2     | 6*2     | 6*2     |
| 蒸发器<br>Evaporator                 | 类型<br>Types of               | 干式壳管式<br>Dry shell tube  |        |        |        |        |        |        |         |         |         |         |         |         |         |
|                                   | 冷冻水量<br>Chilled water volume | m³/h   | 50.4   | 59     | 84.6   | 96.3   | 110    | 136.2  | 182.9   | 211.4   | 237.8   | 258     | 304.1   | 324.7   | 350.2   |
|                                   | 水管接口<br>Water pipe interface | inch   | 4"     | 5"     | 5"     | 6"     | 6"     | 6"     | 6"      | 6"      | 8"      | 8"      | 8"      | 10"     | 10"     |
| 安全保护<br>safety protection         |                              | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |        |        |        |        |        |        |         |         |         |         |         |         |         |
| 外形尺寸<br>Dimensions                | 长<br>long                    | mm   | 3600   | 3850   | 3860   | 3910   | 4050   | 4150   | 4250    | 4350    | 4450    | 4450    | 4900    | 4950    | 5010    |
|                                   | 宽<br>width                   | mm   | 1000   | 1000   | 1000   | 1000   | 1200   | 1320   | 1320    | 1320    | 1580    | 1580    | 1600    | 1760    | 1760    |
|                                   | 高<br>high                    | mm   | 1750   | 1750   | 1750   | 1950   | 2150   | 2150   | 2150    | 2150    | 2230    | 2230    | 2350    | 2360    | 2360    |
| 整机重量<br>Total Weight              | kg                           | 1920   | 2250   | 2610   | 2820   | 3460   | 3920   | 4230   | 4730    | 5380    | 5750    | 5920    | 6450    | 6450    |         |

以上数据根据以下设计工况得出：  
1. 冷冻水进出水温度12°C/7°C，冷凝温度40°C  
以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:  
1. chilled water inlet and outlet temperature 12°C/7°C, condensation temperature 40°C  
The above specifications are subject to change without notice.

## AIR-COOLED LOW TEMPERATURE CHILLER 风冷式低温冷水机



### 机组特点和作用：

●PW-L系列低温冷冻机是普威公司针对医疗、化工、生物工程等行业，精心设计研发的新一代低温冷冻设备。其温度范围可在-30度~+5度之间任意调节，压缩机选用丹麦“丹佛斯”，制冷量充足，规格齐全，是新一代制冷设备的典范。

### 备注：

- 制冷量是依据：冷冻水进出水温度-5°C/-10°C，冷却水/风进出温度30°C/35°C
- 工作范围：冷冻水温度范围：-10°C~10°C；冷冻水进出水温差:3°C~8°C
- 在环境温度不高于35°C使用。
- 上述规格尺寸如有变更，恕不另行通知。

### UNIT FEATURES AND FUNCTIONS:

●PW-L series cryogenic refrigerator is a new generation of cryogenic refrigeration equipment designed and developed by Puwei for medical, chemical, bioengineering and other industries. The temperature range can be adjusted between -30 degrees and +5 degrees. The compressor is Danfoss, Denmark. It has sufficient cooling capacity and complete specifications. It is a model of new generation refrigeration equipment.

### REMARKS:

- Cooling capacity is based on: chilled water inlet and outlet water temperature -5°C / -10°C, cooling water / wind in and out temperature 30°C / 35°C
- Working range: chilled water temperature range: -10°C~10°C; chilled water inlet and outlet water temperature difference: 3°C~8°C
- Cooling water temperature range: 18°C~35°C chilled water inlet and outlet water temperature difference: 3.5°C~10°C
- The above specifications are subject to change without notice.

### 机组特点

- 精选进口半封闭活塞式压缩机，制冷效率高，性能卓越。
- 原装施耐德电气保护机组运行安全，工作时长。
- 采用高效率水泵，流量大，省电耐用。
- 简明设计易安装，操作简便，清洗维护方便。
- 干壳管式或不锈钢板式蒸发器，高效。
- 高效翅片冷凝器-风冷型。干壳管式冷凝器-水冷型。
- R22、R407C、R404A冷媒备选。
- 380V/50HZ 3PH 标准设计电源电压，可根据客户不同要求订制。

### 应用范围

●低温冷冻机是我司针对医疗、化工，生物工程等特殊行业，精心设计研发的新一代低温冷冻设备，其温度范围可在-35°C/+5°C之间任意调节。

### UNIT CHARACTERISTICS

- Selected imported semi-closed piston compressor with high cooling efficiency and excellent performance.
- Original Schneider Electric protection unit operates safely and has a long working time.
- Using high efficiency water pump, large flow, energy saving and durable.
- Concise design is easy to install, easy to operate, easy to clean and maintain.
- Dry shell or stainless steel plate evaporator, energy efficient.
- High efficiency fin condenser - air-cooled type. Dry shell tube condenser - water cooled type.
- R22, R407C, R404A refrigerant options.
- 380V/50HZ 3PH standard design power supply voltage, can be customized according to different requirements of customers.

### APPLICATION RANGE

●The cryogenic refrigerator is a new generation of cryogenic refrigeration equipment specially designed and developed for special industries such as medical, chemical, bioengineering, etc. The temperature range can be adjusted freely between -35 °C / +5 °C.

### 风冷式低温冷水机技术参数

### AIR-COOLED LOW TEMPERATURE CHILLER TECHNICAL PARAMETERS

| 设备型号 Model (PWL)   | 3A 4A 5A 6A 8 10 12 15 20AD 25AD 30AD 40AD   |  |      |      |      |      |        |        |        |      |        |        |        |        |
|--|--|--|------|------|------|------|--------|--------|--------|------|--------|--------|--------|--------|
| 名义制冷量<br>(出水温度)<br>Nominal cooling capacity<br>(water temperature) | -5   | kw   | 4.55 | 6.2  | 7.75 | 9.1  | 11.5   | 15.7   | 19.3   | 23.5 | 31.4   | 38.6   | 47     | 32*2   |
|  | -10  |  | 3.75 | 5.1  | 6.35 | 7.5  | 9.1    | 13.2   | 16.1   | 19.5 | 26.4   | 32.2   | 39     | 26.5*2 |
|  | -15  |  | 3.1  | 4.15 | 5.2  | 6.15 | 6.9    | 11.2   | 13.25  | 15.9 | 22.4   | 26.5   | 31.8   | 21.6*2 |
| 电源电压<br>voltage  | 3ph/380V~415V/50HZ   |  |      |      |      |      |        |        |        |      |        |        |        |        |
| 制冷剂<br>The refrigerant   | 类型<br>Types of   | R22(R404a)   |      |      |      |      |        |        |        |      |        |        |        |        |
|  | 控制方式<br>The refrigerant  | 外平衡热力膨胀阀<br>External balance thermal expansion valve   |      |      |      |      |        |        |        |      |        |        |        |        |
| 压缩机<br>compressor  | 类型<br>Types of   | 全封闭涡旋式(活塞式)<br>Fully enclosed scroll (piston)  |      |      |      |      |        |        |        |      |        |        |        |        |
|  | 功率<br>power  | kw   | 3.3  | 3.77 | 4.68 | 5.35 | 7.25   | 9.25   | 11.3   | 13.6 | 9.25*2 | 11.3*2 | 13.6*2 | 16.9*2 |
| 冷凝器<br>Condenser   | 类型<br>Types of   | 高效紫铜管套铝翅片式+大风量低噪音外转子风机<br>High-efficiency copper tube sleeve aluminum fin type + high air volume low noise outer rotor fan |      |      |      |      |        |        |        |      |        |        |        |        |
| 蒸发器<br>Evaporator  | 类型<br>Types of   | 干壳管式/不锈钢板换<br>Dry shell tube / stainless steel plate   |      |      |      |      |        |        |        |      |        |        |        |        |
|  | 水管接口<br>Water pipe interface   | inch   | 1"   | 1"   | 1"   | 1"   | 1-1/4" | 1-1/4" | 1-1/2" | 2"   | 2"     | 2-1/2" | 2-1/2" | 3"     |
| 安全保护<br>safety protection  | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |  |      |      |      |      |        |        |        |      |        |        |        |        |
| 外形尺寸<br>Dimensions   | 长<br>long  | mm   | 1050 | 1050 | 1050 | 1050 | 1370   | 1550   | 1550   | 1850 | 1950   | 2000   | 2050   | 2350   |
|  | 宽<br>width   | mm   | 560  | 560  | 560  | 560  | 700    | 800    | 800    | 950  | 1000   | 1130   | 1500   | 1800   |
|  | 高<br>high  | mm   | 1280 | 1280 | 1280 | 1280 | 1450   | 1650   | 1650   | 1850 | 1950   | 1924   | 1800   | 1800   |
| 整机重量<br>Total Weight   |  | kg   | 135  | 175  | 175  | 210  | 30     | 450    | 530    | 750  | 835    | 920    | 1080   | 1125   |

以上数据根据以下设计工况得出：  
1. 冷冻水进出温度12°C/7°C，冷凝温度50°C  
以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:  
1. chilled water inlet and outlet temperature 12°C/7°C, condensation temperature 50 °C  
The above specifications are subject to change without notice.

## WATER-COOLED LOW TEMPERATURE CHILLER 水冷式低温冷水机



### 机组特点和作用：

●PW-PL系列低温冷冻机是普威公司针对医疗、化工、生物工程等行业，精心设计研发的新一代低温冷冻设备。其温度范围可在-30度~+5度之间任意调节，压缩机选用丹麦“丹佛斯”，制冷量充足，规格齐全，是新一代制冷设备的典范。

### 备注：

- 制冷量是依据：冷冻水进出水温度-5°C/-10°C，冷却水/风进出水温度30°C/35°C
- 工作范围：冷冻水温度范围：-10°C~10°C；冷冻水进出水温差:3°C~8°C
- 冷却水温度范围：18°C-35°C冷冻水进出水温差：3.5°C-10°C
- 上述规格尺寸如有变更，恕不另行通知。

### UNIT FEATURES AND FUNCTIONS:

●PW-PL series cryogenic refrigerator is a new generation of cryogenic refrigeration equipment designed and developed by Puwei for medical, chemical, bioengineering and other industries. The temperature range can be adjusted between -30 degrees and +5 degrees. The compressor is Danfoss, Denmark. It has sufficient cooling capacity and complete specifications. It is a model of new generation refrigeration equipment.

### REMARKS:

- Cooling capacity is based on: chilled water inlet and outlet water temperature -5°C / -10°C, cooling water / wind in and out temperature 30°C / 35°C
- Working range: chilled water temperature range: -10°C~10°C; chilled water inlet and outlet water temperature difference: 3°C~8°C
- Cooling water temperature range: 18°C~35°C chilled water inlet and outlet water temperature difference: 3.5°C~10°C
- The above specifications are subject to change without notice.

### 机组特点

- 精选进口半封闭活塞式压缩机，制冷效率高，性能卓越。
- 原装施耐德电气保护机组运行安全，工作时间长。
- 采用高效率水泵，流量大，省电耐用。
- 简明设计易安装，操作简便，清洗维护方便。
- 干式壳管式或不锈钢板式蒸发器，高效。
- 高效翅片冷凝器-风冷型。干壳管式冷凝器-水冷型。
- R22、R407C、R404A冷媒备选。
- 380V/50HZ 3PH 标准设计电源电压，可根据客户不同要求订制。

### 应用范围

●低温冷冻机是我司针对医疗、化工，生物工程等特殊行业，精心设计研发的新一代低温冷冻设备，其温度范围可在-35°C/+5°C之间任意调节。

### UNIT CHARACTERISTICS

- Selected imported semi-closed piston compressor with high cooling efficiency and excellent performance.
- Original Schneider Electric protection unit operates safely and has a long working time.
- Using high efficiency water pump, large flow, energy saving and durable.
- Concise design is easy to install, easy to operate, easy to clean and maintain.
- Dry shell or stainless steel plate evaporator, energy efficient.
- High efficiency fin condenser - air-cooled type. Dry shell tube condenser - water cooled type.
- R22, R407C, R404A refrigerant options.
- 380V/50HZ 3PH standard design power supply voltage, can be customized according to different requirements of customers.

### APPLICATION RANGE

●The cryogenic refrigerator is a new generation of cryogenic refrigeration equipment specially designed and developed for special industries such as medical, chemical, bioengineering, etc. The temperature range can be adjusted freely between -35 °C / +5 °C.

### 水冷式低温冷水机技术参数

### AIR-COOLED LOW TEMPERATURE CHILLER TECHNICAL PARAMETERS

| 设备型号 Model (PWL**)  |                              | 3W   | 4W   | 5W   | 6W    | 8W   | 10W  | 12W    | 15W    | 20WD | 25WD   | 30WD   | 40WD   |        |
|---|------------------------------|--|------|------|-------|------|------|--------|--------|------|--------|--------|--------|--------|
| 名义制冷量<br>(出水温度)<br>Nominal cooling<br>capacity<br>(water temperature) | -5                           | 5.5  | 7.5  | 9.3  | 10.95 | 14.4 | 19.4 | 23     | 28.1   | 38.8 | 46     | 56.2   | 78     |        |
|   | -10                          | 4.55   | 6.2  | 7.7  | 9.05  | 11.7 | 16.1 | 19.1   | 23.3   | 32.2 | 38.2   | 46.6   | 64.4   |        |
|   | -15                          | 3.7  | 5.05 | 6.25 | 7.4   | 9.25 | 13.3 | 15.8   | 19.1   | 26.6 | 31.6   | 38.2   | 53.2   |        |
| 电源电压<br>voltage   |                              | 3ph/380V~415V/50HZ   |      |      |       |      |      |        |        |      |        |        |        |        |
| 制冷剂<br>The refrigerant  | 类型<br>Types of               | R22(R404a)   |      |      |       |      |      |        |        |      |        |        |        |        |
|   | 控制方式<br>The refrigerant      | 外平衡热力膨胀阀<br>External balance thermal expansion valve   |      |      |       |      |      |        |        |      |        |        |        |        |
| 压缩机<br>compressor   | 类型<br>Types of               | 全封闭涡旋式(活塞式)<br>Fully enclosed scroll (piston)  |      |      |       |      |      |        |        |      |        |        |        |        |
|   | 功率<br>power                  | kw   | 3.3  | 3.77 | 4.68  | 5.35 | 7.25 | 9.25   | 11.3   | 13.6 | 9.25*2 | 11.3*2 | 13.6*2 | 16.5*2 |
| 冷凝器<br>Condenser  | 类型<br>Types of               | 高效紫铜管套铝翅片式+大风量低噪音外转子风机<br>High-efficiency copper tube sleeve aluminum fin type + high air volume low noise outer rotor fan   |      |      |       |      |      |        |        |      |        |        |        |        |
| 蒸发器<br>Evaporator   | 类型<br>Types of               | 干式壳管式/不锈钢板换<br>Dry shell tube / stainless steel plate  |      |      |       |      |      |        |        |      |        |        |        |        |
|   | 水管接口<br>Water pipe interface | inch   | 1"   | 1"   | 1"    | 1"   | 1"   | 1-1/2" | 1-1/2" | 2"   | 2"     | 2-1/2" | 2-1/2" | 3"     |
| 安全保护<br>safety protection   |                              | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |      |      |       |      |      |        |        |      |        |        |        |        |
| 外形尺寸<br>Dimensions  | 长<br>long                    | mm   | 850  | 1050 | 1050  | 1050 | 1250 | 1250   | 1250   | 1650 | 1650   | 1900   | 1900   | 2000   |
|   | 宽<br>width                   | mm   | 480  | 550  | 550   | 550  | 680  | 680    | 680    | 750  | 750    | 910    | 910    | 960    |
|   | 高<br>high                    | mm   | 1020 | 1150 | 1150  | 1150 | 1380 | 1380   | 1380   | 1650 | 1650   | 1720   | 1720   | 1860   |
| 整机重量<br>Total Weight  | kg                           | 130  | 150  | 190  | 190   | 300  | 430  | 500    | 735    | 820  | 900    | 1150   | 1200   |        |

以上数据根据以下设计工况得出：

1.冷凝温度40°C

以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:

Condensation temperature 40 °C

The above specifications are subject to change without notice.

## AIR COOLED LOW TEMPERATURE SCREW FREEZER

### 风冷低温螺杆式冷冻机



#### 机组特点

- 精选进口半封闭活塞式压缩机，制冷效率高，性能卓越。
- 原装施耐德电气保护机组运行安全，工作时长。
- 采用高效率水泵，流量大，省电耐用。
- 简明设计易安装，操作简便，清洗维护方便。
- 干式壳管式或不锈钢板式蒸发器，高效率。
- 高效翅片冷凝器-风冷型。干壳管式冷凝器-水冷型。
- R22、R407C、R404A冷媒备选。
- 380V/50HZ 3PH 标准设计电源电压，可根据客户不同要求订制。

#### 应用范围

- 低温冷冻机是我司针对医疗、化工、生物工程等特殊行业，精心设计研发的新一代低温冷冻设备，其温度范围可在-35℃/+5℃之间任意调节。

#### UNIT CHARACTERISTICS

- Selected imported semi-closed piston compressor with high cooling efficiency and excellent performance.
- Original Schneider Electric protection unit operates safely and has a long working time.
- Using high efficiency water pump, large flow, energy saving and durable.
- Concise design is easy to install, easy to operate, easy to clean and maintain.
- Dry shell or stainless steel plate evaporator, energy efficient.
- High efficiency fin condenser - air-cooled type. Dry shell tube condenser - water cooled type.
- R22, R407C, R404A refrigerant options.
- 380V/50HZ 3PH standard design power supply voltage, can be customized according to different requirements of customers.

#### APPLICATION RANGE

- The cryogenic refrigerator is a new generation of cryogenic refrigeration equipment specially designed and developed for special industries such as medical, chemical, bioengineering, etc. The temperature range can be adjusted freely between -35 °C / +5 °C.

#### 风冷低温螺杆式冷冻机（单机头）

#### AIR-COOLED LOW-TEMPERATURE SCREW FREEZER (SINGLE HEAD)

| 设备型号 Model (PWSL**)  |  |  | 40A                | 50A  | 65A   | 75A   | 85A   | 100A  | 120A  | 140A  |      |
|--|--|--|--------------------|------|-------|-------|-------|-------|-------|-------|------|
| 名义制冷量<br>(出水温度)<br>Nominal cooling capacity<br>(water temperature) | -5   | kw   | 63.2               | 83.2 | 111.1 | 119.5 | 141.1 | 166.1 | 194.3 | 236.2 |      |
|  | -10  |  | 50.6               | 66.6 | 89    | 95.8  | 113.2 | 133.3 | 155.9 | 189.5 |      |
|  | -15  |  | 40                 | 52.7 | 70.5  | 75.8  | 89.7  | 105.7 | 123.5 | 150.2 |      |
| 电源电压<br>voltage  |  |  | 3ph/380V~415V/50HZ |      |       |       |       |       |       |       |      |
| 制冷剂<br>The refrigerant   | 类型<br>Types of   | R22(R404a)   |                    |      |       |       |       |       |       |       |      |
|  | 控制方式<br>The refrigerant  | 外平衡热力膨胀阀<br>External balance thermal expansion valve   |                    |      |       |       |       |       |       |       |      |
| 压缩机<br>compressor  | 类型<br>Types of   | 半封闭螺杆式<br>Semi-closed screw  |                    |      |       |       |       |       |       |       |      |
|  | 功率<br>power  | kw   | 33.4               | 41.9 | 55.3  | 60.4  | 68.5  | 79.5  | 95    | 113.8 |      |
| 冷凝器<br>Condenser   | 类型<br>Types of   | 高效紫铜管套铝翅片式+大风量低噪音外转子风机<br>High-efficiency copper tube sleeve aluminum fin type + high air volume low noise outer rotor fan |                    |      |       |       |       |       |       |       |      |
| 蒸发器<br>Evaporator  | 类型<br>Types of   | 干式壳管式/不锈钢板换<br>Dry shell tube / stainless steel plate  |                    |      |       |       |       |       |       |       |      |
|  | 水管接口<br>Water pipe interface   | inch   | 3                  | 3    | 3     | 4     | 4     | 4     | 4     | 5     |      |
| 安全保护<br>safety protection  | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |  |                    |      |       |       |       |       |       |       |      |
| 外形尺寸<br>Dimensions   | 长<br>long  | mm   | 2650               | 2200 | 2500  | 2950  | 3200  | 4000  | 4800  | 5500  |      |
|  | 宽<br>width   | mm   | 1200               | 1760 | 1850  | 1950  | 1950  | 1950  | 1950  | 2100  |      |
|  | 高<br>high  | mm   | 2200               | 2200 | 2150  | 2250  | 2200  | 2200  | 2200  | 2200  |      |
| 整机重量<br>Total Weight   |  |  | kg                 | 1450 | 1750  | 2100  | 2450  | 2600  | 3110  | 3300  | 3550 |

#### 风冷低温螺杆式冷冻机（双机头）

#### AIR-COOLED LOW TEMPERATURE SCREW FREEZER (DUAL HEAD)

| 设备型号 Model (PW*xx)   |  |  | 80AD               | 100AD  | 130AD  | 150AD  | 170AD  | 200AD  | 240AD | 280AD   |      |
|--|--|--|--------------------|--------|--------|--------|--------|--------|-------|---------|------|
| 名义制冷量<br>(出水温度)<br>Nominal cooling capacity<br>(water temperature) | -5   | kw   | 126.4              | 166.4  | 222.2  | 239    | 282.2  | 332.2  | 388.6 | 472.4   |      |
|  | -10  |  | 101.2              | 133.2  | 178    | 191.6  | 226.4  | 266.6  | 311.8 | 379     |      |
|  | -15  |  | 80                 | 105.4  | 141    | 151.6  | 179.4  | 211.4  | 247   | 300.4   |      |
| 电源电压<br>voltage  |  |  | 3ph/380V~415V/50HZ |        |        |        |        |        |       |         |      |
| 制冷剂<br>The refrigerant   | 类型<br>Types of   | R22(R404a)   |                    |        |        |        |        |        |       |         |      |
|  | 控制方式<br>The refrigerant  | 外平衡热力膨胀阀<br>External balance thermal expansion valve   |                    |        |        |        |        |        |       |         |      |
| 压缩机<br>compressor  | 类型<br>Types of   | 半封闭螺杆式<br>Semi-closed screw  |                    |        |        |        |        |        |       |         |      |
|  | 功率<br>power  | kw   | 33.4*2             | 41.9*2 | 55.3*2 | 60.4*2 | 68.5*2 | 79.5*2 | 95*2  | 113.8*2 |      |
| 冷凝器<br>Condenser   | 类型<br>Types of   | 高效紫铜管套铝翅片式+大风量低噪音外转子风机<br>High-efficiency copper tube sleeve aluminum fin type + high air volume low noise outer rotor fan |                    |        |        |        |        |        |       |         |      |
| 蒸发器<br>Evaporator  | 类型<br>Types of   | 干式壳管式/不锈钢板换<br>Dry shell tube / stainless steel plate  |                    |        |        |        |        |        |       |         |      |
|  | 水管接口<br>Water pipe interface   | inch   | 4                  | 4      | 5      | 5      | 6      | 6      | 8     | 8       |      |
| 安全保护<br>safety protection  | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |  |                    |        |        |        |        |        |       |         |      |
| 外形尺寸<br>Dimensions   | 长<br>long  | mm   | 3200               | 4000   | 4800   | 5500   | 6200   | 6800   | 8500  | 10500   |      |
|  | 宽<br>width   | mm   | 1950               | 1950   | 1950   | 1950   | 2000   | 2000   | 2200  | 2200    |      |
|  | 高<br>high  | mm   | 2200               | 2200   | 2200   | 2200   | 2200   | 2200   | 2350  | 2350    |      |
| 整机重量<br>Total Weight   |  |  | kg                 | 2900   | 2350   | 3750   | 4200   | 4600   | 4950  | 5900    | 6150 |

以上数据根据以下设计工况得出：

1. 冷凝温度40℃

以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:

Condensation temperature 40 °C

The above specifications are subject to change without notice.

## WATER COOLED LOW TEMPERATURE SCREW FREEZER

### 水冷低温螺杆式冷冻机



#### 机组特点

- 机组可提供5°C至-40°C的低温冷冻水。
- 采用进口高效半封闭双螺杆压缩机，能效比较高，运行可靠，寿命长。
- 压缩机分段容量控制，有效地降低了启动电流及对电网的冲击。
- 25%-100%间连续性能量调节（无级能调），保证压缩机效能的完全发挥并帮助用户最大程度地节约运行费用。
- 采用高进度大屏幕触摸屏，进口品牌PLC控制器。
- 多重保护功能：压缩机排气超温、电机超温、冷水防冻等温度保护、过流、缺相、逆相等电气保护；冷媒系统高低压、断水等非正常状态保护。
- 大容量PLC储存，可永久保存上百条报警记录，有效监控机组运行情况。
- 密码设置，保证设备不会因偶然的因素造成停机或损坏。选用国际著名品牌的热力膨胀阀、电磁阀、单向阀等控制元件，保证机组在宽广的使用工况范围内高效稳定地运行。
- 产品经制造厂全面的检测和满负荷运行试验合格后带冷媒出厂，设备在水、电到位后开机即可工作。
- 压缩机内设有专利的排气消气器，保证机组的低噪音运行。
- 耐盐水处理设计可选。
- 可选冷媒：R22、R407C、R404A

#### UNIT CHARACTERISTICS

- The unit can supply low temperature chilled water from 5 °C to -40 °C.
- The imported high-efficiency semi-closed twin-screw compressor has high energy efficiency, reliable operation and long service life.
- The compressor segmentation capacity control effectively reduces the starting current and the impact on the grid.
- 25%-100% continuous energy regulation (stepless energy adjustment), to ensure the full performance of the compressor and help users to maximize operating costs.
- Adopt high-precision large-screen touch screen and imported brand PLC controller.
- Multiple protection functions: temperature protection of compressor exhaust over temperature, motor over temperature, cold water antifreeze, over current, phase loss, reverse equal electrical protection; refrigerant system high and low pressure, water cut and other state protection.
- Large-capacity PLC storage, can permanently save hundreds of alarm records, effectively monitor unit operation.
- The password setting ensures that the device will not be shut down or damaged due to accidental factors. Use the international famous brand of thermal expansion valve. Control components such as solenoid valves and check valves ensure efficient and stable operation of the unit within a wide range of operating conditions.
- After the product has passed the comprehensive inspection and full-load operation test of the manufacturer, it will be shipped with the refrigerant. The equipment can be started after the water and electricity are in place.
- A patented exhaust gas eliminator is installed in the compressor to ensure low noise operation of the unit.
- The salt water resistant corrosion waterway design is optional.
- Optional refrigerant: R22, R407C, R404A

#### 水冷低温螺杆式冷冻机（单机头）

#### WATER-COOLED LOW-TEMPERATURE SCREW FREEZER (SINGLE HEAD)

| 设备型号 Model (PWSL**)   |                              |      | 40W  | 50W   | 65W   | 75W   | 100W  | 120W  | 150W  | 180W  | 200W  |      |
|---|------------------------------|------|--|---|-------|-------|-------|-------|-------|-------|-------|------|
| 名义制冷量<br>(出水温度)<br>Nominal cooling<br>capacity<br>(water temperature) | -5                           | kw   | 74.9   | 98.4  | 131.4 | 141.4 | 196.8 | 230.5 | 292.6 | 363.9 | 423.8 |      |
|   | -10                          |      | 60.7   | 79.8  | 106.5 | 114.7 | 159.2 | 186.3 | 236.8 | 294.4 | 343.1 |      |
|   | -15                          |      | 48.6   | 64  | 85.5  | 92    | 127.8 | 149.5 | 190.2 | 236.4 | 275.6 |      |
| 电源电压<br>voltage   |                              |      | 3ph/380V~415V/50HZ   |   |       |       |       |       |       |       |       |      |
| 制冷剂<br>The refrigerant  | 类型<br>Types of               |      |  | R22(R404a)  |       |       |       |       |       |       |       |      |
|   | 控制方式<br>The refrigerant      |      |  | 外平衡热力膨胀阀<br>External balance thermal expansion valve  |       |       |       |       |       |       |       |      |
| 压缩机<br>compressor   | 类型<br>Types of               |      |  | 半封闭螺杆式<br>Semi-closed screw                           |       |       |       |       |       |       |       |      |
|   | 功率<br>power                  | kw   | 28   | 35.2  | 46.4  | 50.6  | 66.6  | 79.6  | 97.5  | 122.8 | 140.1 |      |
| 冷凝器<br>Condenser  | 类型<br>Types of               |      |  | 壳管式<br>Shell and tube                                 |       |       |       |       |       |       |       |      |
| 蒸发器<br>Evaporator   | 类型<br>Types of               |      |  | 干式壳管式/不锈钢板换<br>Dry shell tube / stainless steel plate |       |       |       |       |       |       |       |      |
|   | 水管接口<br>Water pipe interface | in h | 3  | 3   | 3     | 4     | 4     | 5     | 5     | 6     | 8     |      |
| 安全保护<br>safety protection   |                              |      | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |   |       |       |       |       |       |       |       |      |
| 外形尺寸<br>Dimensions  | 长<br>long                    | mm   | 2500   | 2550  | 2600  | 2750  | 2900  | 3000  | 3300  | 3800  | 3900  |      |
|   | 宽<br>width                   | mm   | 780  | 780   | 780   | 780   | 950   | 1200  | 1380  | 1380  | 1380  |      |
|   | 高<br>high                    | mm   | 1650   | 1650  | 1650  | 1650  | 1950  | 1580  | 1630  | 1750  | 1750  |      |
| 整机重量<br>Total Weight  |                              |      | kg   | 1050  | 1250  | 1400  | 17802 | 2300  | 2750  | 3000  | 3500  | 3750 |

#### 水冷低温螺杆式冷冻机（双机头）

#### WATER COOLED LOW TEMPERATURE SCREW FREEZER (DOUBLE HEAD)

| 设备型号 Model (PW*xx)  |                              |      | 80WD   | 100WD   | 130WD  | 150WD | 200WD  | 240WD  | 300WD  | 360WD   | 400WD   |  |
|---|------------------------------|------|--|---|--------|-------|--------|--------|--------|---------|---------|--|
| 名义制冷量<br>(出水温度)<br>Nominal cooling<br>capacity<br>(water temperature) | -5                           | kw   | 149.8  | 196.8   | 262.8  | 282.8 | 393.6  | 461    | 585.2  | 727.8   | 847.6   |  |
|   | -10                          |      | 121.4  | 159.6   | 213    | 229.4 | 318.4  | 372.6  | 473.6  | 588.8   | 686.2   |  |
|   | -15                          |      | 97.2   | 128   | 171    | 184   | 255.6  | 299    | 380.4  | 472.8   | 551.2   |  |
| 电源电压<br>voltage   |                              |      | 3ph/380V~415V/50HZ   |   |        |       |        |        |        |         |         |  |
| 制冷剂<br>The refrigerant  | 类型<br>Types of               |      |  | R22(R404a)  |        |       |        |        |        |         |         |  |
|   | 控制方式<br>The refrigerant      |      |  | 外平衡热力膨胀阀<br>External balance thermal expansion valve  |        |       |        |        |        |         |         |  |
| 压缩机<br>compressor   | 类型<br>Types of               |      |  | 半封闭螺杆式<br>Semi-closed screw                           |        |       |        |        |        |         |         |  |
|   | 功率<br>power                  | kw   | 28*2   | 35.2*2  | 46.4*2 | 50.6  | 66.6*2 | 79.6*2 | 97.5*2 | 122.8*2 | 140.1*2 |  |
| 冷凝器<br>Condenser  | 类型<br>Types of               |      |  | 壳管式<br>Shell and tube                                 |        |       |        |        |        |         |         |  |
| 蒸发器<br>Evaporator   | 类型<br>Types of               |      |  | 干式壳管式/不锈钢板换<br>Dry shell tube / stainless steel plate |        |       |        |        |        |         |         |  |
|   | 水管接口<br>Water pipe interface | inch | 4  | 4   | 5      | 6     | 8      | 8      | 8      | 8       | 10      |  |
| 安全保护<br>safety protection   |                              |      | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |   |        |       |        |        |        |         |         |  |
| 外形尺寸<br>Dimensions  | 长<br>long                    | mm   | 2880   | 2280  | 2950   | 3150  | 3480   | 3650   | 3750   | 4230    | 4230    |  |
|   | 宽<br>width                   | mm   | 780  | 780   | 810    | 850   | 895    | 1120   | 1300   | 1380    | 1480    |  |
|   | 高<br>high                    | mm   | 1650   | 1650  | 1650   | 1750  | 1850   | 1950   | 2100   | 2150    | 2250    |  |
| 整机重量<br>Total Weight  |                              |      | kg   | 2150  | 2150   | 2500  | 2950   | 3950   | 4450   | 5050    | 5950    |  |

以上数据根据以下设计工况得出：  
1. 冷凝温度40°C  
以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:  
Condensation temperature 40 °C  
The above specifications are subject to change without notice.



## HOT AND COLD DUAL-USE MACHINE

### 冷热两用一体机



#### 机组特点和作用：

●PW-H系列冷热两用控温机是普威公司为适应广大客户需求而推出的，专业提供冷却和加热循环用水的一体机，广泛应用于海绵制造、桑拿泳池、复合材料发泡、医疗和化工行业。

#### 备注：

- 制冷量是依据：冷冻水进出水温度12°C/7°C，冷却水/风进出温度30°C/35°C
- 工作范围：循环水温度范围：5°C~50°C；冷冻水进出水温差:3°C~8°C
- 在环境温度不高于35°C使用。
- 保留更改上述参数或尺寸而不另行通知的权利。

#### UNIT FEATURES AND FUNCTIONS:

●PW-H series hot and cold temperature control machine is launched by Puwei Company to meet the needs of customers. It is specialized in providing cooling and heating circulating water. It is widely used in sponge manufacturing, sauna swimming pool, composite foaming and medical treatment. And the chemical industry.

#### REMARKS:

- Cooling capacity is based on: chilled water inlet and outlet water temperature 12°C / 7°C, cooling water / wind inlet and outlet temperature 30°C / 35°C
- Working range: circulating water temperature range: 5°C~50°C; chilled water inlet and outlet water temperature difference: 3°C~8°C
- Use at an ambient temperature not higher than 35 °C.
- Reserves the right to change the above parameters or dimensions without prior notice.

#### 冷热两用一体机运用领域

冷水机应用于塑料加工机械成型模具冷却，能够大大提高塑料制品表面光洁度，减少塑料制品表面纹痕和内应力，使产品不缩水、不变形，便于塑料制品的脱模，加速产品定型，从而极大地提高塑料成型机的生产效率；

冷水机应用于电镀行业，阳极氧化，冷却镀酸铜，镀锡，镀镍等等，电镀专用冷水机蒸发器采用特制耐腐材料，把槽温控制在最佳温度，可实现光亮剂的零消耗，并且极大保证机器使用寿命。

现代技术突飞猛进发展到尽头，为了提高生产效率，改善产品质量，降低生产成本，故对生产过程中的温度控制要求越来越高，被广泛应用于金属佳宏，机械工程，医疗，化工，食品和饮料加工、激光、电子、纺织、半导体测试，水刀切割、真空镀膜、建筑和军事等行业。

#### HOT AND COLD DUAL-USE MACHINE APPLICATION FIELD

The chiller is applied to the cooling of plastic processing machinery forming molds, which can greatly improve the surface finish of plastic products, reduce the surface marks and internal stress of plastic products, so that the products do not shrink or deform, facilitate the demoulding of plastic products, accelerate the product stereotype, and thus The earth improves the production efficiency of plastic molding machines;

The chiller is used in the electroplating industry, anodizing, cooling copper plating, tin plating, nickel plating, etc. The special chiller evaporator for electroplating uses special anti-corrosion materials to control the bath temperature at the optimum temperature to achieve zero brightener. Consumed and greatly guaranteed machine life.

Modern technology has developed by leaps and bounds. In order to improve production efficiency, improve product quality and reduce production costs, the temperature control requirements in the production process are getting higher and higher, and it is widely used in metal Jiahong, mechanical engineering, medical, chemical, food and Beverage processing, laser, electronics, textile, semiconductor testing, waterjet cutting, vacuum coating, construction and military industries.

#### 冷热两用一体机技术参数

#### HOT AND COLD DUAL-PURPOSE MACHINE TECHNICAL PARAMETERS

| 设备型号 Model (PTCT**)               |                              | 3A   | 5A   | 6A     | 8AD  | 10AD   | 12AD   | 15AD   | 20AD  |        |
|-----------------------------------|------------------------------|--|--|--------|--|--------|--------|--------|-------|--------|
| 名义制冷量<br>Nominal cooling capacity | kcal/h                       | 6802.6   | 11094  | 13244  | 18060  | 22188  | 26488  | 34400  | 48160 |        |
|                                   | kw                           | 7.91   | 12.9   | 15.4   | 21   | 25.8   | 30.8   | 40     | 56    |        |
| 输入电功率<br>Input electric power     | kw                           | 3.33   | 5.12   | 5.85   | 7.99   | 10.59  | 12.8   | 15.3   |       |        |
| 电源电压<br>voltage                   |                              | 3ph/380V~415V/50HZ   |  |        |  |        |        |        |       |        |
| 制冷剂<br>The refrigerant            | 类型<br>Types of               | R22/R407C  |  |        |  |        |        |        |       |        |
|                                   | 控制方式<br>The refrigerant      | 毛细管<br>Capillary   |  |        | 外平衡热力膨胀阀<br>External balance thermal expansion valve |        |        |        |       |        |
| 压缩机<br>compressor                 | 类型<br>Types of               | 全封闭涡旋式<br>Fully enclosed scroll  |  |        |  |        |        |        |       |        |
|                                   | 功率<br>power                  | kw   | 2.68   | 4.47   | 5.2  | 3.37*2 | 4.47*2 | 5.2*2  | 6.3*2 | 8.45*2 |
| 制热<br>Heating                     | 功率<br>power                  | 1-6KW  |  |        |  | 1-30KW |        |        |       |        |
| 冷凝器<br>Condenser                  | 类型<br>Types of               | 高效紫铜管套铝翅片式+大风量低噪音外转子风机<br>High-efficiency copper tube sleeve aluminum fin type + high air volume low noise outer rotor fan |  |        |  |        |        |        |       |        |
|                                   | 冷却风量<br>Cooling air volume   | m <sup>3</sup> /h  | 3000   | 5000   | 6000   | 8000   | 10000  | 12000  | 15000 | 20000  |
|                                   | 风机功率<br>Fan power            | kw   | 0.14*2   | 0.14*2 | 0.14*2   | 0.25*2 | 0.45*2 | 0.45*2 | 0.6*2 | 0.8*2  |
| 蒸发器<br>Evaporator                 | 类型<br>Types of               | 水箱铜盘管式/干式壳管式<br>Water tank copper coil type / dry shell tube type  |  |        |  |        |        |        |       |        |
|                                   | 冷冻水量<br>Chilled water volume | m <sup>3</sup> /h  | 1.59   | 2.58   | 3.05   | 4.02   | 5.34   | 6.03   | 7.86  | 10.9   |
|                                   | 水箱容量<br>Water tank capacity  | liter  | 50   | 55     | 75   | 120    | 200    | 200    | 300   | 350    |
| 水泵<br>Water pump                  | 水管接口<br>Water pipe interface | inch   | 1"   | 1"     | 1"   | 1-1/2" | 1-1/2" | 2"     | 2"    | 2"     |
|                                   | 功率<br>power                  | kw   | 0.37   | 0.37   | 0.37   | 0.75   | 0.75   | 1.5    | 1.5   | 2.2    |
| 扬程<br>Head                        | 扬程<br>Head                   | m  | 20   | 20     | 20   | 20     | 20     | 20     | 20    | 20     |
|                                   | 安全保护<br>safety protection    |  | 压缩机过热保护，过流保护，高低压力保护，超温保护，流量保护，相序/缺相保护，低液位保护，防冻保护，排气过热保护<br>Compressor overheat protection, overcurrent protection, high and low pressure protection, over temperature protection, flow protection, phase sequence / phase loss protection, low liquid level protection, antifreeze protection, exhaust overheat protection |        |  |        |        |        |       |        |
| 外形尺寸<br>Dimensions                | 长<br>long                    | mm   | 930  | 1140   | 1140   | 1300   | 1530   | 1530   | 1850  | 1950   |
|                                   | 宽<br>width                   | mm   | 520  | 560    | 560  | 720    | 780    | 780    | 990   | 1000   |
|                                   | 高<br>high                    | mm   | 985  | 1050   | 1050   | 1320   | 1140   | 1430   | 1680  | 1950   |
| 整机重量<br>Total Weight              | kg                           | 135  | 175  | 180    | 310  | 450    | 530    | 750    | 890   |        |

以上数据根据以下设计工况得出：

1.冷凝温度40°C

以上规格参数如有变动，恕不另行通知

The above data is based on the following design conditions:

Condensation temperature 40 ° C

The above specifications are subject to change without notice.

ENGINEERING CASE  
工程案例



SHOP EXHIBITION  
车间展示

