产品手册

OUBO AIR CONDITIONING PRODUCT MANUAL

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公司简介

江西浩金欧博空调制造有限公司是一家集研发、生产、销售、服务于一体的国家高新技术大型专业中央空调企业。

作为深圳市暖通净化行业协会会长单位、中国“冷标委”委员单位、中国中央电视台战略合作品牌，欧博空调自2009年品牌创立以来，备受业界关注，产品远销欧美等20多个国家和地区，每年以平均30%的速度递增。

欧博空调以技术创新追求行业领先优势，设立欧博工程技术研发中心，现设计团队共计40余人，2位享受国务院津贴的专家顾问，博士3人，高级工程师35人。参与制冷行业标准制定多项，共计申请发明、实用专利150余项，授权80余项，其中发明专利20余项。投资近3000万依国家标准建成焓差、噪音、振动以及专用医疗洁净实验室。先后成立博士后工作站，江西理工大学产学研基地，院士工作站已同步在审批中，2018年评为“江西省两化深度融合重点示范企业”。

江西工业园占地面积270余亩，拥有8万多平方的现代化生产车间，高精度激光设备、数控设备、AGV以自动焊接设备达100台，现有员工530余人，其中专业人才200多人，先进的设备、标准的生产工艺提供了欧博空调年产3万台套的高质量空调产品。

欧博现有5大系列1000多个品种的优质产品，在医院、净化车间、药厂和电子、烟草、涂装等行业均得到广泛应用。洁净净化空气处理机组、恒温恒湿空调机组拥有“洁净之王”、“恒温恒湿组合风柜非标之王”等赞誉，风冷模块机、满液水冷螺杆机、风冷螺杆主机在市场上已获得客户竞相推荐和用户的充分认可。欧博中央空调将在洁净净化领域持续发力，并将在“全直流变频空调”、“户式中央空调”、“精密恒温恒湿空调”、“磁悬浮离心机”等产品上扩展。

2019年，欧博空调正式开启IPO上市新征程。

欧博中央空调拥有一支“狼性铁军”。凭着对洁净事业的执着追求，欧博人“如狼嚎九天，不改初心；如雄鹰展翅，搏击长空”，坚持“以质量赢取信赖、以合作共创双赢”核心价值观，欧博空调获得了众多世界五百强大客户的青睐并已成为国内知名空调设备工程方首选品牌。

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Company Profile

Jiangxi Haojin Oubo Air Conditioning Manufacturing Co., Ltd., is a large-scale professional central air-conditioning enterprise of national high-tech enterprises integrating R&D, production, sales and service.

As the president unit of Shenzhen HVAC & Cleanroom Association, the member unit of "National Technical Committee 238 on Refrigeration & Air-Conditioning Equipment of Standardization Administration" of China and the strategic cooperation brand of CCTV, Oubo Air Conditioning has attracted much attention from the industry since the establishment in 2009, whose products are exported to more than 20 countries and regions such as Europe and the United States. and increase at an average rate of 30% every year.

Oubo Air Conditioning pursues the industry's leading position with technological innovation and establishes Oubo Engineering Technology R&D Center. The design team now has more than 40 faculty, which include 2 expert consultants who enjoy State Council allowance, 3 doctors and 35 senior engineers. Oubo has participated in the formulation of several refrigeration industry standards, and applied for more than 150 inventions and utility patents, more than 80 authorizations, including more than 20 invention patents. Oubo has invested nearly 30 million to build enthalpy difference, noise, vibration and special medical clean laboratory according to national standards. In addition, a postdoctoral workstation and a production and research base of Jiangxi University of Technology have been successively established. Meanwhile, the academician workstation has been in the process of approval. In 2018, Oubo was awarded as "Key Demonstration Enterprise of Deep Integration of Informatization and Industralization of Jiangxi Province".

Jiangxi Industrial Park covers an area of more than 270 acres, with more than 80,000 square meters of modern production workshops, and up to 100 sets of high-precision laser equipment, CNC equipment and AGV automatic welding equipment. There currently are more than 530 employees, including more than 200 professionals. The advanced equipment and standardized production technology provide Oubo Air Conditioning with an annual output of 30,000 sets of high-quality air-conditioning products.

Oubo has 5 major series of more than 1,000 varieties of high-quality products, which are widely used in hospitals, clean rooms, pharmaceutical factories and electronics, tobacco, painting and other industries. The clean air handling unit and the constant temperature and humidity air conditioning unit have the praises of "King of Clean Air" and "King of Non-standard Constant Temperature and Humidity Combination Air Handling Unit". Air-cooling modular machines, hydraulic filling water-cooling screw compressors, and air-cooling screw compressor main machines have been well received by customers in the market and completely recognized by users. Oubo Central Air Conditioning will continue to make efforts in the field of clean and purification, and will expand the products such as "full DC inverter air conditioner", "household central air conditioner", "precision constant temperature and humidity air conditioner" and "magnetic suspension centrifuge".

In 2019, Oubo Air Conditioning will officially start a new journey for IPO listing.

Oubo Central Air Conditioning has a "mighty iron army". With the persistent pursuit of the clean and purification business, Oubo "remains true to the original aspiration like wolves; makes full efforts like a eagle" and adheres to the core value of "winning trust with quality and achieve win-win with cooperation". Oubo Air Conditioning has won the favor of many customers of world's top 500 enterprises and has become the first choice of well-known air-conditioning equipment for the engineers in China.

We would rather explain the price for a while than apologize for quality for a lifetime. Oubo is your best choice!

发展历程

欧博人经过多年的努力与经验积累，获得了大量的荣誉和证书，每一份荣誉的获得都凝聚着欧博人的信誉和汗水，彰显着欧博的品牌力量！

2009年，成立江西浩金欧博空调制造有限公司。

2010年，是欧博空调与国际接轨的一年。在这一年里，欧博空调获得了许多国际知名商家的认可。8月份，获得由广东省节能中心颁发的水冷螺杆式冷水机组、水冷洁净式恒温恒湿空调机组节能标志产品证书。11月份，通过ISO9001质量管理体系认证并拿到认证证书，还获得了由沃尔玛集团中国区域和富士康集团中国区域分别颁发的《优质供应商》。

2011年浩金欧博商标注册成功并且获得了多项发明专利和实用新型专利证书；2月份，被中国质量协会、全国用户委员会评为《用户满意企业》；6月份获得了由消费者满意评测中心、中国质量信用网颁发的《国家质检合格顾客满意产品》；9月份，获得了由中国质量诚信促进委员会颁发的《AAA级质量诚信会员单位》；12月份，获得了由中国质量标准研究中心、中国品质经济调查研究中心颁发的《中国知名品牌》。

2012年欧博空调在全国各地成立了多家分公司、办事处，网点遍布全国各地；12月份，被深圳市投资商会选为《副会长单位》。

2013年，是欧博空调腾飞的一年，1月份，获得由深圳市创新委员会、深圳市财政委员会颁发的《深圳市高新技术企业证书》并且获得了《国家级高新技术企业证书》。4月份，获得了由广东省博士后管理委员会、广东省人力资源和社会保障厅颁发的《博士后研发基地》；6月份，被广东省涂装行业协会提名为《名誉会长单位》。

2014年—2015年，是欧博空调收获的季节；2月份获得了由深圳市文化进出口行业协会颁发的《副会长单位》，3月份获得了由深圳市电子信息产业联合会颁发的《副会长单位》和由深圳投资商会颁发的《副会长单位》。9月份，赣州河南商会正式成立欧博空调当选为第一届《会长单位》，在第四届中国暖通品牌节上欧博空调被评选为“2014年中国暖通品牌最佳企业成长奖”,10月份，在理事会成员的支持下欧博空调牵头成立深圳暖通净化行业协会，该协会的成立得到了众多企业的加入和各界人士的支持。同时欧博空调在2014年—2015年中连续两届获得全国优秀企业家称号。

2016年是欧博空调高速发展的一年也是欧博空调战略布局的一年；1月份，欧博空调被中国制冷产业联盟评选为“会长单位”，同时欧博空调被评选为“中国民营企业50强”央视CCTV“追梦人”代言人。这一年欧博集团董事长被评选为“第四届全国冷冻空调设备标准化技术委员会SAC/TC238 委员”。

2017年是欧博提高自身的一年。在这一年欧博空调获得了众多领导的关怀，江西省委常委、市委书记李炳军，江西省赣州市市长曾文明等相聚莅临欧博参观考察。同年12月江西欧博空调还获得了“高新技术企业”证书。

2018年欧博空调董事长获得了由暖通协会颁发的“2017暖通风云人物奖”，同年8月欧博空调获得了“中国制冷空调行业CRAA产品认证证书”以及由中国国家标准化管理委员会颁发的“中国能效标识”，CRAA证书和中国能效标识的获得，是欧博品牌的一大飞跃。

“宁肯为价格解释一阵子，也不为质量道歉一辈子。欧博，您无悔的选择！”这是欧博空调自创立起，就一直用来勉励自己的座右铭，我们坚信，在不断完善和不断进步中欧博空调将会走的更好更远。

Development History

After years of hard work and experience accumulation, Oubo has won a lot of honors and certificates. The acquisition of each honor embodies the reputation and sweat of the Oubo people, highlighting the brand power of Oubo!

In 2009, JiangXi Haojin Oubo Air Conditioning Manufacturing Co., Ltd. was established.

In 2010, it was the year in which Oubo Air Conditioning reached the international level . In this year, Oubo Air Conditioning has been recognized by many internationally renowned merchants. In August, Oubo obtained the water-cooling screw water chilling unit, water-cooling clean constant temperature and humidity air conditioning unit energy-saving mark product certificate issued by Guangdong Energy Conservation Center. In November, Oubo passed the IS09001 quality management system certification and also obtained the Quality Suppliers issued by the China Region of Wal-Mart Group and the China Region of Foxconn Group.

In 2011, the Haojin Oubo trademark was successfully registered and obtained a number of invention patents and utility model patent certificates: in February, it was rated as Customer Satisfaction Enterprise by China Quality Association and National User Committee; in June, it was awarded the National Quality Inspection Qualified Customer Satisfaction Product by the Consumer Satisfaction Evaluation Center and China Quality Credit Network; in September, it was awarded the AAA Quality Integrity Member Unit by the China Quality Integrity Promotion Committee; and in December, it won the China Famous Brand issued by China Quality Standards Research Center and China Quality Economics Research and Research Center.

In 2012, Oubo Air Conditioning has established a number of branches and offices throughout the country, with outlets throughout the country; in December, it was selected as the Deputy President Unit by the Shenzhen Investment Chamber of Commerce.

In 2013, In 2013, Oubo Air Conditioning developed rapidly. In January, it was awarded the Shenzhen High-tech Enterprise Certificate by the Shenzhen Innovation Committee and the Shenzhen Municipal Finance Committee and obtained the National High-Tech Enterprise Certificate. In April, it was awarded the Postdoctoral Research and Development Base by the Guangdong Postdoctoral Management Committee and the Guangdong Provincial Department of Human Resources and Social Security. In June, it was nominated as the Honorary President Unit by the Guangdong Coating Industry Association.

From 2014 to 2015, this period is the season of Oubo Air Conditioning harvest; in February, it was awarded the Deputy President Unit by the Shenzhen Cultural Import and Export Industry Association; and in March, the Deputy President Unit issued by Shenzhen Electronic Information Industry Association and the Deputy President Unit issued by Shenzhen Investment Chamber of Commerce were obtained. In September, Henan Chamber Of Commerce in Ganzhou officially established Oubo Air Conditioning, which was elected as the first President Unit, and was selected as the "2014 China HVAC Brand Best Enterprise Growth Award" at the 4th China HVAC Brand Festival. In October, with the support of the members of the board of directors, Oubo Air Conditioning took the lead in establishing the Shenzhen HVAC Purification Industry Association. The establishment of the association was supported by many companies and people from all walks of life. Meanwhile, in the two consecutive years from 2014 to 2015, Oubo Air Conditioning was awarded the title of National Outstanding Entrepreneur.

2016 is the year of the rapid development of Oubo Air Conditioning and the year of the strategic layout of Oubo Air Conditioning; in January, Oubo Air Conditioning was selected as the "President Unit" by the China Refrigeration Industry Alliance, and Oubo Air Conditioning was selected as the "Top 50 Chinese Private Enterprises" CCTV "dream catcher" spokesperson. In this year, the chairman of the Oubo Group was selected as the "member of the Fourth National Refrigeration and Air Conditioning Equipment Standardization Technical Committee SAC/TC238".

In 2017, Oubo Air Conditioning improved itself. In this year, Oubo Air Conditioning received the care of many leaders. Li Bingjun, member of the Standing Committee of the Jiangxi Provincial Party Committee and secretary of the Municipal Party Committee, and Zeng Wenming, the Mayor of Ganzhou City, Jiangxi Province, came together to visit Oubo. In December 2017, Oubo Air Conditioning in Jiangxi also obtained the certificate of "High-tech Enterprise".

In March 2018, the Chairman of Oubo Air Conditioning won the "2017 Warm and Ventilation Cloud Character Award" issued by the Association of HVAC. In August of the same year, Oubo Air Conditioning won the "China CRAA Product Certification Certificate for Refrigeration and Air Conditioning Industry" and the "China Energy Efficiency Label" issued by China National Standardization Administration Committee. The acquisition of the CRAA certificate and the China Energy Efficiency Label embodies a major leap forward for the Oubo brand.

“We would rather explain the price for a while than apologize for quality for a lifetime. Oubo, is your best choice!" This is the motto of Oubo Air Conditioning to encourage itself since its establishment, and we firmly believe that in the continuous perfection and improvement, Oubo Air Conditioning will go better and further.

风机盘管机组
FAN COIL UNIT

一、FP系列风机盘管机组简介
I. Introduction to FP Series Fan Coil Unit

“浩金欧博”牌FP系列产品是适合安装于宾馆、住宅、办公大楼、别墅、广播电台、机场、地铁等水平隐蔽式空间的空调统末端设备、FP系列风机盘管机组是集中国内外同类产品之优点，设计先进。品种齐全、性能优越、质量保证。该产品保留欧博牌一贯的优良设计具备下列特点：

1、品种齐全,有9种型号，适合不同场所的需要。风量从320m³/h~2380m³/h,冷量从1665W至13310W。各种型号均有标准型跟高静压可供选择。

2、机组的名义风量、静压、噪音和性能均优于国标值。

3、具有变负荷性、适应性强、可灵活配置电动阀、温控器等自控系统。

4、外形美观、结构精致、坚固耐用。采用镀锌钢板结构，配置前弯曲叶片离心双吸口式静音金属风机，PSC电机及无需补油轴承，风机经过严格的动静压平衡校正，运转平稳、噪音低、省电及寿命长，正常运转可达10年以上，维护保养方便。

5、盘管采用优质无缝紫铜管及铝质翅片，经机械涨管、二次翻边等严格工艺制成，双面用条缝片型高效管翅片式换热器盘管，产品全部经过2.4MPa压力的严格检漏，质量保证。

6、盘管可轻易拆卸，方便清洁保养。盘管进出水管安装可轻易变更左右方向。机组凝水盘全部为加长型，具有保证所接冷水管路及电动阀无保温处的冷凝水顺利落到水盘中，防止水管凝漏之特点。

7、标准2管路系统采用3排管、4管路系统采用4排盘管（3排供冷和1排供热），可按用户要求灵活配置。

8、FP系列另有回风箱设计可供选择。

"Haojin Oubo" brand FP series products are air conditioning system end equipment and FP series fan coil unit suitable for installation in horizontal concealed spaces such as hotels, residences, office buildings, villas, radio stations, airports, subways, etc. It integrates the advantages of similar products at home and abroad, featured with advanced design, complete variety, excellent performance and quality assurance. This product retains the excellent design of the Oubo brand with the following characteristics:

1. With complete variety and 9 models, suitable for different places. Air volume: 320m3/h-2,380m3/h; cooling capacity: 1,665W-13,310W. Various models are available with standard and high static pressure.

2. The nominal air volume, static pressure, noise and performance of the unit are better than the national standard.

3. It is provided with variable load capacity, strong adaptability, and automatic control systems such as electric valve and thermostat that can be flexibly configured.

4. It is featured with beautiful appearance, exquisite structure, sturdy and durable. It adopts galvanized steel plate structure, and is equipped with a front curved blade centrifugal double suction type silent metal fan, PSC motor and no need for oil bearing. The fan has been processed with strict dynamic and static pressures so that it is featured with stable operation, low noise, power saving and long service life. The normal operation can reach more than 10 years, and the maintenance is convenient.

5. The coil is made of high-quality seamless copper tube and aluminum fin, which is made by strict process such as mechanical tube rise and secondary flange. The double-sided strip-seam type high-efficiency tube-fin heat exchanger coils are all strictly tested under the pressure of 2.4MPa and the quality is guaranteed.

6. The coil pipe can be easily disassembled for easy cleaning and maintenance. The left and right direction for the installation of the coil inlet and outlet pipes can be easily changed. The condensate water trays of the unit are all lengthened type, which ensures that the condensed water in the cold water pipeline and the electric valve without the insulation is smoothly dropped into the water tray to prevent the water pipe from leaking.

7. 3 rows of tubes, and the 4 piping system uses 4 rows of coils (3 rows of cooling and 1 row of heating) that can be flexibly configured according to user requirements are adopted for the standard 2 piping system.

8. For FP series, there is also a return air box design can be selected.

风机盘管机组
FAN COIL UNIT

二、FP系列风机盘管机组型号表示方法
II. Model Representation for FP Series Fan Coil Unit

FP — C — 85 — S — L — P

- P：DC为四管制冷热分离循环型，P为带回箱结构，X为直接膨胀型，EH为电加热型，缺省表示两管制标准机组。
  DC is the four-tube refrigeration heat separation cycle type, P is the return box structure, X is the direct expansion type, and EH is the electrical heating type. Default representation two-pipe system standard unit.
- L：L为左接管，R为右接管。
  L is the left connector and R is the right connector.
- S：S为标准型，机外静压12Pa,H30为高静压型，机外静压30Pa,H50为高静压型，机外静压50Pa。
  S is the standard type, the static pressure outside the unit is 12Pa, H30 is the high static pressure type, the static pressure outside the unit is 30Pa; H50 is the high static pressure type, and the static pressure outside the unit is 50Pa.
- 85：名义风量：数字X10m³h。
  Nominal air volume: figure * 10m3h.
- C：C为吊挂明装型，LA立式暗装型，LM为立式明装型。KZ为卡式风机盘管自排水型，KQ为卡式风机盘管强排水型。缺省表示吊顶暗装机组。
  C is the hanging type, LA is the vertical type, and LM is the vertical type. KZ is the self-draining type of card-mode fan coil, and KQ is the card type fan coil type. Default representation suspended ceiling concealed unit.
- FP：风机盘管系列代号。
  The fan coil pipe series code.

三、订货须知
III. Ordering Notices

1、用户订货须注明型号规格及数量，使用工况及安装要求，同时也应注明进出水配管方向。
2、配管方向：面对风机盘管出风口为基准，配管在左手边即为左机，反之为右机（上图为左机）。
3、本产品有回风箱（分后回风及下回风两种形式）可供选择。
4、本公司另具有电动二通阀及三速关TC系列温控器等温控原件与风机盘管配套使用，可供用户选购，订货时注明即可。
5、本公司还有4管路风离系统用盘管（3排供冷加1排加热）及直接膨胀式盘管可供选购

1. The user's order must indicate the model specification and quantity, the working conditions and installation requirements, as well as the direction of the inlet and outlet piping.
2. Piping direction: Take the direction facing the fan coil outlet as the reference, the unit with pipe on the left hand side is the left unit and vice versa (the left unit is shown above).
3. This product is provided with a return air box (two types of rear return air and lower return air) for selection.
4. The company also has electric two-way valve and three-speed off TC series thermostat and other temperature control components and fan coils for use, so that users can purchase and specify when ordering.
5. The company also has 4 pipeline air separation system coils (3 rows of cooling and 1 row of heating) and direct expansion coils are available for purchase.

机组性能参数表
Table of Performance Parameters of Unit

型号(Model)FP-		34	51	68	85	102	136	170	204	238
额定风量 Rated air volume m^3/h	高档 High gear	340	510	680	850	1020	1360	1700	2040	2380
	中档 Middle gear	270	380	510	640	780	1030	1290	1540	1975
	低档 Low gear	190	280	340	450	560	740	890	1040	1255
供冷量 Cooling capacity W	高档 High gear	2260	3330	4180	5100	6180	8050	9580	11460	13310
	中档 Middle gear	1915	3160	3740	4340	5400	6810	8710	10200	11600
	低档 Low gear	1665	2290	2875	3245	4255	5760	6325	8920	9200
供热量W Heating capacity W	高档 High gear	3620	5150	6500	7895	9370	12550	15300	17300	20600
风机 Fan	形式 type	前曲多翼镀锌钢板离心式双吸风机 Front curved multi-wing galvanized steel plate centrifugal double suction fan								
	数量 Nos.	1	1	2	2	2	2	3	4	4
电机 Motor	形式 type	单相电容运转式电机 Single-phase capacitor running motor								
	绝缘等级 Insulation level	B								
	电源 Power supply	220V/1~50Hz								
	数量 Nos.	1	1	1	1	1	1	2	2	2
高档输入功率 High gear Input power W	低静压（12Pa) Low static pressure (12Pa)	37	52	62	76	96	134	152	189	228
	30Pa静压 30Pa static pressure	44	59	72	87	108	156	174	212	253
	50Pa静压 50Pa static pressure	49	66	84	100	118	174	210	250	300
换热器 Heat exchanger	结构形式 Structural form	铜管串套高效翻边铝翅片，胀紧成一体 High effective copper pipes covered into aluminum fins, swelling integral								
	工作压力MPa Working pressure (MPa)	1.6								
	进出水管管径 Inlet and outlet pipe diameter	Rc3/4(锥管内螺纹 Taper pipe internal thread)								
	水量Kg/h Water volume Kg/h	391	576	716	853	1069	1375	1657	1983	2303
	水阻力KPa Water resistance KPa	8	10	12	13	14	16	18	22	32
高档噪声 High-grade noise dB(A)	低静压（12Pa) Low static pressure (12Pa)	36	36	40	42	44	44	47	49	51
	30Pa静压 30Pa static pressure	39	41	43	45	46	47	49	51	53
	50Pa静压 50 Pa static pressure	41	43	45	47	48	50	52	53	54
凝结水管 Condensate water pipe		Rc3/4(锥管内螺纹 Taper pipe internal thread)								

注：
1、供冷：供回水温度7/12℃回风工况：进风干球温度27℃,湿球温度19.5℃;
2、供热：供水温度60℃;回风状况：进风干球温度21℃;
3、表中风量为机组在干态运行状态，干球温度20℃时测得。
4、表中噪声为机组在背景噪声为11.5dB(A) 的半消声室内测得。
5、规格参数因产品改良而更改，恕不另行通知，请以机组铭牌为准。

Note:
1. Cooling: supply and return water temperature is 7/12 °C; return air condition: inlet air dry bulb temperature is 27 °C, and wet bulb temperature is 19.5 °C;
2. Heating: water supply temperature is 60 °C; return air condition: inlet air dry bulb temperature is 21 °C;
3. The air volume in the table is measured in the dry state of the unit and the dry bulb temperature is 20 °C;
4. The noise in the table is measured in the semi-anechoic chamber with a background noise of 11.5dB(A);
5. Specifications are subject to change for the product improvement without prior notice and to the nameplate of the unit.

制冷性能变化表
Refrigeration Performance Change Table

型号 FP-	进水温度 ℃	水流量 kg/h	水阻力 kpa	进风温度 Db24℃ WB17℃			Db25℃ WB18℃			Db26℃ WB19℃			Db27℃ WB19.5℃			Db27℃ WB20℃			Db28℃ WB21℃		
				全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)
34	5	131	1.6	1000	953	11.6	1057	1014	11.9	1145	1113	12.5	1198	1163	12.9	1218	1157	13.0	1333	1239	13.7
		267	5.4	1652	1471	10.3	1856	1614	11.0	2031	1665	11.5	2130	1693	11.8	2213	1726	12.1	2397	1821	12.7
		391	10.0	2007	1546	9.5	2185	1661	9.9	2369	1729	10.3	2495	1721	10.5	2593	1763	10.8	2814	1885	11.2
		527	15.8	2193	1601	8.6	2368	1075	8.9	2547	1783	9.1	2782	1864	9.5	2903	1916	9.7	3076	2000	10.0
	6	131	1.7	982	982	12.4	1055	1031	12.9	1100	1065	13.2	1159	1148	13.6	1169	1123	13.7	1271	1194	14.3
		267	5.3	1559	1403	11.0	1767	1555	11.7	1918	1592	12.2	1975	1600	12.3	2071	1657	12.7	2279	1778	13.3
		391	10.0	1826	1425	10.1	2055	1582	10.6	2235	1069	11.0	2358	1662	11.2	2456	1707	11.5	2672	1844	11.9
		527	15.8	1950	1463	9.2	2251	1463	9.7	2480	1761	10.0	2535	1724	10.1	2654	1792	10.3	2895	1954	10.7
	7	131	1.7	941	941	13.2	995	995	13.5	1056	1022	13.9	1116	1096	14.3	1145	1111	14.5	1204	1144	14.9
		267	5.3	1438	1309	11.6	1615	1437	12.2	1766	1483	12.7	1853	1538	13.0	1946	1576	13.3	2124	1678	13.8
		391	10.0	1701	1344	10.8	1875	1463	11.2	2098	1531	11.7	2260	1620	12.0	2315	1632	12.1	2498	1749	12.5
		527	15.8	1864	1403	10.0	2008	1486	10.3	2312	1665	10.8	2364	1643	10.8	2490	1718	11.1	2723	1865	11.4
	8	131	1.7	898	898	13.9	954	954	14.3	1026	1008	14.7	1081	1055	15.1	1128	1099	15.4	1173	1126	15.7
		267	5.3	1286	1184	12.1	1465	1319	12.7	1650	1403	13.3	1736	1458	13.6	1860	1544	14.0	2030	1634	14.5
		391	10.0	1523	1219	11.4	1740	1375	11.9	1914	1416	12.2	2090	1526	12.6	2231	1651	13.0	2366	1703	13.3
		527	15.8	1654	1290	10.7	1828	1389	11.0	2070	1511	11.4	2241	1591	11.6	2428	1724	12.0	2537	1776	12.1
	9	131	1.7	806	806	14.3	911	911	15.0	979	979	15.4	1058	1035	15.9	1084	1054	16.1	1131	1086	16.4
		267	5.3	1234	1160	13.0	1350	1229	13.3	1557	1339	14.0	1618	1375	14.2	1737	1459	14.6	1858	1533	15.0
		391	10.0	1478	1226	12.3	1564	1298	12.5	1823	1386	13.0	1921	1441	13.3	2006	1525	13.5	2279	1686	14.1
		527	15.8	1538	1231	11.5	1715	1355	11.8	1947	1460	12.2	2067	1488	12.4	2241	1613	12.6	2421	1731	12.9
51	5	184	4.0	1492	1492	12.0	1577	1577	12.4	1697	1697	12.9	1775	1722	13.3	1802	1711	13.4	1962	1825	14.2
		367	12.7	2546	2266	10.9	2772	2412	11.5	2989	2451	12.0	3151	2505	12.4	3290	2566	12.7	3535	2686	13.3
		576	25.0	2970	2287	9.7	3286	2498	10.2	3594	2624	10.7	3745	2584	10.9	3866	2629	11.1	4179	2800	11.6
		729	40.0	3287	2400	8.9	3545	2552	9.2	3893	2725	9.6	4075	2730	9.8	4241	2799	10.0	4597	2988	10.4
	6	184	4.0	1476	1776	12.9	1550	1550	13.2	1635	1635	13.6	1716	1699	14.0	1715	1646	14.0	1881	1768	14.8
		367	12.7	2366	2129	11.5	2568	2260	12.0	2817	2338	12.6	2947	2387	12.9	3081	2465	13.2	3377	2634	13.9
		576	25.0	2767	2158	10.4	3027	2331	10.8	3346	2409	11.3	3541	2497	11.6	3671	2551	11.8	3990	2753	12.3
		729	40.0	3022	2266	9.6	3384	2470	10.0	2630	2577	10.3	3801	2585	10.5	3975	2683	10.7	4334	2925	11.1
	7	184	4.0	1391	1391	13.5	1492	1492	14	1574	1574	14.4	1695	1659	14.7	1653	1603	14.7	1776	1687	15.3
		367	12.7	2153	1959	12.0	2396	2133	12.6	2652	2228	13.2	2780	2307	13.5	2897	2347	13.8	3151	2490	14.4
		576	25.0	2584	2041	11.1	2831	2209	11.5	3148	2298	11.9	3330	2285	12.0	3475	2450	12.5	3726	2608	12.9
		729	40.0	2774	2108	10.3	3116	2306	10.7	3461	2492	11.1	3634	2526	11.3	3731	2575	11.4	4149	2824	11.9
	8	184	4.0	1349	1349	14.3	1430	1430	14.7	1515	1515	15.1	1592	1592	15.4	1591	1591	15.4	1699	1631	15.9
		367	12.7	1980	1821	12.6	2232	2009	13.2	2448	2081	13.7	2613	2195	14.1	2696	2238	14.3	2985	2403	15.0
		576	25.0	2321	1857	11.6	2644	2089	12.2	2899	2145	12.6	3086	2253	12.9	3227	2388	13.1	3538	2548	13.6
		729	40.0	2516	1963	11.0	2855	2170	11.4	3203	2338	11.8	3365	2389	12.0	3554	2523	12.2	3899	2729	12.6
	9	184	4.0	1255	1255	14.9	1344	1344	15.3	1446	1446	15.8	1536	1536	16.2	1529	1529	16.1	1611	1547	16.5
		367	12.7	1771	1664	13.1	2020	1838	13.7	2277	1958	14.3	2393	2034	14.6	2520	2117	14.9	2778	2292	15.5
		576	25.0	2139	1775	12.4	2381	1976	12.7	2702	2054	13.2	2837	2128	13.5	2968	2255	13.7	3342	2473	14.3
		729	40.0	2251	1801	11.6	2595	2050	12.1	2702	2209	12.5	3116	2244	12.7	3297	2374	12.9	3643	2605	13.3

注Note:
1. 型号Model; 2.进水温度Water inlet temperature; 3.水流量Water flow rate; 4.水阻力Water resistance;
5.进风温度Inlet air temperature; 6.全冷Full cooling; 7.显冷Sensible cooling; 8.出水温度Water outlet temperature.

风机盘管机组 Fan Coil Unit

制冷性能变化表 Refrigeration Performance Change Table

型号 FP-	进水温度 ℃	水流量 kg/h	水阻力 kpa	进风温度 Db24℃ WB17℃			Db25℃ WB18℃			Db26℃ WB19℃			Db27℃ WB19.5℃			Db27℃ WB20℃			Db28℃ WB21℃		
				全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)
68	5	231	3.5	1869	1869	11.9	1983	1983	12.3	2109	2109	12.8	2220	2153	13.2	2303	2188	13.5	2484	2301	14.2
		463	11.1	3143	2797	10.8	3470	3019	11.4	3726	3055	11.9	3951	3141	12.3	4131	3222	12.7	4496	3417	13.3
		716	18.0	3723	2867	9.6	4040	3071	10.0	4467	3261	10.5	4606	3178	10.7	4940	3359	11.1	5353	3587	11.6
		925	30.0	4005	2923	8.7	4426	3187	9.1	4865	3405	9.5	5087	3408	9.7	5432	3585	10.0	5880	3822	10.4
	6	231	3.5	1819	1819	12.7	1923	1923	13.1	2054	2054	13.6	2164	2142	14.0	2198	2110	14.1	2388	2245	14.8
		463	11.1	2916	2625	11.4	3249	2859	12.0	3513	2916	12.5	3672	2974	12.8	3908	3126	13.2	4286	3343	13.9
		716	18.0	3479	2714	10.3	3787	2916	10.7	4206	3029	11.2	4368	3080	11.4	4608	3202	11.7	5033	3473	12.2
		925	30.0	3754	2815	9.5	4092	2987	9.8	4547	3228	10.2	4755	3233	10.4	5080	3429	10.7	5524	3728	11.1
	7	231	3.5	1741	1741	13.4	1868	1868	13.9	1980	1980	14.3	2088	2088	14.7	2109	2045	14.8	2276	2163	15.4
		463	11.1	2704	2461	12.0	2976	2648	12.5	3289	2763	13.1	3462	2874	13.4	3692	2990	13.8	4000	3160	14.4
		716	18.0	3139	2480	10.9	3545	2765	11.4	3867	2823	11.8	4180	2920	12.0	4367	3079	12.4	4788	3352	12.9
		925	30.0	3449	2621	10.2	3774	2793	10.5	4205	3207	10.9	4417	3069	11.1	4747	3275	11.4	5190	3555	11.8
	8	231	3.5	1687	1687	14.2	1783	1783	14.6	1901	1901	15.0	2004	2004	15.4	2030	2030	15.5	2137	2052	15.9
		463	11.1	2426	2232	12.5	2755	2480	13.1	3082	2619	13.7	3248	2728	14.0	3458	2870	14.4	3801	3060	15.0
		716	18.0	2901	2321	11.6	3219	2543	12.0	3623	2681	12.5	3792	2768	12.7	4114	3045	13.1	4445	3200	13.5
		925	30.0	3110	2426	10.9	3548	2696	11.3	3865	2822	11.6	4094	2907	11.8	4436	3149	12.1	4871	3410	12.5
	9	231	3.5	1602	1602	14.9	1710	1710	15.3	1816	1816	15.7	1918	1918	16.1	1950	1950	16.2	2056	1974	16.6
		463	11.1	2262	2126	13.2	2522	2295	13.7	2801	2409	14.2	2974	2528	14.5	3189	2678	14.9	3510	2896	15.5
		716	18.0	2647	2197	12.3	2967	2463	12.7	3292	2502	13.1	3556	2667	13.4	3800	2888	13.7	4218	3122	14.2
		925	30.0	2780	2224	11.6	3206	2532	12.0	3642	2731	12.4	3864	2782	12.6	4095	2949	12.8	4538	3245	13.2
85	5	283	3.5	2259	2259	11.8	2392	2392	12.3	2545	2545	12.7	2675	2595	13.1	2739	2602	13.3	2967	2759	14.0
		566	11.0	3799	3381	10.8	4193	3648	11.4	4504	3693	11.8	4772	3794	12.2	4901	3823	12.4	5360	4074	13.1
		853	21.0	4535	3492	9.6	4921	3740	10.0	5414	3952	10.5	5608	3870	10.7	5891	4006	111.0	6384	4277	11.5
		1126	33.3	4908	3583	8.7	5391	3881	9.1	5945	4162	9.5	6176	4138	9.7	6465	4267	9.9	6973	4532	10.3
	6	283	3.5	2198	2198	12.7	2318	2318	13.0	2480	2480	13.5	2613	2587	13.9	2605	2500	13.9	2842	2672	14.6
		566	11.0	3549	3194	11.4	3934	3462	12.0	4254	3531	12.4	4460	3613	12.8	4653	3722	13.1	5094	3973	13.7
		853	21.0	4230	3299	10.3	4615	3553	10.7	5098	3671	11.2	5295	3733	11.4	5495	3819	11.6	6001	4141	12.1
		1126	33.3	4647	3485	9.5	4998	3648	9.8	5542	3935	10.2	5794	3940	10.4	6077	4102	10.6	6590	4449	11.0
	7	283	3.5	2099	2099	13.4	2253	2253	13.8	2381	2381	14.2	2510	2510	14.6	2522	2447	14.6	2713	2577	15.2
		566	11.0	3283	2987	12.0	3606	3209	12.5	3990	3352	13.0	4198	3484	13.4	4388	3554	13.6	4772	3770	14.2
		853	21.0	3851	3042	10.9	4317	3367	11.4	4700	3431	11.8	5100	3535	12.0	5189	3658	12.3	5704	3993	12.8
		1126	33.3	4251	3230	10.2	4601	3405	10.5	5125	3690	10.9	5390	3740	11.1	5677	3917	11.3	6180	4233	11.7
	8	283	3.5	2035	2035	14.2	2165	2165	14.6	2293	2293	14.9	2424	2424	15.3	2418	2418	15.3	2545	2443	15.7
		566	11.0	2966	2728	12.5	3335	3002	13.1	3736	3176	13.7	3914	3288	13.9	4122	3421	14.2	4509	3630	14.8
		853	21.0	3552	2842	11.6	3932	3106	12.0	4409	3263	12.5	4604	3361	12.7	4921	3641	13.0	5290	3809	13.4
		1126	33.3	3850	3003	10.9	4342	3300	11.3	4747	3465	11.6	4996	3547	11.8	5264	3737	12.0	5796	4057	12.4
	9	283	3.5	1942	1942	14.9	2064	2064	15.3	2190	2190	15.6	2328	2328	16.1	2321	2321	16.0	2448	2350	16.4
		566	11.0	2757	2591	13.2	3082	2805	13.7	3411	2934	14.2	3607	3066	14.5	3797	3190	14.8	4192	3458	15.4
		853	21.0	3137	2604	12.2	3631	3014	12.7	4019	3054	13.1	4320	3240	13.4	4528	3441	13.6	5006	3705	14.1
		1126	33.3	3575	2860	11.7	3957	3126	12.0	4470	3353	12.4	4612	3320	12.5	4888	3519	12.7	5394	3857	13.1

注Note:

1. 型号Model; 2.进水温度Water inlet temperature; 3.水流量Water flow rate; 4.水阻力Water resistance;
5.进风温度Inlet air temperature; 6.全冷Full cooling; 7.显冷Sensible cooling; 8.出水温度Water outlet temperature.

制冷性能变化表 Refrigeration Performance Change Table

型号 FP-	进水温度 ℃	水流量 kg/h	水阻力 kpa	进风温度 Db24℃ WB17℃			Db25℃ WB18℃			Db26℃ WB19℃			Db27℃ WB19.5℃			Db27℃ WB20℃			Db28℃ WB21℃		
				全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)	全冷(W)	显冷(W)	出水温度(℃)
102	5	331	4.0	2491	2491	11.4	2623	2623	11.8	2806	2806	12.3	2945	2856	12.6	3014	2863	12.8	3272	3043	13.5
		668	12.6	4115	3663	10.3	4553	3961	10.8	4989	4091	11.4	5211	4143	11.7	5418	4226	12.0	5855	4450	12.5
		1069	30.0	4943	3717	9.2	5426	3846	9.7	5961	3993	10.1	6231	4193	10.3	6493	4123	10.6	7056	4255	11.1
		1336	37.9	5249	3832	8.4	5833	4200	8.7	6415	4490	9.1	6718	4501	9.3	6994	4616	9.5	7575	4924	9.9
	6	331	4.0	2422	2422	12.3	2545	2545	12.6	2725	2725	13.1	2872	2843	13.4	2880	2765	13.5	3117	2930	14.1
		668	12.6	3822	3440	10.9	4266	3754	11.5	4689	3892	12.0	4928	3992	12.3	5124	4099	12.6	5586	4357	13.2
		1069	30.0	4600	3578	9.9	5101	3719	10.4	5610	3853	10.8	5888	4057	11.1	6161	3992	11.3	6703	4123	11.7
		1336	37.9	4831	3624	9.1	5375	3924	9.4	5959	4231	9.8	6265	4260	10.0	6574	4438	10.2	7151	4827	10.6
	7	331	4.0	2296	2296	12.9	2435	2435	13.3	2624	2624	13.8	2761	2761	14.1	2759	2676	14.1	2978	2829	14.7
		668	12.6	3536	3218	11.5	3954	3519	12.1	4317	3626	12.5	4610	3826	12.9	4768	3862	13.1	5286	4176	13.8
		1069	30.0	4441	3627	10.8	5029	3867	11.3	5544	3902	11.8	6180	4190	12.0	6200	4041	12.2	6528	4271	12.6
		1336	37.9	4389	3335	9.8	4963	3673	10.2	5532	3983	10.5	6200	4053	10.7	6225	4226	10.9	6683	4578	11.3
	8	331	4.0	2203	2203	13.7	2337	2337	14.0	2510	2510	14.5	2651	2651	14.9	2653	2653	14.9	2808	2696	15.3
		668	12.6	3251	2991	12.2	3606	3245	12.6	4038	3433	13.2	4262	3580	13.5	4488	3725	13.8	4919	3960	14.3
		1069	30.0	3858	3260	11.3	4348	3405	11.7	4858	3541	12.2	5123	3740	12.4	5368	3672	12.6	5934	3809	13.1
		1336	37.9	4074	3178	10.6	4515	3430	10.9	5112	3732	11.3	5376	3817	11.4	5689	4039	11.7	6268	4388	12.0
	9	331	4.0	2087	2087	14.4	2221	2221	14.7	2364	2364	15.1	2548	2548	15.6	2542	2542	15.6	2687	2579	16.0
		668	12.6	2938	2762	12.8	3296	2999	13.2	3739	3216	13.8	3969	3374	14.1	4117	3458	14.3	4629	3819	14.9
		1069	30.0	3454	3096	12.0	3956	3244	12.4	4465	3386	12.8	4752	3586	13.1	4986	3521	13.3	5624	3656	13.8
		1336	37.9	3661	2929	11.3	4072	3216	11.6	4654	3491	12.0	4959	3570	12.2	5245	3777	12.4	5836	4173	12.7
136	5	700	5.2	5550	5550	11.8	5847	5847	12.2	6330	6330	12.8	6645	6445	13.1	6717	6381	13.2	7301	6970	13.9
		929	15.8	6294	5602	10.8	6840	5951	11.3	7460	6117	11.9	7818	6215	12.2	8097	6316	12.5	8786	6677	13.1
		1375	30.0	7330	5644	9.5	8122	6173	10.0	8933	6521	10.5	9242	6377	10.7	9600	6528	10.9	10373	6950	11.4
		1858	40.9	8032	5863	8.7	8853	6374	9.1	9517	6662	9.4	9948	6665	9.6	10375	6848	9.8	11510	7481	10.3
	6	700	5.2	5462	5462	12.7	5769	5769	13.1	6092	6092	13.5	6399	6335	13.8	6421	6164	13.9	6951	6534	14.5
		929	15.8	5867	5281	11.4	6387	5621	11.9	7055	5855	12.5	7358	5960	12.8	7705	6164	13.1	8337	6503	13.7
		1375	30.0	6850	5343	10.2	7472	5753	10.6	8270	5954	11.1	8744	6165	11.4	9105	6328	11.6	9931	6852	12.1
		1858	40.9	7393	5544	9.4	8228	6006	9.8	9101	6462	10.2	9555	6498	10.4	9964	6725	10.6	10852	7352	11.0
	7	700	5.2	5184	5184	13.3	5505	5505	13.7	5821	5821	14.1	6164	6164	14.5	6158	5973	14.5	6633	6302	15.1
		929	15.8	5311	4833	11.9	5958	5302	12.5	6587	5533	13.1	6935	5756	13.4	7140	5784	13.6	7892	6234	14.3
		1375	30.0	6345	5012	10.9	7003	5462	11.3	7808	5700	11.8	8050	5840	12.0	8598	6062	12.3	9253	6477	12.7
		1858	40.9	6956	5287	10.2	7583	5611	10.5	8426	6067	10.9	8280	6182	11.1	9289	6409	11.3	10168	6965	11.7
	8	700	5.2	4962	4962	14.1	5272	5272	14.5	5584	5584	14.8	5905	5905	15.2	5930	5930	15.3	6336	6082	15.8
		929	15.8	4894	4503	12.5	5516	4965	13.1	6081	5169	13.6	6386	5364	13.9	6711	5570	14.2	7379	5940	14.8
		1375	30.0	5701	4561	11.5	6481	5120	12.0	7144	5287	12.4	7619	5562	12.7	7944	5878	12.9	8749	6299	13.4
		1858	40.9	6288	4905	10.9	6936	5271	11.2	7777	5677	11.6	8222	5838	11.8	8666	6153	12.0	9536	6675	12.4
	9	700	5.2	4729	4729	14.8	5017	5017	15.1	5337	5337	15.5	5759	5759	16.1	5739	5739	16.0	6077	5834	16.4
		929	15.8	4447	4180	13.1	4995	4546	13.6	5636	4847	14.2	5957	5063	15.5	6268	5265	14.8	6942	5727	15.4
		1375	30.0	5039	4183	12.1	5839	4847	12.6	6663	5064	13.1	6972	5229	13.3	7329	5570	13.5	8106	5999	14.0
		1858	40.9	5672	4538	11.6	6298	4975	11.9	7129	5347	12.3	7558	5442	12.5	8028	5780	12.7	8900	6363	13.1

注Note:

1. 型号Model; 2.进水温度Water inlet temperature; 3.水流量Water flow rate; 4.水阻力Water resistance;
5.进风温度Inlet air temperature; 6.全冷Full cooling; 7.显冷Sensible cooling; 8.出水温度Water outlet temperature.

制冷性能变化表 Refrigeration Performance Change Table

型号 FP-	进水温度 ℃	水流量 kg/h	水阻力 kpa	进风温度 Db24℃ WB17℃			Db25℃ WB18℃			Db26℃ WB19℃			Db27℃ WB19.5℃			Db27℃ WB20℃			Db28℃ WB21℃		
				全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)
170	5	535	7.4	4066	4066	11.5	4313	4313	11.9	4606	4606	12.4	4830	4685	12.7	4956	4708	12.9	5372	4996	13.6
		1069	22.9	6820	6070	10.5	7538	6558	11	8150	6683	11.5	8649	6876	11.9	8861	6911	12.1	9707	7377	12.8
		1657	39	7806	5924	9.2	8588	6140	9.6	9410	6366	10.1	9827	6675	10.3	10238	6561	10.5	11138	6767	11
		2128	61.3	8836	6450	8.6	9725	7002	8.9	10650	7455	9.3	11161	7478	9.5	11628	7675	9.7	12615	8200	10.1
	6	535	7.4	3979	3979	12.4	4252	4252	12.8	4477	4477	13.2	4735	4688	13.6	4716	4527	13.6	5129	4821	14.2
		1069	22.9	6339	5705	11.1	7066	6218	11.7	7676	6371	12.2	8048	6519	12.4	8403	6723	12.7	9215	7188	13.4
		1657	39	7251	5677	9.9	7991	5883	10.3	8824	6109	10.7	9256	6428	11	9667	6315	11.2	10521	6510	11.7
		2128	61.3	8052	6039	9.2	9016	6581	9.6	9948	7063	10	10424	7088	10.2	10899	7357	10.4	11904	8036	10.8
	7	535	7.4	3864	3864	13.2	4082	4082	13.5	4308	4308	13.9	4559	4559	14.3	4557	4420	14.3	4913	4667	14.9
		1069	22.9	5880	5351	11.7	6484	5771	12.2	7173	6026	12.7	7532	6251	13	7888	6389	13.3	8653	6836	13.9
		1657	39	6942	5626	10.7	7724	5852	11.2	8423	6119	11.5	9580	6695	12	9680	6387	12.1	10130	6500	12.4
		2128	61.3	7354	5589	10	8289	6134	10.3	9280	6681	10.7	9747	6774	10.9	10178	7023	11.1	11169	7651	11.5
	8	535	7.4	3664	3664	13.9	3892	3892	14.2	4145	4145	14.6	4373	4373	15	4368	4368	15	4613	4429	15.4
		1069	22.9	5288	4865	12.2	6009	5408	12.8	6693	5689	13.4	7090	5956	13.7	7413	6153	13.9	8150	6560	14.5
		1657	39	6047	5173	11.3	6819	5399	11.7	7621	5615	12.1	8022	5924	12.3	8444	5821	12.5	9328	5831	13
		2128	61.3	6898	5381	10.8	7582	5762	11.1	8526	6224	11.4	9040	6419	11.6	9477	6729	11.8	10450	7315	12.2
	9	535	7.4	3428	3428	14.5	3718	3718	15	3959	3959	15.3	4205	4205	15.7	4190	4190	15.7	4425	4248	16.1
		1069	22.9	4943	4646	13	5518	5021	13.4	6100	5246	13.9	6480	5508	14.2	6826	5734	14.5	7540	6220	15
		1657	39	5430	4926	11.9	6202	5142	12.3	7004	5368	12.8	7415	5687	13	7796	5574	13.2	8680	5790	13.7
		2128	61.3	6211	4969	11.5	6892	5444	11.8	7824	5868	12.2	8314	5986	12.3	8776	6319	12.5	9758	6977	12.9
204	5	678	4.7	5232	5232	11.6	5526	5526	12	5967	5967	12.5	6274	6086	12.9	6340	6023	13	6985	6496	13.8
		1356	14.4	8768	7804	10.5	9675	8417	11.1	10574	8671	11.7	11072	8802	12	11528	8992	12.3	12492	9494	12.9
		1983	28	9731	7363	9.1	10704	7623	9.5	11699	7893	10	12263	8304	10.2	12791	8174	10.4	13850	8412	10.9
		2701	43.8	11294	8245	8.6	12195	8781	8.9	13400	9380	9.3	14020	9393	9.4	14657	9674	9.7	15881	10323	10
	6	678	4.7	5154	5154	12.5	5450	5450	12.9	5739	5739	13.3	6058	5998	13.7	6045	5804	13.6	6666	6266	14.4
		1356	14.4	8143	7329	11.1	9040	7956	11.7	9969	8274	12.3	10434	8452	12.6	10904	8723	12.9	11857	9248	13.5
		1983	28	9007	7050	9.8	9990	7352	10.2	10996	7590	10.7	11569	7979	10.9	12099	7871	11.1	13137	8109	11.6
		2701	43.8	10323	7742	9.3	11555	8436	9.7	12463	8849	10	13106	8912	10.2	13694	9244	10.3	15272	10309	10.8
	7	678	4.7	4927	4927	13.2	5198	5198	13.6	5531	5531	14	5831	5831	14.4	5830	5655	14.4	6291	5977	15
		1356	14.4	7531	6853	11.8	8419	7493	12.3	9366	7867	12.9	9798	8132	13.2	10133	8207	13.4	11195	8844	14.1
		1983	28	8271	6736	10.5	9244	7006	10.9	10272	7266	11.4	11460	8480	12	11670	7547	11.8	12434	7817	12.3
		2701	43.8	9430	7167	10	10602	7846	10.4	11861	8540	10.8	12482	8675	11	13135	9063	11.2	14356	9834	11.6
	8	678	4.7	4691	4691	13.9	4969	4969	14.3	5295	5295	14.7	5609	5609	15.1	5677	5677	15.2	5986	5746	15.6
		1356	14.4	6894	6342	12.4	7617	6855	12.8	8554	7271	13.4	9053	7605	13.7	9507	7891	14	10457	8418	14.6
		1983	28	8055	6866	11.4	7617	7028	11.8	10151	7460	12.3	11807	8501	13	10347	7514	12.4	12218	7925	13.2
		2701	43.8	8471	6607	10.7	9687	7362	11.1	10904	7960	11.5	11553	8203	11.7	12156	8630	11.9	13386	9370	12.2
	9	678	4.7	4451	4451	14.6	4743	4743	15	5062	5062	15.4	5452	5452	15.9	5448	5448	15.9	5754	5524	16.3
		1356	14.4	6237	5863	12.9	6998	6369	13.4	7954	6841	14	8403	7143	14.3	8879	7458	14.6	9836	8115	15.2
		1983	28	6758	7244	11.9	7731	6390	12.3	8725	6660	12.7	9234	7060	12.9	9753	6941	13.1	10812	7190	13.6
		2701	43.8	7816	6253	11.5	8755	6916	11.8	10009	7507	12.2	10584	7620	12.4	11203	8066	12.6	12502	8939	13

注Note:

1. 型号Model; 2.进水温度Water inlet temperature; 3.水流量Water flow rate; 4.水阻力Water resistance;

5.进风温度Inlet air temperature; 6.全冷Full cooling; 7.显冷Sensible cooling; 8.出水温度Water outlet temperature.

制冷性能变化表 Refrigeration Performance Change Table

型号 FP-	进水温度 ℃	水流量 kg/h	水阻力 kpa	进风温度 Db24℃ WB17℃			Db25℃ WB18℃			Db26℃ WB19℃			Db27℃ WB19.5℃			Db27℃ WB20℃			Db28℃ WB21℃		
				全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)	全冷 (W)	显冷 (W)	出水温度 (℃)
238	5	745	8.5	5975	5975	11.9	6223	6223	12.2	6755	6755	12.8	7104	6891	13.2	7179	6820	13.3	7799	7253	14
		1490	25.3	9964	8868	10.7	10928	9507	11.3	12009	9847	11.9	12545	9973	12.2	13007	10145	12.5	14075	10697	13.1
		2303	49	11715	9021	9.5	12721	9668	9.9	14027	10240	10.4	14821	10227	10.7	15358	10443	10.9	16615	11132	11.4
		2980	70.1	12544	9157	8.6	14001	10081	9	15394	10776	9.4	16060	10760	9.6	16728	11040	9.8	18094	11761	10.2
	6	745	8.5	5789	5789	12.7	6138	6138	13.1	6475	6475	13.5	6819	6750	13.8	6826	6553	13.9	7462	7014	14.6
		1490	25.3	9226	8303	11.3	10280	9047	11.9	11296	9376	12.5	11844	9594	12.8	12168	9735	13	13376	10433	13.7
		2303	49	10958	8547	10.2	11999	9239	10.6	13283	9564	11.1	13799	9728	11.3	14594	10143	11.6	15876	10954	12.1
		2980	70.1	11921	8941	9.4	13284	9698	9.8	14313	10162	10.1	15033	10222	10.3	15659	10570	10.5	17051	11509	10.9
	7	745	8.5	5550	5550	13.4	5860	5860	13.7	6224	6224	14.2	6569	6569	14.6	6550	6354	14.5	7072	6719	15.1
		1490	25.3	8526	7759	11.9	9543	8493	12.5	10450	8778	13	10932	9074	13.3	11466	9287	13.6	12542	9908	14.2
		2303	49	9953	7863	10.8	11164	8708	11.3	12227	8925	11.7	13310	9360	12	13548	9551	12.2	14834	10384	12.7
		2980	70.1	10840	8239	10.1	12251	9066	10.5	13636	9818	10.9	14267	9916	11.1	14631	10096	11.2	16444	11264	11.7
	8	745	8.5	5243	5243	14	5590	5590	14.4	6025	6025	14.9	6393	6393	15.4	6385	6385	15.3	6732	6462	15.7
		1490	25.3	7670	7057	12.4	8713	7842	13	9735	8275	13.6	10233	8596	13.9	10809	8971	14.2	11858	9546	14.8
		2303	49	9142	7313	11.5	10151	8019	11.9	11430	8458	12.4	11965	8734	12.6	12781	9458	12.9	14069	10130	13.4
		2980	70.1	9812	7653	10.8	11135	8463	11.2	12565	9172	11.6	13224	9389	11.8	13931	9891	12	15394	10776	12.4
	9	745	8.5	5014	5014	14.8	5355	5355	15.2	5677	5677	15.5	6134	6134	16.1	6111	6111	16	6460	6201	16.4
		1490	25.3	7137	6709	13.1	7999	7279	13.6	9058	7790	14.2	9371	7965	14.4	9915	8329	14.7	10973	9053	15.3
		2303	49	8085	6711	12.1	9345	7756	12.6	10387	7894	13	11196	8397	13.3	11698	8890	13.5	12992	9614	14
		2980	70.1	8769	7015	11.5	10134	8006	11.9	11534	8651	12.3	12196	8781	12.5	12906	9293	12.7	14289	10216	13.1

注Note:

1. 型号Model; 2.进水温度Water inlet temperature; 3.水流量Water flow rate; 4.水阻力Water resistance;

5.进风温度Inlet air temperature; 6.全冷Full cooling; 7.显冷Sensible cooling; 8.出水温度Water outlet temperature.

上表中制冷量为高档风量时参数，中低档风量时制冷量为上表中参数乘以上修正系数。

In the above table, the cooling capacity is the parameter of the high-grade air volume, and the refrigerating capacity in the middle and low grades is the parameter multiplied by the above correction factors.

中低档制冷能力修正系数 Correction Factors of the Middle and Low-Grades Cooling Capacity

型号 FP- Model FP-		34	51	68	85	102	136	170	204	238
中速 Intermediate speed	全热 Total heat	0.89	0.87	0.86	0.84	0.87	0.85	0.88	0.87	0.9
	显热 Sensible heat	0.87	0.84	0.83	0.82	0.85	0.83	0.86	0.84	0.85
低速 Low speed	全热 Total heat	0.73	0.72	0.7	0.66	0.73	0.71	0.68	0.67	0.66
	显热 Sensible heat	0.65	0.68	0.67	0.62	0.69	0.67	0.64	0.62	0.61

制热性能变化表 Thermal Performance Change Table

型号 FP-	水流量 kg/h	水阻力 kpa	进风温度 40 热量W	出水温度℃	45 热量W	出水温度℃	50 热量W	出水温度℃	55 热量W	出水温度℃	60 热量W	出水温度℃	65 热量W	出水温度℃	70 热量W	出水温度℃	75 热量W	出水温度℃	80 热量W	出水温度℃
34	131	1.6	1142	32.5	1477	35.3	1772	38.4	2160	40.8	2548	43.3	2935	45.7	3254	48.6	3673	50.9	3927	54.2
	267	5.4	1338	35.7	2117	38.2	2773	41.1	3084	45.1	3452	48.9	3735	53	4046	57	4273	61.3	4793	64.6
	391	10.0	1576	36.5	2297	39.9	2908	43.5	3076	48.2	3805	51.5	4383	55.3	4447	60.1	4814	64.3	5344	68.1
	527	15.8	1782	37.1	2704	40.6	3184	44.8	3743	48.9	4246	53.1	4413	57.8	4643	62.4	5140	66.6	5914	70.4
51	184	4	1799	31.6	2377	33.9	2965	36.2	3417	39	3888	41.8	4379	44.5	5090	46.2	5712	48.3	6237	50.9
	367	12.7	2549	34	3040	37.9	3763	41.2	4208	45.2	4613	49.2	5018	53.3	5965	56.1	7006	58.6	7767	61.9
	576	25	3033	35.2	4069	38.6	4580	42.8	5348	46.5	5380	51.5	6127	55.4	6490	59.8	7041	63.9	7899	67.6
	729	40	3494	35.9	4335	39.9	4992	44.1	5657	48.3	6156	52.8	6323	57.6	6822	62	7404	66.3	8560	69.9
68	231	3.5	2344	31.3	2915	34.2	3599	36.7	4485	38.4	5085	41.2	5632	44.1	6623	45.5	7067	48.8	7920	50.7
	463	11.1	3134	34.2	3455	38.6	4285	42.1	5661	44.5	6031	48.8	6613	52.7	7512	56.1	8412	59.4	9840	61.8
	716	18	3487	35.7	4291	39.7	5241	43.5	5956	47.6	7010	51.4	7623	55.6	7862	60.3	9211	63.6	10449	67.1
	925	30	4244	36.1	4534	40.8	5648	44.8	6287	49.2	7459	53.1	8098	57.5	8844	61.8	10017	65.7	11386	69.5
85	283	3.5	2839	31.4	3860	33.3	4460	36.5	5010	39.8	5773	42.5	6384	45.6	7545	47.1	8370	49.6	8976	52.8
	566	11	4083	33.8	4619	38.0	5060	42.3	6497	45.2	6997	49.4	7622	53.4	9121	56.2	10308	59.4	11497	62.6
	853	21	4386	35.5	5016	39.9	5975	43.9	7003	47.9	8323	51.5	8776	56.1	10107	59.7	11484	63.3	12286	67.5
	1126	33.3	4935	36.2	5254	41	6443	45.1	7807	49.1	8922	53.2	9665	57.6	10780	61.8	12143	65.8	12995	70.1
102	331	4	3104	32	4289	33.9	4952	37.2	5635	40.4	6454	43.3	7820	44.8	8469	48.1	9357	50.8	10271	53.4
	668	12.6	4420	34.3	5064	38.5	5654	42.7	7329	45.6	7958	49.8	8935	53.5	10610	56.4	11378	60.4	12846	63.5
	1069	30	5041	35.7	6177	39.7	6898	44.1	8413	47.8	9616	51.7	9824	56.6	10975	60.6	12116	64.6	13257	68.6
	1336	37.9	5521	36.5	5765	41.3	7207	45.4	8455	49.6	10118	53.5	10395	58.3	11920	62.3	13731	66.2	14536	70.7
136	700	5.2	6825	31.6	8489	34.6	11088	36.4	13290	38.7	14429	42.3	16859	44.3	19571	46	21639	48.5	23066	51.7
	929	15.8	5699	34.7	7480	38.1	9334	41.4	9943	45.8	11464	49.4	14305	51.8	15175	56	16993	59.3	18469	63
	1375	30	6314	36.1	8439	39.8	9892	43.9	11262	48.1	13131	51.9	14153	56.3	15842	60.2	18029	63.9	20176	67.6
	1858	40.9	6839	36.8	8889	40.9	10754	45	12378	49.3	13595	53.7	15015	58.1	17431	62	19065	66.2	20075	70.7
170	535	7.4	5086	31.8	6176	35.1	8079	37	9407	39.9	10956	42.4	12395	45.1	14092	47.4	15371	50.4	16478	53.6
	1069	22.9	6194	35	8109	38.5	9771	42.2	11568	45.7	12803	49.7	14600	53.3	16685	56.6	18581	60.1	19112	64.7
	1657	39	6529	36.5	8369	40.5	10015	44.6	11825	48.6	15390	51.8	15424	56.7	17110	60.8	18920	64.8	20668	68.9
	2128	61.3	8178	36.7	8940	41.4	11121	45.5	12678	49.9	14680	54.1	16682	58.3	18658	62.5	20217	66.9	22446	71
204	678	4.7	6704	31.5	8384	34.4	9812	37.6	12162	39.6	13682	42.7	15340	45.6	18157	47	19618	50.2	20578	54
	1356	14.4	8318	34.7	10757	38.2	12077	42.4	15307	45.3	17113	49	18256	53.5	22282	55.9	24381	59.6	25564	63.8
	1983	28	8189	36.5	10149	40.7	12279	44.8	14464	48.9	18262	52.3	18251	57.3	20353	61.4	22486	65.5	24599	69.6
	2701	43.8	11209	36.4	11974	41.2	14352	45.4	16885	49.6	19136	53.9	21669	58.1	23890	62.4	26441	66.6	29791	70.5
238	745	8.5	7197	31.7	9200	34.4	11229	37.1	13270	39.7	15324	42.4	17360	45	19512	47.6	21551	50.2	23611	52.8
	1490	25.3	8968	34.8	11385	38.5	13815	42.1	16260	45.6	18711	49.2	21186	52.8	23643	56.4	26132	60	28620	63.5
	2303	49	9622	36.3	12169	40.3	14773	44.3	17345	48.3	21240	52.3	22604	56.3	25169	60.3	27861	64.3	30521	68.3
	2980	70.1	12611	36.4	12611	41.4	15278	45.6	17945	49.8	20664	54.1	23347	58.3	26059	62.5	28777	66.7	31537	70.9

注Note:

1. 型号Model; 2.进水温度Water inlet temperature; 3.水流量Water flow rate; 4.水阻力Water resistance;
5.进风温度Inlet air temperature; 6.全冷Full cooling; 7.显冷Sensible cooling; 8.出水温度Water outlet temperature.

上表中制热量为高档风量时参数，中低档风量时制热量为上表中参数乘以修正系数。

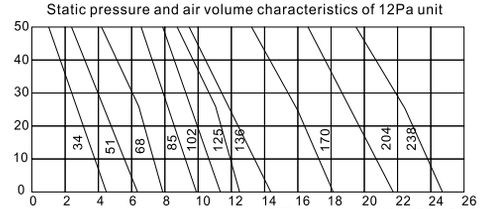
In the above table, the heating capacity is the parameter of the high-grade air volume, and the heating capacity in the middle and low grades is the parameter multiplied by the above correction factors.

中档制热能力修正系数 Correction Factors of the Middle Grades Heating Capacity

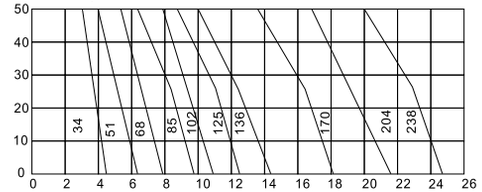
型号 FP- Model FP-		34	51	68	85	102	136	170	204	238
中速 Intermediate speed	全热 Total heat	0.84	0.83	0.8	0.79	0.83	0.81	0.83	0.82	0.85
	显热 Sensible heat	0.66	0.66	0.6	0.57	0.64	0.61	0.59	0.58	0.62

性能曲线图 Diagram of Performance Curves

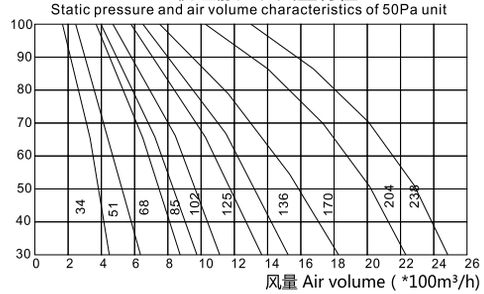
12Pa机组静压、风量特性
Static pressure and air volume characteristics of 12Pa unit



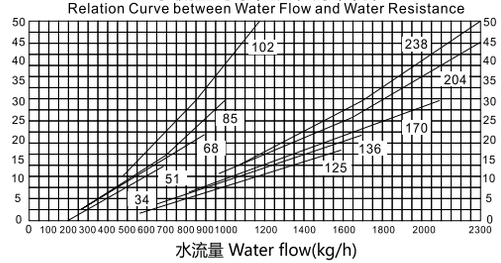
30Pa机组静压、风量特性
Static pressure and air volume characteristics of 30Pa unit



50Pa机组静压、风量特性
Static pressure and air volume characteristics of 50Pa unit



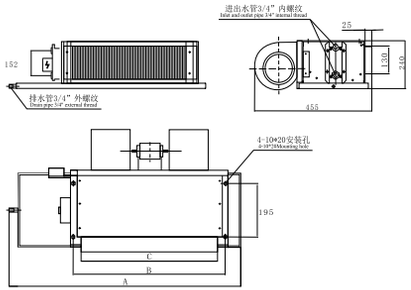
水流量与水阻力关系曲线
Relation Curve between Water Flow and Water Resistance



风机盘管机组 Fan Coil Unit

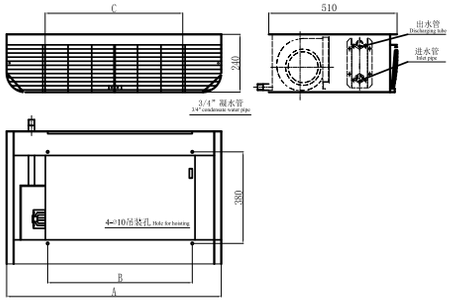
结构及主要尺寸 Structure and Main Dimensions

吊顶暗装机组 Suspended ceiling concealed unit



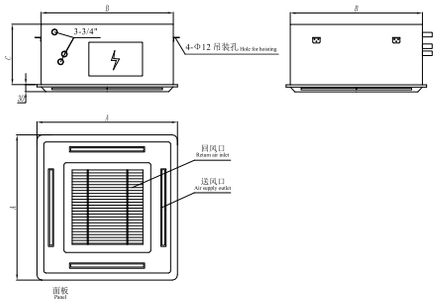
型号 Model	外形尺寸（mm） Boundary dimensions (mm)			数量 Nos.		净重 Net weight
	A	B	C	风扇 Fan	马达 Motor	KG
FP-34	750	490	460	1	1	16
FP-51	850	610	580	1	1	17
FP-68	950	680	650	2	1	18.5
FP-85	1050	810	780	2	1	20
FP-102	1150	930	900	2	1	22
FP-136	1350	1130	1100	2	1	25
FP-170	1650	1390	1360	3	2	34
FP-204	1850	1590	1560	4	2	38
FP-238	2050	1790	1760	4	2	42

吊挂明装机组 Suspended ceiling open unit



型号 Model	外形尺寸（mm） Boundary dimensions (mm)		
	A	B	C
FP-C-34	790	440	470
FP-C-51	940	600	620
FP-C-68	980	670	660
FP-C-85	1020	760	700
FP-C-102	1140	850	820
FP-C-136	1410	1130	820
FP-C-170	1610	1340	1290
FP-C-204	1840	1530	1520
FP-C-238	1920	1650	1600

卡式半明装机组 Card type semi-mounted unit



强排水型机组尺寸表（二管制四出风）

型号 Model	外形尺寸（mm） Boundary dimensions (mm)			净重 Net weight
	A	B	C	kg
FP-KQ-34	650	590	240	17
FP-KQ-51	650	590	240	18
FP-KQ-68	650	590	240	18
FP-KQ-85	850	750	240	22
FP-KQ-102	850	750	240	23
FP-KQ-136	850	750	240	23
FP-KQ-170	950	840	290	26
FP-KQ-204	950	840	290	27
FP-KQ-238	950	840	290	27

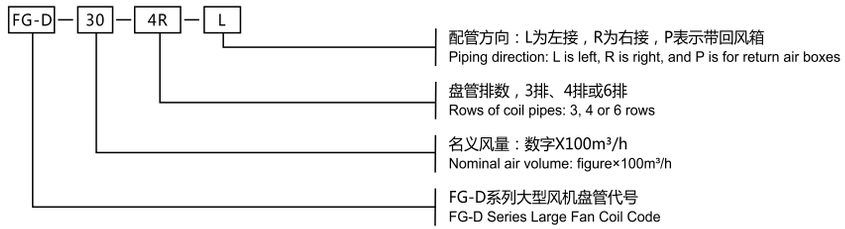
FG-D系列大型风机盘管机组 FG-D Series Large Fan Coil Unit

一、机组简介 I. Unit Introduction

FG-D系列产品是适合安装于酒店、商场、办公大楼、医院、机场、地铁、宾馆、走廊水平隐蔽式空间的中央空调末端装置。机组的结构，风量、冷量及性能介于标准风机盘管和风柜之间。机组体积小，重量轻，安装方便，运行平稳安静，风机为电机直驱式，耗电少，机组重量较轻，而且所供冷量较大，对于余压要求不高的使用场合FG-D系列产品最为合适，他填补了空调系统设计安装的一份空缺。机组另有回风箱设计可供选择。

The FG-D series products are central air-conditioning terminal devices for horizontal concealed spaces in hotels, shopping malls, office buildings, hospitals, airports, subways, hotels, and corridors. The structure, air volume, cooling capacity and performance of the unit are between those of the standard fan coil and the air cabinet. The unit is featured with small volume, light weight, easy to installation, and stable operation; the fan is a direct drive motor with less power consumption. Due to the light weight and large cooling capacity, the unit is most suitable for FG-D series products where the residual pressure is not high, filling a gap in the design and installation of air conditioning systems. There is a return air box design for the unit can be selected.

二、机组型号表示方法 II. Model Representation for Unit Model



三、订货须知 III. Ordering Notices

1、客户在订货时可根据使用工况及要求选择合适的型号、规格和电机功率。

2、选购机组应说明热交换器的排数、机组出风口方向。

3、FG-D机组划分基准：面对盘管出风口，配管在左手边为左机，反之为右机。（上图左机）

4、样本所标的噪音是指额定状态下，距风管出口1米处测定的噪音值。

1. Customers can choose the appropriate model, specifications and motor power according to the working conditions and requirements when ordering.
2. It is required to indicate the number of rows of heat exchangers and the direction of the air outlets of the unit when purchase.
3. FG-D unit division benchmark: Take the direction facing the fan coil outlet as the reference, the unit with pipe on the left hand side is the left unit and vice versa. (the left unit is shown above)
4. The noise marked in the sample refers to the noise value measured at a distance of 1 m from the outlet of the duct under rated conditions.

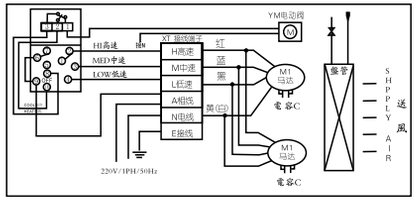
FG-D系列大型风机盘管机组
FG-D Series Large Fan Coil Unit

机组安装 Unit installation

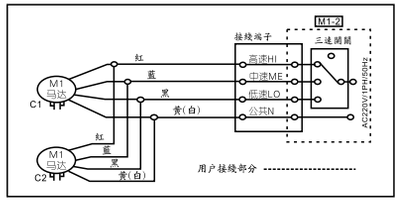
1、搬运机组应小心轻放，不得手执叶轮、蜗壳搬运机组，以免叶轮变形。不得把进出水管作为搬运手柄。
2、吊装时应保持机组水平安装以保证冷凝水的顺利排放，接水管为下进出水，螺纹连接应用生料带以确保密封。接管是应先从盘管进水一侧接起，并采用软管接头，以保护风机盘管水接头不致扭伤。
3、风机盘管安装时，进出水管管道应设阀门，以调节水量，也可配用电动阀用温控器控制，电气的接线头方法应严格按照机组电气接线图连接。
4、与风机盘管机组连接的风管与水管的重量不得由机组本身单独承受。
5、通电运行前必须先清洗机组，确保风机、水盘及管路内无异物。
6、通水使用时必须打开机组放气阀，排空管内空气，待有水流出来时再关闭放气阀。
7、机组使用冷水温度不低于5度，热水温度不高于80度，要求水质干净，尽量使用软质水。
8、根据现场使用情况定期清洗过滤网及表冷器。
9、机组停用时，冬季须注意防冻，以防管子冻裂。

1. The unit should be handled with care, and the impeller and volute handling unit must not be hand-held to avoid deformation of the impeller during handling. The inlet and outlet pipes are not allowed to be used as handling handles.
2. When lifting, the unit should be installed horizontally to ensure the smooth discharge of condensate, the water inlet pipe is the lower inlet and outlet water, and the raw material belt should be applied to the threaded connection to ensure the sealing. When connecting pipes, it should be connected from the water inlet side of the coil and a hose joint should be adopted to protect the fan coil water joint from spraining.
3. During the installation of the fan coil, the inlet and outlet pipes should be equipped with valves to adjust the water volume. It can also be equipped with an electric valve controlled by a thermostat. The electrical terminal method should be connected strictly according to the electrical wiring diagram of the unit.
4. The weight of the duct and water pipe connected to the fan coil unit shall not be borne by the unit itself.
5. Before power-on operation, the unit must be cleaned first to ensure that there are no foreign objects in the fan, water tray and pipes.
6. When it is used for passing water, the unit vent valve must be opened to empty the air in the pipe, and the vent valve should be closed when water flows out.
7. When the unit is used, the temperature for cold water should not be less than 5 degrees, and that for hot water should not be higher than 80 degrees. The water is required to be clean and soft water is used as much as possible.
8. The filter and the surface air cooler should be cleaned regularly according to the site usage.
9. When the unit is stopped, it is necessary to pay attention to antifreeze in winter to prevent the pipe from cracking.

盘管机组带电动及温控器电气接线图
Electrical Wiring Diagram for Coil Unit with Electric and Thermostat



盘管机组电气接线图
Electrical Wiring Diagram of Coil Pipe Unit



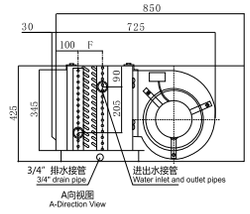
注Note:

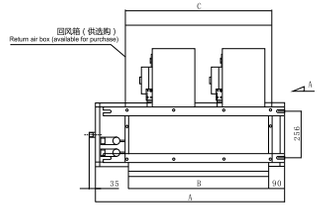
HI高速 HI high speed；MED中速 MED medium speed；LOW低速 LOW Low speed；制冷 Refrigeration；制热 Heating；接 Connecting；接线端子 Terminal；高速 High speed；中速 Intermediate speed；低速 Low speed；相线 Phase wire；电线 Electrical wire；接线 Wiring；电动阀 Electric valve；红 Red；蓝 Blue；黑 Black；黄（白）Yellow (white)；马达 Motor；电容 Capacitor；盘管 Coil；送风 Supply air；三速开开 Three-speed switch；公共 Public；用户接线部分 User wiring section.

资料若有修改，恕不另行通知，如需获取最新资料，请浏览本公司网页与本公司联系。
The information is subject to change without prior notice. For the latest information, please visit our website to contact the company.

FG-D机组结构及外形尺寸
FG-D Unit Structure And Dimensions

FG-D系列-标准型 FG-D series- standard





外形尺寸 Dimensions：（mm）

型号 Model	A	B	C	F			进出水管 Inlet and outlet pipes	重量Weight(KG)			电机功率W Motor power W	噪音dB(A) Noise dB(A)
				3R	4R	6R		3R	4R	6R		
FG-D-15	630	350	390	44	66	110	DN25	38	40	42	150	≤52
FG-D-18	700	420	460	44	66	110	DN25	40	42	46	200	≤52
FG-D-21	840	560	600	44	66	110	DN25	40	50	56	200	≤54
FG-D-30	1080	800	840	44	66	110	DN40	64	70	78	150*2	≤54
FG-D-34	1120	840	880	44	66	110	DN40	70	74	82	200*2	≤56
FG-D-38	1120	940	980	44	66	110	DN40	76	82	90	200*2	≤56
FG-D-46	1360	1080	1120	44	66	110	DN40	88	86	105	150*3	≤60
FG-D-56	1580	1300	1340	44	66	110	Dn40	96	105	115	200*3	≤61

注：标准机组无回风箱，工作电源220V/1-50Hz。
Note: The standard unit is not provided with a return air box and the working power supply is 220V/1-50HZ.

表（一）Table (I)

型号 Model	风量 Air Volume CHM	盘管排数 Number of coil rows	制冷 Refrigeration						制热 Heating
			27/19.5°C回风工况 27/19.5°C return air working condition			33/27°C回风工况 27/19.5°C return air working condition			21°C进风度 21°C air inlet capacity
			水量 Water flow L/S	水阻力 Water resistance KPa	冷量 Cooling capacity KW	水量 Water flow L/S	水阻力 Water resistance KPa	冷量 Cooling capacity KW	热量 Heating KW
FG-D-15	1540	3	0.42	5.3	8.7	0.88	8.1	16.8	12.8
		4	0.48	7.6	10	0.93	10	19.5	15.3
		6	0.55	9.5	11.4	1.06	15.3	22.3	18
FG-D-18	1760	3	0.46	6.7	9.8	1.03	13.2	21.7	13.6
		4	0.54	8.4	11.3	1.12	15.1	23.5	16.5
		6	0.62	10.7	12.9	1.25	20.5	26.2	19.6
FG-D-21	2100	3	0.57	8.7	11.7	1.21	18.7	25.4	17.1
		4	0.62	11.2	13	1.34	23.8	28	19.8
		6	0.7	13.6	14.9	1.47	29.5	30.8	22.9
FG-D-30	3080	3	0.83	10.6	17.6	1.87	32.2	39.1	25.5
		4	0.93	13.2	19.5	2.07	26.9	43.5	28.3
		6	1.03	18.7	21.6	2.24	45.3	47	33.2
FG-D-34	3400	3	0.91	11.4	19	2.04	36.3	42.7	27.8
		4	1.01	15.4	21.3	2.3	42.6	48.3	31.8
		6	1.17	20.95	24.4	2.57	50.5	53.8	37.4
FG-D-38	3800	3	0.98	12.1	20.3	2.2	40.3	46.2	30.1
		4	1.09	17.5	23	2.53	48.2	53	35.2
		6	1.3	23.2	27.2	2.9	55.7	60.6	41.5
FG-D-46	4600	3	1.24	22.5	26	2.7	53.3	56.5	39.2
		4	1.37	26.8	28.8	3.04	60.5	63.6	45.1
		6	1.53	35.2	33.1	3.35	69.1	70.1	52
FG-D-56	5650	3	1.48	31.6	32.5	3.47	62.8	72.8	47.3
		4	1.82	38.1	38.2	3.87	68.3	81.2	55.6
		6	2.08	43.2	44.5	4.32	77.6	90.5	63.2

注Notes：
1、进/出水温度，制冷进/出水温度：7/12°C，制暖进水温度：60°C;
1. Inlet/outlet water temperature, cooling inlet/outlet water temperature: 7/12°C, and heating inlet water temperature: 60°C;
2、风量及标准制冷量、制热量以机外静压50Pa为准。
2. The air volume and standard refrigerating capacity and heating capacity are based on the external static pressure of 50Pa.

Large Fan Coil Unit 大型风机盘管机组

空气处理机组
Air Handling Unit

一、机组简介 I. Unit Introduction

FG系列空气处理机组有FG-H吊顶式机组、FG-V立式机组、FH-Z直接联动超薄型机组、FG-S射流空气处理机组。

FH-Z系列直联传动双面板空调机组是专为天花吊顶安装而设计，节省空间。机组共有3种型号，每种型号有4排、6排、8排盘管可供选择，处理风量1600m³/h~2500m³/h,冷量由9.4~50.2KW,静压从120~300Pa,可用于回风工况制冷或制热，也可作为新风使用，机组采用外转子风机。

FG-H、FG-V系列空气处理机组各有19种型号，多种搭配结构，标准型风量范围3000-65000m³/h,冷量范围18.6~1064.9KW,机组静压200~800Pa。每种型号有4排、6排、8排管及10片/英寸，12片/英寸的热交换器。机组结构引进台湾先进技术，经过精心设计，质量可靠，性能稳定，具有以下特点：

(1)、机箱采用铝合金框架双面板结构，面板采用优质彩钢板，夹层填充保温材料，结构紧凑，外形美观，防结露，易维修，噪音低。

(2)、风机采用前弯多叶片双吸口离心式风机，经动静平衡校正，风机效率高，配置进口轴承，减震系统和软接装置，机组运行平稳，非常宁静。

(3)、热交换器采用波纹型铝翅片及优质铜管整体套片形式，经二次翻边工艺和机械胀管，确保接触紧密，热交换效率高，风阻、水阻力小并容易清洗。

(4)、机组空气过滤器为双层尼龙网过滤器，装拆方便，易于清洗，可长久使用，过滤效率高。产品具有供冷能力强，效率高，噪音低，经久耐用等优点，是各种高级宾馆、酒店、商场、写字楼、厂房车间等对风量、冷量、湿度和洁净要求较高的中央空调系统配套设备理想产品。

FG series air handling units include FG-H suspended ceiling type unit, FG-V vertical unit, FH-Z direct linkage ultra-thin unit, and FG-S jet air handling unit.

The FH-Z series direct-coupled double-panel air conditioning unit is designed for suspended ceiling installation for saving space. There are 3 types of units, with 4 rows, 6 rows and 8 rows of coils for selection. The air volume is 1,600m3/h~2,500m3/h, the cooling capacity is 9.4~50.2KW, and the static pressure is from 120~300Pa. The unit can be used for cooling or heating in return air conditions, and can also be used as fresh air. The unit uses external rotor fan.

There are 19 types of FG-HV FG-VS air handling units, with multiple matching structures. For the standard type, the air volume range is 3,000-65,000m3/h, the cooling capacity range is 18.6~1064.9KW, and the unit static pressure is 200~800Pa. Each type of the air handling unit has 4 rows, 6 rows, and 8 rows of pipes and 10 and 12 sheets per inch of heat exchanger. The unit structure is introduced from Taiwan's advanced technology. With careful design, the unit is reliable in quality and stable in performance, including the following features:

(1) The case adopts aluminum alloy frame double-panel structure, the panel is made of high-quality color steel plate, and the sandwich is filled with thermal insulation material. Therefore, it is featured with compact structure, beautiful appearance, anti-condensation, low noise, and easy to maintenance.

(2) With a front-bend multi-blade double-suction centrifugal fan, and being corrected by dynamic and static balance, the fan has high efficiency. Besides, the fan is equipped with imported bearings, shock absorption system and soft joint device, so that the unit can operate in a smooth and very quiet manner.

(3) The heat exchanger adopts the corrugated aluminum fin and the high-quality copper tube integral sleeve form. With the double-flanging process and mechanical expansion tube, the heat exchanger is featured with tight contact, high heat exchange efficiency, small air and water resistance, and easy to clean.

(4) The air filter of the unit is a double-layer nylon mesh filter, which is convenient to assemble and disassemble, easy to clean, long-term use and high filtration efficiency. Featured with strong cooling capacity, high efficiency, low noise and durability, the product is an ideal product for a variety of high-end hotels, hotels, shopping malls, office buildings, workshops and other central air-conditioning system supporting equipment with high air volume, cooling capacity, humidity and cleanliness requirements.

空气处理机组
Air Handling Unit

空气处理机组
Air Handling Unit

FG-S射流空气处理机组是浩金欧博为客户开发的新型空气处理机组。该机组为吊顶结构，电源380V/3-50HZ,采用性能优越的球形喷口作为风口，无需风管可实现远距离直接送风，节省空间，降低层高，使一次性投资成本大为减少。

The FG-S jet air handling unit is a fresh air handling unit developed by Haojin Oubo for customers. The unit is a suspended ceiling structure with a power supply of 380V/3-50HZ. It adopts a spherical nozzle with superior performance as the air outlet. The long-distance direct air supply can be realized without the need of a duct, which saves space and reduces the height of the floor, so that the cost of one-time investment is greatly reduced.

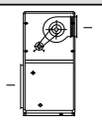
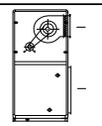
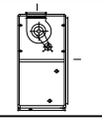
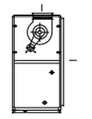
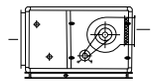
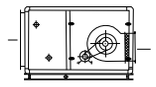
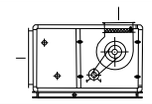
二、型号说明 II. Model Description

FG-V - 15 - 4R - C - X - T

- T为非标准型机组，标准机组不予表示。
  T is the non-standard unit, and the standard unit is not shown.
- X表示新风工况，回风工况不予表示。
  X represents the fresh air condition, and the return air condition is not indicated.
- 机组进出风方式，标准出风方式可不予表示。
  The inlet and outlet method, and the standard air outlet mode may not be indicated.
- 热交换器排数，如4R为4排管。
  The number of rows of heat exchangers, i.e. 4R is a 4-row pipes.
- 名义风量：数字*1000m³/h。
  Nominal air volume: figure * 1,000 m3/h.
- 欧博空调空气处理机组代号及形式。
  Air handling unit code and form of Oubo Air Conditioning.
- FG-V为立式；FG-Z为直联传动式、FG-H为吊顶式。
  FG-V is vertical; FG-Z is direct transmission, and FG-H is ceiling.
- FG-S为射流式，FG-W为卧式。
  FG-S is a jet type and FG-W is a horizontal type.

空气处理机组 Air Handling Unit

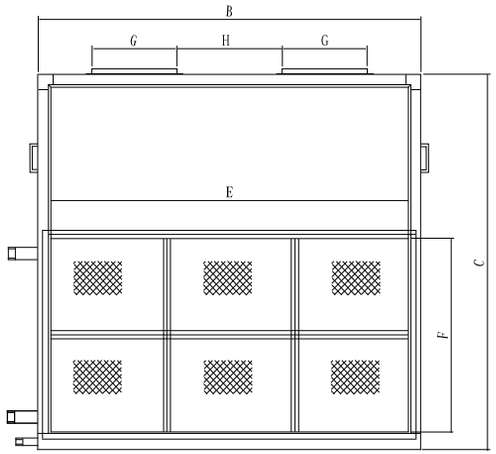
三、机组出风方式 III. Unit Outlet Mode

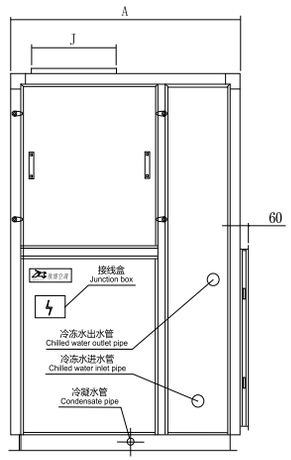
形式 type	出风方向 Air outlet direction		型号规格 Type and Specification	代号 Code	简图
立式机组 Vertical units	水平出风 Horizontal air	前进后出 Front inlet and rear outlet	FG-3.0-FG-60	A	
		前进前出 Front inlet and front outlet	FG-3.0-FG-60	B	
	上出风 Upward air	前进上（后）出 Front inlet and up (rear) outlet	FG-3.0-FG-60	C	
		前进上（前）出 Front inlet and up (front) outlet	FG-3.0-FG-60	D	
吊挂式 Hanging / 卧式机组 horizontal unit	水平出风 Horizontal air	前进后（上）出 Front inlet and rear (up) outlet	FG-7.5-FG-60	E	
		前进后（下）出 Front inlet and rear (down) outlet	FG-3.0-FG-25 FG-Z-1.6-FG-Z-2.5	F	
	上出风 Upward air	前进上出 Front inlet and up outlet	FG-5.0-FG-60	G	

注Note:

FG-Z/FG-H吊挂式空气处理机组标准出风方式代号为F；
The standard air outlet mode code of FG-Z/FG-H hanging air handling unit is F;
FG-V立式空气处理机组标准出风方式代号为C；
The standard air outlet mode of FG-V vertical air handling unit is code C;
FG-W卧式空气处理机组标准出风方式代号为G；
The standard air outlet mode of FG-W horizontal air handling unit is G;
资料若有修改，恕不另行通知，如需获取最新资料，请浏览公司网页或与本公司联系。
The information is subject to change without prior notice. For the latest information, please visit our website or contact the company.

立式、卧式空气处理机组 FG-V/FG-W Vertical And Horizontal Air Handling Unit FG-V/FG-W

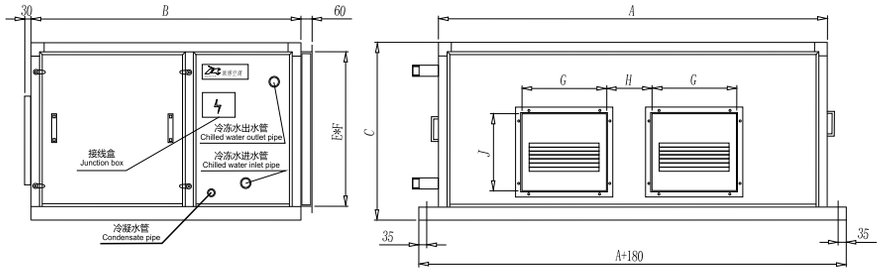




机组外形尺寸与重量表 Table for Dimensions of Unit and Weight

型号 Model	外形尺寸Boundary dimensions (mm)				标准静压 Standard static pressure	电机功率 Motor power	送风口尺寸 Size of air supply opening	回风口尺寸 Size of return air inlet	机组重量Boundary dimensions (KG)		
	长 Length	宽 Width	高 Height						管排数 No.of tube rows		
FG-V FG-W	A	B	C	H	Pa	KW	G*J	E*F	4R	6R	8R
3.0	700	1005	1265	——	200	0.75	330*290	915*440	131	158	184
4.0	700	1005	1395	——	200	1.1	330*290	915*580	137	163	189
4.5	700	1105	1395	——	200	1.5	330*290	1015*580	142	168	194
5.0	700	1105	1455	——	200	1.5	330*290	1015*640	156	183	210
5.5	700	1105	1515	——	200	2.2	330*290	1015*705	172	200	226
7.5	700	1355	1595	——	250	2.2	400*340	1265*705	221	252	284
9.0	900	1355	1735	——	250	3	405*405	1265*830	294	331	373
10	900	1575	1700	——	300	4	455*455	1485*770	326	357	383
12	900	1575	1830	——	300	4	455*455	1485*895	341	368	399
15	1000	1705	2050	——	300	5.5	505*505	1615*1000	399	446	483
17	1000	1705	2250	——	350	5.5	565*565	1615*1150	462	515	578
20	1200	1775	1640	355	350	7.5	455*455*2	1685*1255	525	578	630
25	1200	1895	1700	355	400	11	455*455*2	1805*1530	609	683	746
30	1260	2005	1895	400	400	11	505*505*2	1915*1675	642	695	762
36	1360	2325	1895	450	400	15	565*565*2	2235*1675	725	785	845
40	1460	2546	1920	500	500	15	635*635*2	2455*1675	780	850	925
45	1460	2825	1895	500	500	18.5	635*635*2	2735*1675	865	940	1050
50	1460	2905	2065	500	500	18.5	635*635*2	2815*1825	990	1080	1160
60	1660	3105	2245	500	500	22	715*715*2	3015*2025	1180	1280	1360

吊顶式空气处理机组 G-Z/FG-H
Ceiling Suspended Air Handling Unit G-Z/FG-H

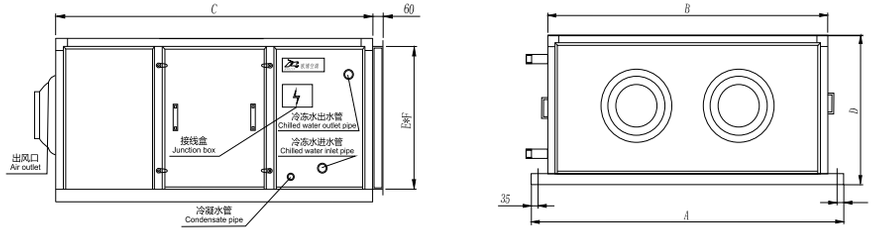


机组外形尺寸与重量表 Vertical And Horizontal Air Handling Unit FG-V/FG-W

型号 Model	外形尺寸Boundary dimensions (mm)					标准静压 Standard static pressure	电机功率 Motor power	送风口尺寸 Size of air supply opening	回风口尺寸 Size of return air inlet	机组重量Boundary dimensions(KG)		
FG-Z FG-H	长 Length	宽Width 4、6排rows	宽Width 8排rows	高 Height						管排数 No.of tube rows		
	A	B	B	C	H	Pa	Kw	G*J	E*F	4R	6R	8R
1.6Z	800	820	880	575	—	120	0.25	250*150	715*405	85	98	105
2.0Z	900	820	880	575	—	150	0.45	275*262	815*405	110	125	140
2.5Z	1000	900	960	575	—	200	0.55	298*262	915*405	125	136	150
3.0	1000	1100	1160	645	—	200	0.75	330*290	910*490	125	150	175
4.0	1200	1100	1160	645	—	200	1.1	330*290	1110*490	130	155	180
4.5	1300	1100	1160	645	—	200	1.5	330*290	1210*490	135	160	185
5.0	1450	1100	1160	645	—	200	1.5	330*290	1360*490	149	174	200
5.5	1550	1100	1160	645	—	200	2.2	330*290	1460*490	164	190	215
7.5	1600	1100	1160	805	—	250	2.2	360*360	1510*650	210	240	270
9.0	1700	1100	1160	875	—	250	3	405*405	1610*720	280	315	355
10	1800	1100	1160	925	—	300	4	455*455	1710*770	310	340	365
12	1800	1100	1160	975	—	300	4	455*455	1710*820	325	350	380
15	2000	1100	1160	1025	280	300	5.5	360*360(2个)	1910*870	380	425	460
17	2000	1100	1160	1175	315	350	5.5	405*405(2个)	1910*1020	440	490	550
20	2300	1100	1160	1175	355	350	7.5	455*455(2个)	2210*1020	500	550	600
25	2300	1100	1160	1425	355	400	11	455*455(2个)	2210*1270	580	650	710

注：FG-Z系列机组为直联传动机组
Note: FG-Z series unit is a direct transmission unit

射流空气处理机组FG-S
Jet Air Handling Unit FG-S



机组性能参数表 Table of Performance Parameters of Unit

型号 Model	风量 Air Volume		标准静压 Standard static pressure	射程 Range	距离推荐 Distance recommendation	配电机 Motor equipped	风轮 Wind wheel	回风口尺寸 Size of return air inlet
	标准风量 Standard air volume	使用范围 Application					直径*数量 Diameter * Quantity	E*F
FG-S	CMH*1000		Pa	M	M	KW	IN*数量Quantity	MM
3.0	3.0	2.5~3.3	150	15	20	0.75	10″ *1	865*475
4.0	4.0	3.2~ 4.7	150	15	20	1.1	10″ *1	1115*475
4.5	4.5	3.6~ 5.3	150	15	20	1.5	10″ *1	1215*475
5.0	5.0	3.9~ 5.8	150	20	25	2.2	10″ *1	1365*475
5.5	5.5	4.3 ~6.4	150	20	25	2.2	12″ *1	1465*475
7.5	7.5	5.8 ~8.6	200	25	30	2.2	12″ *1	1515*625
9.0	9.0	7.2 ~10.8	200	25	30	3	15″ *1	1615*715
10.0	10.0	7.9 ~11.8	150	25	30	4	15″ *1	1715*765
12.0	12.0	9.6~ 14.4	250	25	30	4	18″ *1	1715*810
15.0	15.0	12 ~16.8	250	25	30	5.5	18″ *1	1915*910

说明：机组的射程的最大覆盖宽度大约是射程的0.4倍，机组布置应考虑气流的扩散角度、间距不宜过大，机组可以考虑单边也可以考虑相对送风。
Note: The maximum coverage of the range of the unit is approximately 0.4 times the range. The layout of unit should consider the diffusion angle and spacing of the airflow should not be too large. The unit can consider the unilateral or relative air supply.

机组外形尺寸与重量表 Table for Dimensions of Unit and Weight

型号 Model	外形尺寸Boundary dimensions(mm)					冷凝水管 Condensate pipe	机组重量Boundary dimensions(KG)		
	宽 Width		长 Length 4、6排rows	长 Length 8排rows	高 Height	出风口 Air outlet	管排数 No.of tube rows		
FG-S	A	B	C		D		(DN)	4R	6R	8R
3.0	1180	1000	1600		645	Φ315*2	DN25	138	165	193
4.0	1380	1200	1600		645	Φ250*3	DN25	143	171	198
4.5	1480	1300	1600		645	Φ315*3	DN25	149	176	204
5.0	1630	1450	1600		645	Φ315*3	DN25	164	191	220
5.5	1730	1550	1600		645	Φ315*3	DN25	180	209	237
7.5	1780	1600	1600		805	Φ400*3	DN25	231	264	297
9.0	1880	1700	1600		875	Φ400*3	DN25	308	347	391
10	1980	1800	1600		925	Φ500*2	DN25	341	374	402
12	1980	1800	1600		975	Φ500*2	DN25	358	385	418
15	2180	2000	1600		1025	Φ500*3	DN25	418	468	506

注：机组制冷参数按FG标准产品选择。
Note: Unit cooling parameters are selected according to FG standard products

Air Handling Unit 空气处理机组

机组性能参数表
Table of Performance Parameters of Unit

回风工况 Return air condition

型号	风量		4排					6排					8排					噪声	冷凝水管管径
	标准风量	风量范围	额定供冷量	额定供热量	水流量	水阻力	冷冻水管管径	额定供冷量	额定供热量	水流量	水阻力	冷冻水管管径	额定供冷量	额定供热量	水流量	水阻力	冷冻水管管径		
FG-	m3/h*1000		kW	kW	m3/h	kPa	DN	kW	kW	m3/h	kPa	DN	kW	kW	m3/h	kPa	DN	dB(A)	DN
1.6Z	1.6	1.0~1.8	10.2	18.5	1.8	9.0	40	13.4	22.1	2.3	19.5	40	14.7	24.1	2.5	19.9	40	53	25
2.0Z	2	1.7~2.4	13.2	24.3	2.3	11.0	40	17.1	28.2	2.9	26.0	40	18.7	30.7	3.2	26.2	40	55	25
2.5Z	2.5	2.1~2.8	16.5	29.8	2.8	18.0	40	20.8	34.3	3.6	38.0	40	24	39.4	4.1	46.9	40	56	25
3.0	3.0	2.5~3.5	20	36.6	3.4	31.0	40	25.2	41.6	4.3	24.0	40	28.5	46.7	4.9	33.3	40	59	25
4.0	4.0	3.5~4.5	26.8	47.5	4.6	42.0	40	34.5	56.9	5.9	49.5	40	38.1	62.5	6.6	54.0	40	60	25
4.5	4.5	4.0~5.2	30.1	52.2	5.2	46.0	40	37.9	62.5	6.5	49.5	40	41.1	67.4	7.1	56.0	40	60	25
5.0	5.0	4.5~5.5	32.4	58.8	5.6	40.0	40	40.3	66.5	6.9	32.0	40	48.1	78.9	8.3	42.8	40	62	25
5.5	5.5	5.0~6.0	35.7	64.7	6.1	43.8	40	44.3	73.1	7.6	44.0	40	52.4	85.9	9.0	31.7	40	63	25
7.5	7.5	6.0~8.8	49.5	87.5	8.5	52.0	40	60.6	100.0	10.4	59.0	50	67	109.9	11.5	45.1	50	64	25
9.0	9.0	7.6~10	59.6	106.6	10.3	34.0	50	74.2	122.4	12.8	36	50	85.3	139.9	14.7	31.6	50	66	25
10	10	8.5~11	68	117.9	11.7	51.0	50	86	141.9	14.8	52	50	92.8	152.2	16.0	43.0	50	67	25
12	12	10~14.5	79.3	150.8	13.6	51.0	50	98.2	162.0	16.9	54	65	103.2	169.2	17.8	43.0	65	67	25
15	15	12.5-16.5	97.7	186.4	16.8	42.0	65	124.2	204.9	21.4	46	65	140.0	229.6	24.1	14.6	65	68	25
17	17	15~19.5	122.5	240.6	21.1	44.0	65	147.6	243.5	25.4	48.0	80	159.1	260.9	27.4	46.7	80	68.5	25
20	20	17~24	140.8	280.0	24.2	46.0	80	164.8	293.5	30.6	50	80	180.3	306.0	31.0	43.6	80	69	32
25	25	21~29	170.3	327.0	29.3	50.0	80	208.2	343.5	35.8	52.0	80	235.9	386.9	40.6	31.7	80	63	32
30	30	24.5~35	213	408.7	36.6	58.0	80	258.8	427.0	44.5	59.0	100	270.4	443.5	46.5	45.1	100	64	32
36	36	30~39	252.8	471.0	30.9	36.0	100	282	481.8	35.7	38	100	313.8	514.6	38.3	31.6	100	66	32
40	40	36~44	264.2	516.3	32.3	38.0	100	324	534.6	39.6	40	100	360.5	591.2	44.0	43.0	100	67	32
45	45	40~49	284.1	555.0	34.7	42.0	100	368	607.2	44.9	44	100	389.5	638.8	47.6	46	100	68	32
50	50	45~55	316.5	616.5	38.7	44.0	100	412	679.8	50.3	46.0	100	452.9	742.8	55.3	46.7	100	68.5	32
60	60	50~65	380	678.1	46.4	48.0	100	460.5	759.8	56.2	50	100	512	839.7	62.5	43.6	100	69	32

注Note:

型号 Model;风量 Air Volume；标准风量 Standard air volume；风量范围 Range of air volume；4排 4 rows；额定供冷量 Rated cooling capacity；额定供热量 Rated heating capacity；水流量 Water flow rate；水阻力 Water resistance；冷冻水管管径 Diameter of chilled water pipe；噪声 Noise；冷凝水管管径 Diameter of condensate pipe.

1、供冷：进风干球温度27℃,湿球温度19.5℃,进/出水温度7℃/12℃;

Cooling: return air condition: inlet air dry bulb temperature is 27 °C, wet bulb temperature is 19.5 °C; and inlet / outlet water temperature is 7 °C / 12 °C;

2、供热：进风干球温度15℃,热水进水温度60℃,水流量与制冷水流量相同；

2. Heating: the air inlet dry bulb temperature is 15 °C, the hot water inlet water temperature is 60 °C, and the water flow rate is the same as the cooling water flow rate;

3、规格参数如因产品改良而更改，恕不另行通知。

3. Specifications are subject to change for the product improvement without prior notice.

机组性能参数表
Table of Performance Parameters of Unit

新风工况 Fresh air condition

型号	风量		4排					6排					8排					噪声	冷凝水管管径
	标准风量	风量范围	额定供冷量	额定供热量	水流量	水阻力	冷冻水管管径	额定供冷量	额定供热量	水流量	水阻力	冷冻水管管径	额定供冷量	额定供热量	水流量	水阻力	冷冻水管管径		
FG-	m3/h*1000		kW	kW	m3/h	kPa	DN	kW	kW	m3/h	kPa	DN	kW	kW	m3/h	kPa	DN	dB(A)	DN
1.6Z	1.6	1.0~1.8	23.5	24.5	4.04	10.4	40	27.8	26.1	4.8	22.4	40	30.8	28.6	5.3	22.9	40	53	25
2.0Z	2	1.7~2.4	30.3	31.6	5.21	12.7	40	35.4	33.3	6.1	29.9	40	41	38.1	7.1	30.1	40	55	25
2.5Z	2.5	2.1~2.8	34.6	36.1	5.95	20.7	40	45.7	43.0	7.9	43.7	40	50.2	46.7	8.6	53.9	40	56	25
3.0	3.0	2.5~3.5	44.8	46.7	7.71	35.7	50	51.9	48.8	8.9	27.6	50	61.5	57.2	10.6	38.3	50	59	25
4.0	4.0	3.5~4.5	55.8	58.1	9.60	48.3	50	72.3	68.0	12.4	56.9	50	80.4	74.8	13.8	62.1	50	60	25
4.5	4.5	4.0~5.2	61.3	63.9	10.54	52.9	50	79.2	74.4	13.6	56.9	50	87.9	81.7	15.1	64.4	50	60	25
5.0	5.0	4.5~5.5	72.5	75.5	12.47	46.0	50	85.5	80.4	14.7	36.8	50	95.6	88.9	16.4	49.2	50	62	25
5.5	5.5	5.0~6.0	79.7	83.0	13.71	50.4	50	93.4	87.8	16.1	50.6	50	104.6	97.3	18.0	36.5	65	63	25
7.5	7.5	6.0~8.8	101.2	105.5	17.41	59.8	50	128.3	120.6	22.1	67.9	65	133.7	124.3	23.0	51.9	65	64	25
9.0	9.0	7.6~10	124.7	129.9	21.45	39.1	65	155.7	146.4	26.8	41.4	65	184.5	171.6	31.7	36.3	80	66	25
10	10	8.5~11	146.1	152.2	25.13	58.7	65	181.7	170.8	31.3	59.8	80	204.5	190.2	35.2	49.5	80	67	25
12	12	10~14.5	167.9	175.0	28.88	58.7	80	210	197.4	36.1	62.1	80	236.5	219.9	40.7	49.5	80	67	25
15	15	12.5-16.5	206.9	215.6	35.59	48.3	80	277.5	261	47.7	52.9	80	294	274	50.6	16.8	100	68	25
17	17	15~19.5	249.6	260.1	42.93	50.6	80	313.8	295	54.0	55.2	100	332	310	54.4	53.7	100	68.5	25
20	20	17~24	309.4	322.4	53.22	52.9	100	357.9	336	61.6	57.5	100	380	352	62.3	50.1	100	69	32
25	25	21~29	360.8	376.0	62.06	57.5	100	415	390	71.4	59.8	100	458	426	78.8	36.5	100	63	32
30	30	24.5~35	431.5	449.6	74.22	66.7	100	516	485	88.8	67.9	100	570	530	98.0	51.9	100	64	32
36	36	30~39	511.6	533.1	62.48	41.4	100	626	588	76.4	43.7	100	650	605	79.4	36.3	100*2	66	32
40	40	36~44	536.1	558.6	65.47	43.7	100	668	628	81.6	46.0	100*2	731	680	89.3	49.5	100*2	67	32
45	45	40~49	603	628.3	73.64	48.3	100*2	723	680	88.3	50.6	100*2	805	749	98.3	52.9	100*2	68	32
50	50	45~55	680	708.6	83.04	50.6	100*2	825	776	100.7	52.9	100*2	937	871	114.4	53.7	100*2	68.5	32
60	60	50~65	762	794.0	93.06	55.2	100*2	948	891	115.8	57.5	100*2	1040	967	127.0	50.1	100*2	69	32

注Note:

型号 Model;风量 Air Volume；标准风量 Standard air volume；风量范围 Range of air volume；4排 4 rows；额定供冷量 Rated cooling capacity；额定供热量 Rated heating capacity；水流量 Water flow rate；水阻力 Water resistance；冷冻水管管径 Diameter of chilled water pipe；噪声 Noise；冷凝水管管径 Diameter of condensate pipe.

1、供冷：进风干球温度35℃,湿球温度28℃,进/出水温度7℃/12℃;

Cooling: return air condition: inlet air dry bulb temperature is 35 °C, wet bulb temperature is 28℃,and inlet / outlet water temperature is 7 °C / 12 °C;

2、供热：进风干球温度7℃,热水进水温度60℃,水流量与制冷水流量相同；

2. Heating: the air inlet dry bulb temperature is 7°C, the hot water inlet water temperature is 60°C, and the water flow rate is the same as the cooling water flow rate;

3、规格参数如因产品改良而更改，恕不另行通知。

3. Specifications are subject to change for the product improvement without prior notice.

Air Handling Unit 空气处理机组

机组性能参数表
Table of Performance Parameters of Unit

型号 Model	风量 Air Volume	静压 Static pressure(Pa)						
FG-	CMH	200	250	300	350	400	500	600
		配电机 Motor equipped (KW)						
3.0	2500	0.75	1.1	1.1	1.1			
	3000	0.75	1.1	1.1	1.1			
	3500	0.75	1.1	1.1	1.1			
4.0	3500	1.1	1.1	1.1	1.5			
	4000	1.1	1.1	1.5	1.5			
	5000	1.1	1.5	1.5	2.2			
4.5	4000	1.1	1.1	1.1	1.5			
	4500	1.5	1.5	2.2	2.2			
	5500	1.5	1.5	2.2	2.2			
5.0	4500	1.5	2.2	2.2	2.2			
	5000	1.5	2.2	2.2	2.2			
	6000	2.2	2.2	2.2	2.2			
5.5	5300	1.5	1.5	1.5	2.2	3	3	
	5500	2.2	2.2	2.2	2.2	3	3	
	6700	2.2	2.2	2.2	2.2	3	3	
7.5	6200	1.5	2.2	2.2	2.2	2.2	2.2	
	7500	1.5	2.2	2.2	3	3	3	
	8900	1.5	2.2	3	3	3	3	
9.0	7800	1.5	2.2	2.2	2.2	3	3	
	9000	2.2	3	3	3	3	4	
	11000	3	4	4	4	4	4	
10	8500	1.5	2.2	3	3	3	3	3
	10000	2.2	3	4	4	4	4	4
	12000	3	4	4	5.5	5.5	5.5	5.5
12	10000	2.2	2.2	3	3	3	4	4
	12000	3	3	4	4	5.5	5.5	5.5
	15000	4	4	5.5	5.5	5.5	5.5	5.5
15	12500	3	4	5.5	5.5	5.5	5.5	5.5
	15000	4	4	5.5	5.5	5.5	5.5	5.5
	17000	5.5	5.5	5.5	7.5	7.5	7.5	7.5
17	15000			4	5.5	5.5	5.5	5.5
	17000			5.5	5.5	5.5	7.5	7.5
	20000			5.5	7.5	7.5	7.5	7.5
20	17000			5.5	5.5	5.5	5.5	7.5
	20000			5.5	7.5	7.5	7.5	7.5
	24500			5.5	7.5	7.5	7.5	7.5
25	21000			5.5	7.5	7.5	7.5	11
	25000			7.5	11	11	11	15
	29500			7.5	11	11	11	15
30	24500			5.5	7.5	11	11	11
	30000			7.5	7.5	11	11	11
	36000			11	11	11	15	15
36	30000			7.5	7.5	11	11	11
	36000			11	11	15	15	15
	39000			11	15	15	15	18.5
40	36000			7.5	7.5	11	11	15
	40000			11	11	11	15	15
	44000			15	15	15	15	18.5
45	40000			11	11	11	15	15
	45000			11	11	11	18.5	18.5
	49000			15	15	15	18.5	18.5
50	45000			11	15	15	15	15
	50000			15	18.5	18.5	18.5	18.5
	55000			18.5	18.5	18.5	22	22
60	50000			11	15	15	18.5	18.5
	60000			15	18.5	22	22	22
	65000			15	18.5	22	22	22

注：资料若有更改，恕不另行通知，如需获取最新资料，请浏览本公司网站或与本公司联系。
Note: The information is subject to change without prior notice. For the latest information, please visit our website or contact the company.

BF系列箱型通风机组
BF Series Box Ventilation Unit

一、机组简介 I. Unit Introduction

“浩金欧博”牌BF系列通风机，是本公司吸收国内外同类产品之优点，并结合欧、美、日、等国家的先进技术，精心研制成功的一种多功能且适用范围广泛的优质产品。BF系列通风机有12种规格，9种结构形式和电机多种搭配形式等，有直接驱动式和皮带驱动式;电机内置跟电机外置安装形式等，其中直接驱动式有高、中、低三个档次可灵活调节风量。BF系列通风机风量范围从900m³/h至60000m³/h,静压范围从100Pa至800Pa,还可按照客户要求特殊加工制造。

“浩金欧博”牌BF系列通风机，采用前弯曲多叶双进风离心风轮，经静压动平衡校正，效率高，并配置球面轴承，机械运转平稳，噪音低。箱体结构牢固，内外表面喷塑，外形美观，耐腐蚀，防锈性好。

“浩金欧博”牌BF系列通风机具有风量大，静压高，噪音低，机械运行平稳，风机效率高，造型美观，结构牢固，安装方便等特点，广泛应用于商业大厦、宾馆、酒店、地下室、车间厂房等的空气净化及暖通空调换气系统中。

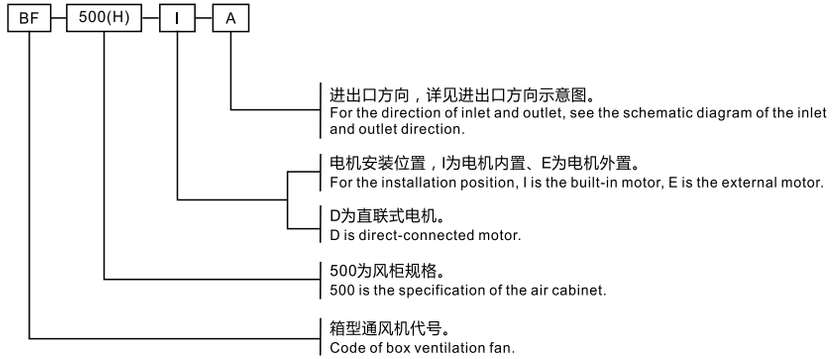
BF series ventilation fan of "Haojin Oubo" brand is a kind of versatile and applicable range that has been carefully developed by the company by absorbing the advantages of similar products at home and abroad and combining the advanced technology of Europe, America, Japan and other countries. For BF series ventilation fan, there are 12 sizes, 9 types of structures and various combinations of motors, including direct drive and belt drive; the built-in motor and the external installation of the motor, etc., of which the direct drive type has three levels of high, medium and low to flexibly adjust the air volume. For BF series fans, the air volume ranges from 900m3/h to 60,000m3/h, and the static pressure ranges from 100Pa to 800Pa. It can also be specially processed according to customer requirements.

The BF series ventilation fan of "Haojin Oubo" brand adopts front curved multi-leaf double-inlet centrifugal wind wheel, which is corrected by static pressure dynamic balance, so that it has high efficiency. Besides, it is equipped with spherical bearings, so that the machine can operate in a smooth and low noise manner. With firm structure and the inner and outer surfaces are sprayed, the box is featured with beautiful appearance, good corrosion resistance and rust resistance.

The BF series ventilation fan of "Haojin Oubo" brand is featured with large air volume, high static pressure, low noise, stable mechanical operation, high fan efficiency, beautiful appearance, firm structure and convenient installation. The BF series ventilation fan is widely used in air purification and HVAC ventilation systems in commercial buildings, guesthouses, hotels, basements, workshops, etc.

BF系列箱型通风机组
BF Series Box Ventilation Unit

二、型号说明 II. Model Description



三、订货需知 III. Notes for Ordering

1、客户在订货时可根据使用工况及要求选用适合的型号、规格和电机功率。

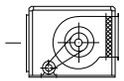
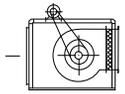
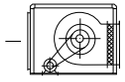
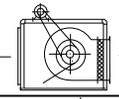
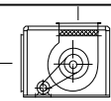
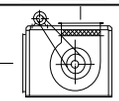
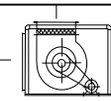
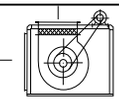
2、如有特殊要求请注明，如尺寸、使用条件及静压要求等。

3、可根据客户需求配电机，或生产各种特殊要求的机组。机组表面喷漆颜色及材质需求客户也可自己选定，在订货注明即可。

4、本公司工程技术人员和销售人员是您最好的订货参谋，将免费为你提供技术咨询，选择方案，并为你作为特殊设计制造。

1. Customers can choose the appropriate model, specifications and motor power according to the working conditions and requirements when ordering.
2. Please specify in case of special requirements, such as size, conditions of use and static pressure requirements.
3. The motor can be equipped according to customer requirements, or the unit with special requirements can be produced. The color of the paint on the surface of the unit and the material requirements can also be selected by the customer.
4. The company's engineering and technical personnel and sales staff are your best order staff, who will provide you with technical suggestions and options, as well as special design for you.

BF系列机组进出风口方向示意图与性能参数表
Schematic Diagram and Performance Parameters Table of Inlet and Outlet of BF Series Unit

型号 Model	进出风方向 Air inlet and outlet direction		简图 Diagram 电机内置(I) Built-in motor (I)	简图 Diagram 电机外置(E) External motor (E)	代号 Code
BF-250 BF-380 BF-320 BF-500 BF-460 BF-630 BF-560 BF-800 BF-710	水平出风 Horizontal air	前进后（上）出 Front inlet and rear (up) outlet			A
		前进后（下）出 Front inlet and rear (down) outlet			B
	上出风 Upward air	前进上（后）出 Front inlet and up (rear) outlet			C
		前进上（前）出 Front inlet and up (front) outlet			D

注：进出风口方向可按用户要求制造、标准为B型。
Note: The direction of the inlet and outlet can be manufactured according to user requirements, and the standard is B type.

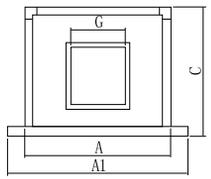
主要技术性能 Main Technical Performance

型号 Model	风量 Air Volume 标准风量 Standard air volume	风量 Air Volume 使用范围 Application	静压 Static pressure 标准静压 Standard static pressure	静压 Static pressure 高静压 High static pressure	噪音 Noise 电机内置 Built-in motor (I)	噪音 Noise 电机外置 External motor (E)	风轮 Wind wheel 直径 Diameter	风轮 Wind wheel 数量 quantity	配电机 Motor equipped 标准静压 Standard static pressure	配电机 Motor equipped 高静压 High static pressure	电源 Power upply
	CMH		Pa		dB(A)		MM		KW		V/FHz
BF-250-D1	2200	900~2200	150	—	58		250	1	0.15	—	220/1/50
BF-250-D2	2200	900~2200	200	—	58		250	1	0.15	—	
BF-250-D3	2500	1200~ 2500	200	—	58		250	1	0.2	—	
BF-250	3500	2400~ 4300	300	—	60	61	250	1	0.75	—	380/3/50
BF-320	6200	4300~ 7600	350	—	62	63	321	1	1.5	—	
BF-380	9000	7600~10000	400	—	63	64	381	1	2.2	—	
BF-460	12000	10000~ 13800	400	—	65	66	460	1	3	—	
BF-500	17000	13800~ 20800	400	700	66	67	508	1	4	7.5	
BF-560	22500	18800~ 25600	450	700	67	68	558	1	5.5	11	
BF-630	30500	25000~ 35000	500	700	68	69	635	1	7.5	15	
BF-710	40000	35000~ 44000	500	700	69	70	698	1	11	18.5	
BF-800	51000	43000~ 57000	500	700	71	72	762	1	15	18.5	

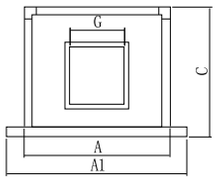
注：机组风量、静压使用范围与电机配置详见24页。
Note: See page 24 for detailed air flow, static pressure range and motor configuration of the unit.

BF系列机组结构及主要尺寸
BF Series Unit Structure and Main Dimensions

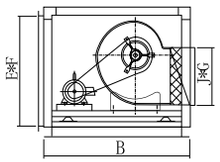
直接驱动 Direct drive

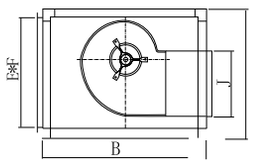


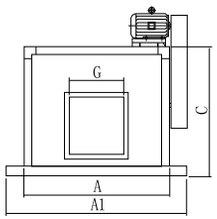
皮带驱动 Belt drive



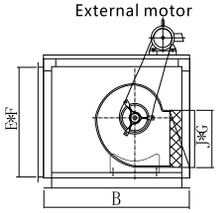
电机内置 Built-in motor







电机外置 External motor



电机内置主要尺寸 Main dimensions of built-in motor：（mm）

型号 Model	长 Length	宽 Width	高 Height	AI	回风口尺寸 Size of return air inlet	送风口尺寸 Size of air supply opening	整机重量 Total weight
	A	B	C		E*F(宽*高) E*F (L*H)	G*J(宽*高) G*J (W*H)	KG
BF-250-D1	650	450	550	810	570*420	242*270	75
BF-250-D2	650	450	550	810	570*420	302*270	75
BF-250-D3	650	450	550	810	570*420	302*270	75
BF-250-I	650	750	650	810	570*520	285*285	95
BF-320-I	700	850	750	860	620*620	360*360	130
BF-380-I	900	950	850	1060	820*720	405*405	170
BF-460-I	950	1100	950	1110	870*820	505*505	190
BF-500-I	1075	1250	1100	1135	995*970	565*565	255
BF-560-I	1400	1500	1250	1560	1320*1107	635*635	330
BF-630-I	1500	1600	1450	1660	1420*1307	715*715	380
BF-710-I	1700	1700	1580	1860	1620*1437	805*805	483
BF-800-I	1850	1850	1680	2010	1770*1537	905*905	520

电机外置式主要尺寸 Main dimensions of external motor：（mm）

型号 Model	长 Length	宽 Width	高 Height	AI	回风口尺寸 Size of return air inlet	送风口尺寸 Size of air supply opening	整机重量 Total weight
	A	B	C		E*F(宽*高) E*F (L*H)	G*J(宽*高) G*J (W*H)	KG
BF-250-E	750	600	550	910	670*420	285*285	100
BF-320-E	800	700	650	960	720/520	360*360	143
BF-380-E	950	800	800	1110	870*670	455*455	180
BF-460-E	1100	950	950	1260	980*770	505*505	210
BF-500-E	1250	1100	1100	1410	1170*970	565*565	250
BF-560-E	1400	1200	1250	1560	1320*1107	635*635	300
BF-630-E	1500	1350	1450	1660	1420*1307	715*715	375
BF-710-E	1700	1450	1450	1860	1620*1307	805*805	471
BF-800-E	1850	1550	1550	2010	1770*1407	905*905	500

BF系列机组风量、静压与电机配置表
Schematic Diagram and Performance Parameters Table of Inlet and Outlet of BF Series Unit

型号 Model	风量 Air Volume	静压 Static pressure(Pa)							
BF-	CMH	150	200	300	400	500	600	700	800
		配电机 Motor equipped (KW)							
250	2400	0.55	0.55	0.75	0.75				
	3500	0.55	0.75	0.75	1.1				
	4300		1.1	1.1	1.5				
320	4300		0.75	1.1	1.1	1.5			
	6200		1.1	1.5	1.5	2.2			
	7600		2.2	2.2	2.2	3			
380	7600		1.1	1.5	1.5	2.2			
	9000		1.5	1.5	2.2	3			
	10000		2.2	2.2	3	3			
460	10000		1.5	2.2	2.2	3			
	12000		2.2	2.2	3	4			
	13800		3	3	4	4			
500	13800		2.2	3	3	4	5.5	5.5	
	17000		3	3	4	5.5	7.5	7.5	7.5
	20800		5.5	5.5	5.5	7.5	7.5	11	11
560	18800			4	5.5	5.5	7.5	7.5	7.5
	22500			5.5	5.5	7.5	7.5	11	11
	25600			7.5	7.5	11	11	11	11
630	25000			5.5	5.5	7.5	7.5	11	11
	30500			5.5	7.5	7.5	11	11	15
	35000			11	11	11	15	15	15
710	35000			7.5	7.5	11	11	15	15
	40000			11	11	11	15	15	18.5
	44000			11	15	15	18.5	18.5	18.5
800	43000		11	11	11	15	15	15	15
	51000		15	15	15	15	18.5	18.5	18.5
	57000		15	15	18.5	18.5	18.5	18.5	18.5

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GXH系列热回收新风换气机组
GXH Series Heat Recovery Fresh Air Ventilation Unit

一、概述 I. Overview

1、热回收新风换气机采用先进的能量回收技术，在将污风排出室外的同时，把蕴涵其中的能量（显热、潜热）转化到新风之中，随新风回到室内。因此，既能排风，又能进新风，解决室内的污染，并保持室内温湿度基本不变。
2、具备多种标准规格，新风量范围由150～30000m3/h，热交换效率达到70%以上。热交换面采用有特殊涂层的铝箔材料，耐腐蚀，防水膜凝结，强度好，超长使用寿命，日常维护简便。
3、机组独特的结构设计，有吊顶式，不占用室内有效空间；有座地式，可放置在机房，噪音低。内置低噪声通风机，机体内壁有新型的吸音隔热材料，全静音设计。
4、机组有全热回收型和显热回收型可供选用；内置专业的空气过滤器能保证送入室内的空气既清新又洁净，过滤器可定期清洗反复使用。
5、机组通过热回收交换器将新鲜的室外空气送入室内，同时将室内污浊的气体排到室外，实现双向换气空气净化、能量回收等功能，吐故纳新，让您有置身大自然的舒适感受。
6、机组适用于会议室、实验室、办公楼、机房、餐饮、酒楼、旅馆、体育馆、商场等舒适性空调系统；也广泛用于电子、化工、医疗卫生、生物制造、机械制造、停车场、地下室等各种空调系统中，代替新风机和排风机用途，更加节能、环保、耐用，并可提升空调现场环境的气派与格调，创造更舒适的工作与生活环境。

1. The heat recovery fresh air ventilator adopts advanced energy recovery technology to exhaust the dirty air and convert the contained air (sensible heat, latent heat) into the fresh air, which will be returned to the indoor. Therefore, it can not only exhaust the air, but also can inlet the fresh air, to solve the indoor pollution, and keep the indoor temperature and humidity basically unchanged.
2. With multiple standard specifications, the fresh air volume ranges from 150 to 30,000m3/h, and the heat exchange efficiency is more than 70%. The heat exchange surface is made of aluminum foil material, which is featured with special coating, corrosion resistance, waterproof membrane condensation, good strength, long service life and easy maintenance.
3. The unit has unique structural design: the suspended ceiling type unit does not occupy the effective space in the room; the ground type unit can be placed in the machine room with low noise. For the built-in low-noise ventilator fan, the inner wall is equipped with a new sound-absorbing and heat-insulating material, which is completely sound insulation.
4. The unit is provided with full heat recovery type and sensible heat recovery type; the built-in professional air filter can ensure that the air sent into the room is fresh and clean, and the filter can be cleaned and reused regularly.
5. The fresh outdoor air is sent into the room by the unit through the heat recovery exchanger, and the waste gas in the room is discharged to the outside, to realize the functions of two-way ventilation, air purification, energy recovery, etc. By getting rid of the waste gas and taking in the fresh, you can feel the comfort of nature.
6. The unit is suitable for comfortable air conditioning systems such as conference rooms, laboratories, office buildings, computer rooms, restaurants, restaurants, hotels, stadiums, shopping malls, etc. It is also widely used in various air conditioning systems such as electronics, chemicals, medical and health, bio-manufacturing, machinery manufacturing, parking lots, basements, etc. The unit can replace the use of fresh air handling units and exhaust fans, is more energy-saving, environmentally friendly, durable, and can improve the style and style of the air-conditioning field environment, creating a more comfortable working and living environment.

GXH系列热回收新风换气机组
GXH Series Heat Recovery Fresh Air Ventilation Unit

热回收新风换气机组
Heat Recovery Fresh Air Ventilation Unit

二、机组特点 II. Features of Unit

1、机组风机为双进风、双宽度前倾离心风机，经严格的静平衡、动平衡和整机动平衡检验，平衡度不低于IS01940-G4.0标准。
2、机组风机采用锥套轴承以减少像一般偏心锁轴承所引发的振动问题，轴承在设计工况下使用寿命大于75000小时。
3、机组风机的主要部件：叶轮、轴、蜗壳、热交换芯在正常使用情况下寿命不小于15年。
4、机组电机为全封闭三相异步电机。
5、整机运行噪声低、效率高、结构强劲、性能稳定。

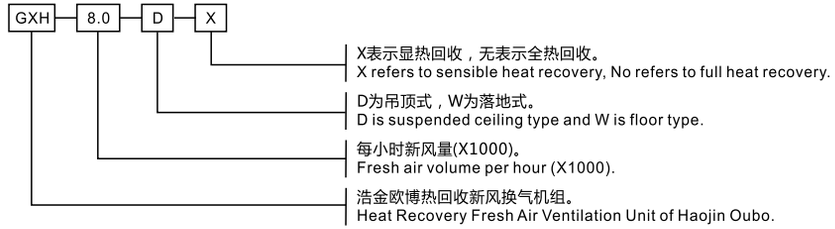
1. The unit fan is a double-inlet, double-width forward-inclined centrifugal fan. After strict static balance, dynamic balance and complete maneuver balance test, the balance is not lower than IS01940-G4.0.
2. A taper sleeve bearing is adopted for the unit to reduce the vibration problem caused by the general eccentric locking bearing. The service life of the bearing under design conditions is more than 75,000 hours.
3. The main components of the unit fan: impeller, shaft, volute, heat exchange core, with the service life under normal use not less than 15 years.
4. The unit motor is a fully enclosed three-phase asynchronous motor.
5. The whole unit is featured with low noise, high efficiency, strong structure and stable performance.

三、订货须知 III. Order Notices

1、客户在订货时注明机组的型号规格。
2、机组的表面为米色，需要其它颜色订货时注明。

1. The customer shall indicate the model specifications of the unit when ordering.
2. The surface of the unit is beige and should be indicated in case of ordering other colors.

四、型号说明 IV. Model Description



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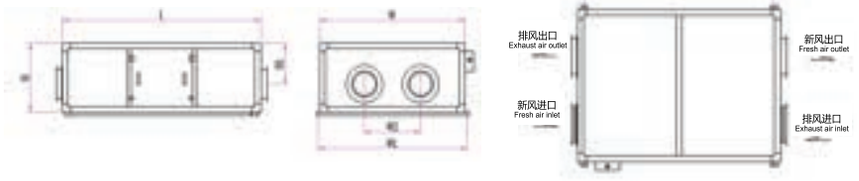
GXH系列热回收新风换气机组(吊顶式)
GXH Series Heat Recovery Fresh Air Ventilation Unit (Suspended Ceiling Type)

技术参数表 Technical Parameter

型号 Model		GXH-1.5-D	GXH-3.5-D	GXH-5.0-D	GXH-8.0-D	GXH-10-D	GXH-15-D	GXH-20-D	GXH-25-D	GXH-30-D	GXH-40-D	GXH-50-D	GXH-60-D
新风量 Fresh air volume (m³/h)		150	350	500	800	1000	1500	2000	2500	3000	4000	5000	6000
机外余压 Excess pressure outside the unit (Pa)		75	90	100	120	125	163	176	200	210	260	260	300
焓回收率 Temperature recovery rate (%)	夏季 Summer	60	64	60	62	62	66	62	61	60	62	61	60
	冬季 Winter	70	68	65	70	70	70	71	70	69	69	64	62
温度回收率 Temperature recovery rate (%)		75	73	72	73	73	71	71	70	70	70	70	68
噪声 Noise dB(A)		44	49	51	56	56	52	56	60	61	59	68	70
电源 Power supply		220V/1PW50HZ(三档调速Three-speed control)					380V/3PH/50Hz						
消耗功率 Power consumption (W)		60	60	110	250	336	500	640	740	1100	1500	2200	3000
净重 Net weight (Kg)		35	40	43	71	83	120	120	160	165	285	360	365

外形尺寸及安装示意图 Dimensions and installation diagram



型号 Model	GXH-1.5-D	GXH-3.5-D	GXH-5.0-D	GXH-8.0-D	GXH-10-D	GXH-15-D	GXH-20-D	GXH-25-D	GXH-30-D	GXH-40-D	GXH-50-D	GXH-60-D
L	800	800	900	1100	1200	1200	1250	1250	1400	1450	1700	1800
L1	750	750	850	1050	1150	1150	1200	1200	1350	1400	1650	1750
W	650	650	750	800	850	850	1000	1100	1200	1200	1500	1600
W1	700	700	800	850	900	900	1050	1150	1250	1250	1550	1650
W2	320	320	350	400	500	600	600	650	700	750	800	850
H	220	220	280	390	410	410	450	450	530	600	640	640
H1	130	130	140	195	280	300	300	280	210	285	240	270
进出风口 Air inlet and outlet	Φ125	Φ125	Φ145	Φ195	Φ195	280*200	300*250	300*250	350*300	350*300	400*300	450*400

GXH系列热回收新风换气机组(落地式)
GXH Series Heat Recovery Fresh Air Ventilation Unit (Floor type)

特点：

1、机组采用落地式安装方式，可放置在设备机房中或置于室外，通风区噪声极小；

2、电控箱可附着在设备上，也可与设备分离实现远距离控制，位置可由用户自定；

3、新风量和排风量各为8000-30000m3/h；

4、适用于游泳管、车间、地下车库、大型超市、剧场、商场、写字楼、餐厅等场所使用；

Features:

1.Floor installation is adopted for the unit, which can be placed in the equipment room or placed outdoors, and the noise in the ventilation area is extremely low;

2.The electric control box can be attached to the device or separated from the device to achieve remote control, and the position can be customized by the user;

3.The fresh air volume and the exhaust air volume are respectively 8,000-30,000m3/h;

4.The unit is suitable for use in swimming pools, workshops, underground garages, large supermarkets, theaters, shopping malls, office buildings, restaurants, etc.

技术参数表（落地式）Technical Parameter (Floor type)

型号 Model		GXH-70-W	GXH-80W	GXH-100-W	GXH-120-W	GXH-150-W	GXH-200-W	GXH-250-W	GXH-300-W
新风量 Fresh air volume(m³/h)		7000	8000	10000	12000	15000	20000	25000	30000
机外余压 Excess pressure outside the unit (Pa)		290	290	340	380	420	480	480	500
焓回收率 Temperature recovery rate %	夏季 Summer	64	64	62	62	65	65	64	64
	冬季 Winter	68	68	70	70	68	69	70	68
温度回收率 Temperature recovery rate (%)		72	69	71	68	68	70	71	72
噪声 Noise dB(A)		74	76	76	74	78	78	80	80
消耗功率 Power consumption (W)		4400	4400	6000	8000	5.5KW*2	7.5KW*2	7.5KW*2	11KW*2
电源 Power supply		380V/3PH/50Hz							
净重 Net weight (Kg)		380	420	450	520	560	680	700	740
外形尺寸 Boundary dimensions (mm)	长 Length	2000	2000	2100	2200	2400	2400	2700	3000
	宽 Width	1700	1800	1900	2000	2000	2100	2200	2800
	高 Height	850	850	880	900	1130	1130	1130	1300
进出风口尺寸 Dimensions of air inlet and outlet (mm)	宽 Width	600	600	600	600	800	800	800	1000
	高 Height	400	400	500	500	500	500	800	800

选型说明 Description for Model Selection

确定房间所需新风量时，应根据房间空间大小及室内人数综合考虑。下表为舒适性房间所需的新风量。

When the fresh air volume in a room is determined, it is required to consider according to room size and indoor space personnel quantity. The table below lists the fresh air volume required for a comfortable room.

房间类型 Room types		不吸烟 No smoke			少量吸烟 Less smoke		大量吸烟 Heavy smoke
	一般病房 General ward	体育馆 Gymnasium	影剧院、商场 Theaters and shopping malls	办公室 Office	计算机房 Computer room	餐厅 Restaurant	高级客房 Superior room	会议室 Conference
每人新风量(m³/h) Fresh air volume per personnel	17-42	8-20	9-21	25-62	40-100	20-50	30-75	50-125
换气次数(次/h) Ventilation rate (times/h)	1.1-2.6	0.5-1.2	1.1-2.7	1.6-3.9	2.5-6.2	1.2-3.1	1.9-4.7	3.1-7.8

根据上表推荐数据分别按“每人新风量”和“换气次数”计算出新风量，取二者中较大值，作为选型依据。

According to the recommended data in the above table, the fresh air volume is calculated according to the "fresh air volume per person" and the "ventilation rate", and the larger of the two is used as the basis for selection.

机组安装及使用说明
Unit Installation and Instructions

机组安装 Unit installation

1、机组四周，应留有足够的空间供设备维护（一般不少于0.8m），检查维修设备时使用：
2、吊顶机组需水平安装，落地式机组应安置在高于机房地面大于200300mm的平整水泥或工字钢焊接而成的基础上：基础长和宽应比机组外形尺寸各大200mm；空调安装基础由客户自备；
3、落地式机房内应设有地漏，以便机组冷凝水排放或清洗机组时排污；
4、机组的电机电源：1000m³/h以下的为220V/1PH/50HZ直接驱动，其余的都是380V/3PH/50HZ交流电，先检查电源电压符合要求后，方可接入电机，然后启动一下电机，检查风机转向是否正确，如转向不正确，应停机，将电源相序对正后方可与电机接好；
5、机组电源应配有与机组相适应的启动器及过载保护装置，11KW以下的电机可直接启动，11KW以上的电机应另行配置降压启动装置。

1. There should be enough space around the unit for equipment maintenance (generally not less than 0.8m) for inspection and maintenance of equipment:
2. The suspended ceiling unit needs to be installed horizontally. The floor unit should be placed on the basis of welding of flat cement or I-beam higher than 200-300mm on the ground of the machine room: the foundation length and width should be 200mm larger than the boundary dimensions; the air conditioning installation base should be provided by the customer;
3. Floor drains shall be provided in the floor equipment room to allow the unit to discharge condensate or to drain the unit when cleaning the unit;
4. The motor power of the unit: 220V/1PH/50HZ direct drive below 1,000m3/h, the rest are 380V/3PH/50HZ AC. The motor can be connected to the unit after checking that the power supply voltage to meet the requirements, and the motor is started to check if the fan is turning correctly. If the turning is not correct, the motor shall be stopped, and the motor can be connected after the power phase sequence is aligned;
5. The unit power supply should be equipped with a starter and overload protection device that is compatible with the unit. The motor below 11KW can be started directly, while the motor above 11KW should be equipped with a step-down starting device.

机组应用 Unit Application

1、机组应由专业人员专职管理运行，定期检查机组的运行状况，发现异常情况应及时排除故障排除后方可继续运行；
2、在机组的检修过程中，必须断开电源，并且在断开电源处，留下明显的标志；
3、风机正常运行后轴承温升不应超过45°C ,空气进口温度不超过80°C。

1. The unit should be managed by a professional staff, and the unit's operating status should be checked regularly. In case of abnormal conditions, the fault should be eliminated in time to continue operation;
2. During the maintenance of the unit, the power must be disconnected and a clear sign should be left at the disconnection of the power supply;
3. After the fan is in normal operation, the bearing temperature rise should not exceed 45 °C, and the air inlet temperature should not exceed 80 °C.

机组维护 Unit Maintenance

1、机组运行一个月后，应检查皮带松紧程度及螺栓是否有松动现象，如有松动，应及时将电机及风机轴承固定螺栓重新调整紧固，使皮带松紧程度适宜；
2、日常维护，轴承每季应注入适量润滑脂；
3、每次检修后，应更换润滑脂：每年必须清洗电机、风机轴承，必要时更换；
4、定期清除过滤网及气体输送管道内部的灰尘，污垢及水等物质，以防锈蚀。

1. After the unit is operated for one month, the tightness of the belt and the looseness of the bolts should be checked. In case of looseness, the motor and fan bearing fixing bolts should be re-adjusted and tightened in time to ensure appropriate belt tightness:
2. For daily maintenance, the bearings should be filled with appropriate amount of grease every season:
3. After each inspection, the grease should be replaced: the motor and fan bearings must be cleaned every year and replaced if necessary;
4. The dust, dirt and water from the filter and gas transmission pipes shall be regularly removed to prevent corrosion.

ZKW系列组合式空调机组
Unit Installation and Instructions

一、概述 I. Overview

欧博空调ZKW系列组合式空气处理机组是我公司在吸收国内外先进空调技术基础上，按GB/T14294-2008“组合式空调机组”设计制造，功能齐全，性能优越，是现代空调领域中新型产品。

欧博空调ZKW系列组合式空气处理机组可根据客户要求提供多种功能组合，可广泛应用于地铁、展览中心、机场、写字楼、宾馆、饭店、影剧院、商场、体育馆、国际行政机关、电子、精密机械、涂装、药厂、食品、烟草等场合。

ZKW series combined air handling unit of Oubo Air Conditioning is manufactured according to GB/T14294-2008 "combined air conditioning unit" based on the absorption of advanced air conditioning technology at home and abroad. Therefore, the unit is featured with complete functions and superior performance, which is the new type product in modern air conditioning field.

A variety of functional combinations of ZKW series combined air handling unit of Oubo Air Conditioning can be provided according to customer requirements. The unit can be widely used in subways, exhibition centers, airports, office buildings, hotels, restaurants, cinemas, shopping malls, stadiums, international administrative agencies, electronics, precision machinery, painting, pharmaceutical factories, food, tobacco and other occasions.

二、型号说明 II. Model Description

ZKW — 20 — W — T

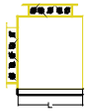
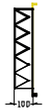
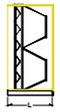
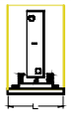
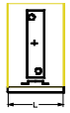
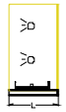
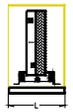
- T：机组类型：T为非标准型，标准型见技术参数表。 Unit type: T is non-standard type, see Technical Parameter for the standard type.
- W：安装型式 W：卧式，V ：立式，D：吊顶式。 Installation modes: W: horizontal V: vertical and D: suspended ceiling.
- 20：名义风量：数字×1000m3/h。 Nominal air volume: figure * 1,000 m3/h.
- ZKW：欧博组合式空气处理机组。 Combined air handling unit of Oubo.

三、订货须知 III. Ordering Notices

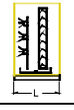
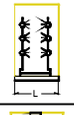
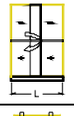
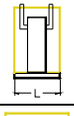
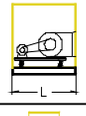
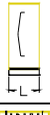
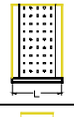
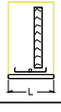
1、欢迎使用本公司ZKW系列组合式空气处理机组，本公司奉行质量第一，用户至上的宗旨，免费为您的工程提供咨询，可协助您的选择最佳组合方案，如有特殊要求，本公司也可为您进行专门设计、制造。机组电气控制系统可按订货需求选配。
2、请说明所订机组进出水管的方向。机组左右机型划分基准：面对机组回风口，进出水管及检修门在左手侧为左机，反之为右机。
3、本公司的机组为优质彩钢面板，标准面板颜色为米白色，如需天蓝色面板，请在订货时注明。
4、用户向我公司驻各地办事处直接订货，可为用户代办包装托运。

1. Welcome to use our company's ZKW series combined air handling unit. Oubo pursues the tenet of "quality first, user supreme" and provides free consultation for your project. We can assist you in selecting and combining solutions. If you have special requirements, we can also design and manufacture for you. The electrical control system of the unit can be selected according to the ordering requirements.
2. Please indicate the direction of the unit's inlet and outlet pipes. Division benchmark for the left and right models of unit: Take the direction facing the return air inlet as the reference, the unit with the inlet and outlet pipes and the access door on the left is the left motor and vice versa.
3. The company's unit is a high-quality color steel panel and the standard panel color is beige; if you need a sky blue panel, please specify when ordering.
4. The user orders from the offices of our company, and package consignment can be handled for the user.

功能段说明
Function Section Description

功能名称 Function name	简图 Diagram	尺寸（MM)(仅供参考） Dimensions (MM) (for reference only)
混合段 Mixing section		机组规格Unit specification: L ZKW-05~10: 600 ZKW-15~30: 600 ZKW-35~60: 800 ZKW-70~100: 1000
外置过滤段 Handling filter section		装在箱体外部，不占用空段。 Installed outside the box, which does not occupy empty sections.
板式过滤器 Plate filter		L=100 板式过滤器有初效及中效供选择，可置于混合段内，或外置不单独占用空间。 Plate filter is available in both primary and intermediate options and can be placed in the mixing section or externally.
袋式过滤器 Bag filter		袋式过滤器 Bag filter L=500
表冷段 Surface cooling section		机组规格Unit specification: L(1-6排row): 500; L(8-12排row): 700 ZKW-05~30: 500 / 700 ZKW-35~60: 700 / 800 ZKW-70~100: 900 / 1000
加热段 Heating section		机组规格Unit specification: L(1-2排row) ZKW-05~60: 300 ZKW-70~100: 600 对于小于6D的机型，若加热段位于不大于8排的表冷段后，且冷热盘管间不需修，可将冷热盘管置于同一水盘中，共占900段长。 For the models with specification less than 6D, if the heating section is located in the surface cooling section of no more than 8 rows, and there is no need for maintenance between the hot and cold coils, the hot and cold coils can be placed in the same water tray, which together account for 900 sections.
电加热段 electrical heating section		T: L <10: 300 =10: 500 T=电热量（W)/风量（CMH) T=heating capacity（W）/air volume（CMH）
蒸汽加湿段 Steam humidification section		L=600 若放在风机段之后要求 900 In case of being placed behind the fan section, it is required to be 900.
湿膜加湿段 Wet film humidification section		装在表冷段，不占用单独的段，如果单独放置，需600段长。 Installed in the surface cooling section of the watch, which does not occupy a separate section; if it is placed separately, it needs 600 sections long.

功能段说明
Function Section Description

功能名称 Function name	简图 Diagram	尺寸（MM)(仅供参考） Dimensions (MM) (for reference only)
高压喷雾加湿段 High pressure spray humidification section		L=1200 需加挡水板 Water separator needs to be attached
喷淋段 Spraying section		L 单排 Single row: 2200 双排/三排 Double-row / treble-row: 2200
热回收段 Heat recovery section		L根据具体情况另行选定 L is selected separately according to the specific circumstances
除湿段 Dehumidification section		L根据具体情况另行选定 L is selected separately according to the specific circumstances
风机段 Fan section		机组规格 Unit specification L=700-2800 详见各功能段尺寸表 See the function table size table for details
均流段 Equalized flow section		L=600
消音段 Silencing section		L=600,1200 两种供选 for selection
中间段 Middle section		L=600 在过滤器、表冷段、加热段、消间段等功能段前，为了维护和检修方便，有必要加中间段。 Before the functional sections such as the filter, the surface cooling section, the heating section, and the elimination section, it is necessary to add the intermediate section for the convenience of maintenance and overhaul.
出风段 Air outlet section		机组规格Unit specification: L ZKW-05~10: 500 ZKW-15~30: 700 ZKW-35~60: 800 ZKW-70~100: 1000
挡水板段 Water separator section		装在表冷段，不占空段。 Installed in the surface cooling section, which does not occupy any empty section.

冷水盘管性能参数表
Performance Parameter Table for Cold Water Coil

机组型号 Unit model ZKW-	额定风量 Rated air volume m³/h	新风工况 Fresh air condition						回风工况 Return air condition					
		4排rows		6排rows		8排rows		4排rows		6排rows		8排rows	
		显冷量 Sensible cooling capacity	全冷量 Full cooling capacity	显冷量 Sensible cooling capacity	全冷量 Full cooling capacity	显冷量 Sensible cooling capacity	全冷量 Full cooling capacity	显冷量 Sensible cooling capacity	全冷量 Full cooling capacity	显冷量 Sensible cooling capacity	全冷量 Full cooling capacity	显冷量 Sensible cooling capacity	全冷量 Full cooling capacity
		kw	kw	kw	kw	kw	kw	kw	kw	kw	kw	kw	kw
02	2000	9.8	22.1	11.6	28.7	12.8	32	8.4	12.6	10.4	16.1	11.2	17.6
03	3000	16.1	33.2	20.9	48.4	22.7	52.8	13.2	16.4	16.3	22.2	18.6	25.4
04	4000	25.3	56.1	31.6	72.2	32.4	77.4	19.6	27.4	25.4	33.8	28.4	37.4
05	5000	27.6	58.2	34.1	81.1	38.7	90	22.4	28.5	28.6	38.1	33.3	43.7
06	6000	32.8	69.3	40.6	96.5	46.1	107.1	26.7	33.9	34	45.3	39.5	52
07	7000	41.1	91.2	50.8	120	52	126	31.4	39.9	40	53.3	46.5	61.2
08	8000	44.2	93.1	54.6	129.8	61.9	144	35.8	45.6	45.8	61	53.1	69.9
09	9000	49.7	104.8	61.4	146	69.7	162	40.3	51.3	51.5	68.6	59.8	78.7
10	10000	61	132.7	77.8	179	84.6	196.4	45.7	61.4	53.2	74.6	61	82.2
12	12000	76.3	165.9	97.3	223.8	105.8	245.5	57.1	76.8	66.5	93.3	76.3	102.8
14	14000	91.5	199.1	116.7	268.5	126.9	294.6	68.6	92.1	79.8	111.9	91.5	123.3
16	16000	100.7	219	128.4	295.4	139.6	324.1	75.4	101.3	87.8	123.1	100.7	135.6
18	18000	115.9	259	147.8	327	160.7	356	86.8	121	109	152	121	164
20	20000	127.5	284.9	162.6	359.7	176.8	391.6	95.5	133.1	119.9	167.2	133.1	180.4
25	25000	146	339	174.2	389.3	186	442	114.2	160	136.2	195.2	152.2	212.8
30	30000	176.2	407	200	487.2	226.2	524.4	126.2	185	156.6	231.2	172.4	243.6
35	35000	206	492	251.2	582.4	266	622.7	158	223	190	273.2	192.4	297.8
40	40000	227.1	526.3	271.1	634.7	294.6	687.6	168.6	244.2	205.2	306.2	218.4	344.6
45	45000	254.2	586	297.4	692.4	324	746.6	184.6	276.2	222.1	352	244.8	384
50	50000	290	676.2	342.2	807.2	376.4	881.4	206.4	307	254.6	396.2	274.6	428.6
60	55000	301	687.6	365.8	892.4	392	967.2	244.4	369.7	306.2	472.5	327	514
70	70000	336.2	774.4	396	989.8	433	1092	287.2	431.2	356.2	552	382.2	598.6
80	80000	384.7	878.2	454.2	1136	497	1247	331	489.8	407	628.6	438.5	687
90	90000	432	986	512.2	1282.2	556	1388	371.2	556.4	464	712	496.6	772.4
100	100000	475.7	1102	566.2	1421.1	617.4	1562	409.2	616.5	516.6	786.8	547.6	862.4
120	120000	576.2	1316	679.2	1697.2	743.2	1858	492	736.2	613.5	943.3	635	1028
140	140000	672	1532.4	79808	1984	873	2196	574.6	858.6	805	1104	771.2	1199
160	160000	762.4	1754.4	912	2273.4	987.6	2487	657.4	984	814.3	1256.5	872	1374
180	180000	862	1968	1021	2552	1116	2821	743.8	1108	913.6	1416	984	1542
200	200000	958.2	2188	1134	2832	1239	3114	822.4	1227.6	1016	1574	1097	1716

注：

1、机组额定工况：供冷：回风工况：进风干球温度27℃，湿球温度19.5℃，冷冻水进出温度7/12℃。
新风工况：进风干球温度35℃，湿球温度28℃，冷冻水进出温度7/12℃，盘管迎面风速2.5m/s。

2、以上参考数仅供参考，若工况改变、盘管回路排布的差异会导致制冷量的不同，具体数据请与公司联系。

Note:

1. Rated working condition of the unit: Cooling: return air condition: inlet air dry bulb temperature is 27 °C, wet bulb temperature is 19.5 °C, and chilled water inlet and outlet temperature is 7/12 °C.
Fresh air conditions: inlet air dry bulb temperature is 35 °C, wet bulb temperature is 28 °C, chilled water inlet and outlet temperature is 7 / 12 °C, and the coil oncoming air speed is 2.5 m / s.

2. The above reference numbers are for reference only. If the working conditions change and the difference in the layout of the coil circuit will result in different refrigerating capacity, please contact the company for specific data.

加热盘管性能参数表
Performance Parameter Table for Heating Coil Pipe

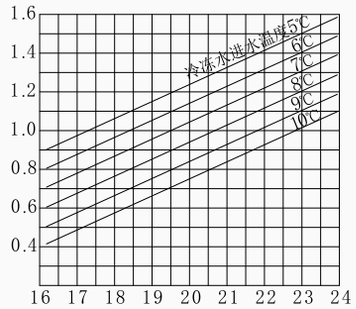
表列数据位每1000m³/h风量通过盘管时，所能提供的最大供热能力，单位KW。
The table data is the maximum heating capacity that can be provided when the air volume per 1,000m3/h passes through the coil, (Unit: KW)

盘管类型 Coil pipe type	盘管排数 Number of coil rows	热媒参数 Heating medium parameter	盘管进风温度 Coil inlet air temperature											
			-15	-10	-5	0	5	7	10	15	17	19	21	23
热水盘管 Hot water coil	2排 rows	42℃	6.95	6.32	5.79	5.27	4.62	4.16	4.01	3.52	3.18	2.99	2.84	2.6
		50℃	9.14	8.31	7.62	6.93	6.08	5.48	5.28	4.63	4.19	3.93	3.74	3.42
		60℃	10.63	9.82	9.01	8.27	7.64	6.75	6.83	6.12	5.83	5.49	5.16	4.87
		70℃	12.24	11.43	10.6	9.76	9.18	8.12	8.32	7.68	7.37	6.98	6.82	6.38
		90℃	13.46	12.87	12.31	11.63	11	10.83	10.28	9.66	9.43	9.18	8.87	8.66
	4排 rows	42℃	10.72	9.4	8.94	8.09	7.17	6.78	6.21	5.43	5.11	4.76	4.42	4016
		50℃	14.1	12.37	11.76	10.64	9.43	8.92	8.17	7.14	6.73	6.26	5.82	5.47
		60℃	16.52	15.38	14.16	12.89	11.76	11	10.46	9.82	9.37	8.86	8.42	7.86
		70℃	18.76	17.43	16.52	15.41	14.16	13.14	12.87	12.17	11.86	10.64	10.18	9.74
		90℃	21.92	20.86	19.92	18.83	17.76	17.28	16.68	15.63	15.16	14.85	14.38	13.96
	6排 rows	42℃	14.72	11.4	10.5	9.3	8.38	8.09	7.12	6.2	5.87	5.44	5.12	4.68
		50℃	19.37	15	13.81	12.24	11.02	10.65	9.37	8.16	7.73	7.16	6.74	6.16
		60℃	20.55	17.76	16.42	15.05	13.86	13.17	12.23	11.16	10.73	10.24	9.55	8.97
		70℃	21.76	20.54	19.13	17.76	16.54	15.87	15.12	14.07	13.55	13	12.42	11.77
		90℃	26.31	25.14	23.76	22.64	21.34	20.85	19.98	18.76	18.33	17.84	17.42	16.75
蒸汽盘管 Steam coil	1排 rows	0.2mpa	6.2	6.0	5.8	5.6	5.2	5.1	5.0	4.8	4.7	4.6	4.5	4.2
		0.3mpa	6.8	6.5	6.3	6.1	5.7	5.6	5.5	5.2	5.1	5.0	4.9	4.6
	2排 rows	0.2mpa	11.2	10.8	10.4	10.0	9.3	9.2	9.0	8.8	8.7	8.5	8.2	8.0
		0.3mpa	12.2	11.8	11.3	10.9	10.1	10.0	9.8	9.6	9.5	9.3	8.9	8.7

盘管迎面风速2.5m/s,热水进出水温差5°C。
The face air speed of the coil is 2.5m/s and the hot water inlet and outlet water temperature difference is 5 °C.

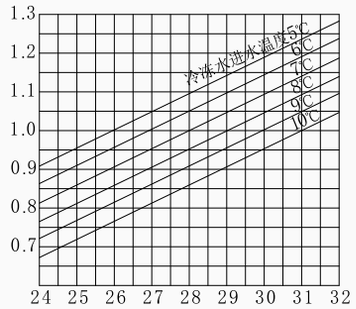
盘管供冷量修正系数 Correction factors for coil cooling capacity

回风工况冷量修正系数Ct
Correction factors for return air cooling condition ct



盘管进风湿球温度℃
Coil inlet air wet bulb temperature °C

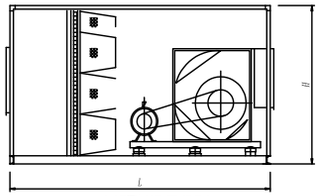
新风工况冷量修正系数Ct
Cooling correction factor for fresh air condition Ct



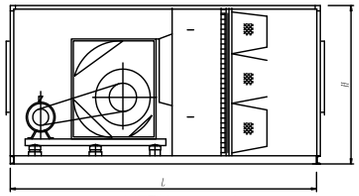
盘管进风湿球温度℃
Coil inlet air wet bulb temperature °C

组合式空调机组 Combined Air Conditioning Unit

标准型组合方式
Standard Combination Mode



（JF型/JF TYPE）



（JZ型/JZ TYPE）

标准型组合方式（JF型）Standard combination mode (JF type)

功能段：混合段、初、中效过滤段、风机段。
Functional sections: mixing section, initial efficiency and medium efficiency filter section, and fan section.

机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit	机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit
	m³/h	m³/h	L mm	W mm	H mm		m³/h	m³/h	L mm	W mm	H mm
ZKW-02	2000	2000~2400	2300	850	830	ZKW-30	30000	27500~32000	3400	2250	2030
ZKW-03	3000	2500~3400	2300	1050	930	ZKW-35	35000	32500~37000	3600	2250	2030
ZKW-05	5000	4500~5400	2300	1050	930	ZKW-40	40000	37500~42000	3600	2700	2200
ZKW-06	6000	5500~6400	2300	1050	930	ZKW-45	45000	42500~47000	3800	2700	2200
ZKW-08	8000	7500~8400	2800	1250	1130	ZKW-50	50000	47500~52000	3800	2700	2600
ZKW-10	10000	9500~11000	3000	1550	1130	ZKW-60	60000	52500~63000	4200	3400	2600
ZKW-12	12000	11500~13000	3000	1550	1230	ZKW-70	70000	64000~73000	4200	3400	2600
ZKW-15	15000	13500~16000	3000	1750	1330	ZKW-80	80000	74000~83000	4200	4000	2800
ZKW-20	20000	16500~22000	3000	2050	1530	ZKW-100	100000	94000~105000	4600	4000	3500
ZKW-25	25000	22500~27000	3200	2050	1730	ZKW-120	120000	11000~125000	4600	4600	3500

标准型组合方式（JZ型）Standard combination mode (JZ type)

功能段：风机段、均流段、初、中效过滤段、出风段。
Functional sections: fan section, equalized flow section, initial efficiency and medium efficiency filter section, and air-out section.

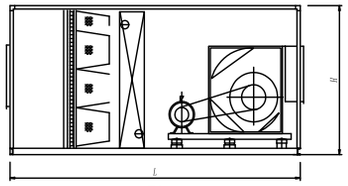
机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit	机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit
	m³/h	m³/h	L mm	W mm	H mm		m³/h	m³/h	L mm	W mm	H mm
ZKW-02	2000	2000~2400	2600	850	830	ZKW-30	30000	27500~32000	3400	2250	2030
ZKW-03	3000	2500~3400	2600	1050	930	ZKW-35	35000	32500~37000	3600	2250	2030
ZKW-05	5000	4500~5400	2600	1050	930	ZKW-40	40000	37500~42000	3600	2700	2200
ZKW-06	6000	5500~6400	2600	1050	930	ZKW-45	45000	42500~47000	3800	2700	2200
ZKW-08	8000	7500~8400	2800	1250	1130	ZKW-50	50000	47500~52000	3800	2700	2600
ZKW-10	10000	9500~11000	3000	1550	1130	ZKW-60	60000	52500~63000	4200	3400	2600
ZKW-12	12000	11500~13000	3000	1550	1230	ZKW-70	70000	64000~73000	4200	3400	2600
ZKW-15	15000	13500~16000	3000	1750	1330	ZKW-80	80000	74000~83000	4200	4000	2800
ZKW-20	20000	16500~22000	3000	2050	1530	ZKW-100	100000	94000~105000	4600	4000	3500
ZKW-25	25000	22500~27000	3200	2050	1730	ZKW-120	120000	11000~125000	4600	4600	3500

注Note:

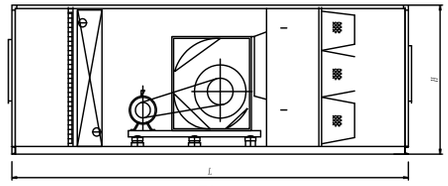
1、表列机组外形尺寸仅供设计人员参考，不作为订货及验收依据；
2、用户可根据需求增加功能段，具体变化尺寸可与我司技术部门取得联系；
3、机组进风风口尺寸及位置可根据用户需求制定；
4、规格参数如因产品改良而更改，恕不另行通知，请以具体订货为准。

1.The external dimensions of the listed units are for reference only by the designer and shall not be used as the basis for ordering and acceptance;
2.Users can add functional sections according to their needs. You can contact our technical department for specific dimensions;
3.The dimensions and positions of the inlet vents of the unit can be determined according to user needs;
4.Specifications are subject to change for the product improvement without prior notice and to the specific order.

标准型组合方式
Standard Combination Mode



（LJF型/LJF type）



（LJZ型/LJZ type）

标准型组合方式（LJF型）Standard combination mode (LJF type)

功能段：混合段、初、中效过滤段、表冷段、风机段。
Functional sections: mixing section, initial efficiency and medium efficiency filter section, surface cooling section, and fan section.

机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit	机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit
	m³/h	m³/h	L mm	W mm	H mm		m³/h	m³/h	L mm	W mm	H mm
ZKW-02	2000	2000~2400	2850	850	830	ZKW-30	30000	27500~32000	4000	2250	2030
ZKW-03	3000	2500~3400	2850	1050	930	ZKW-35	35000	32500~37000	4200	2250	2030
ZKW-05	5000	4500~5400	2850	1050	930	ZKW-40	40000	37500~42000	4200	2700	2200
ZKW-06	6000	5500~6400	2850	1050	930	ZKW-45	45000	42500~47000	4400	2700	2200
ZKW-08	8000	7500~8400	2850	1250	1130	ZKW-50	50000	47500~52000	4400	2700	2600
ZKW-10	10000	9500~11000	3600	1550	1130	ZKW-60	60000	52500~63000	4600	3400	2600
ZKW-12	12000	11500~13000	3600	1550	1230	ZKW-70	70000	64000~73000	4800	3400	2600
ZKW-15	15000	13500~16000	3600	1750	1330	ZKW-80	80000	74000~83000	5000	4000	2800
ZKW-20	20000	16500~22000	3600	2050	1530	ZKW-100	100000	94000~105000	5400	4000	3500
ZKW-25	25000	22500~27000	3800	2050	1730	ZKW-120	120000	11000~125000	5400	4600	3500

标准型组合方式（LJZ型）Standard combination mode (LJZ type)

功能段：混合段、初效过滤段、表冷段、风机段、均流段、中效过滤段、出风段。
Functional sections: mixing section, initial filter section, surface cooling section, fan section, equalized flow section, medium efficiency filter section, and air-out section.

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ZKW-06	6000	5500~6400	4000	1050	930	ZKW-45	45000	42500~47000	6000	2700	2200
ZKW-08	8000	7500~8400	4000	1250	1130	ZKW-50	50000	47500~52000	6000	2700	2600
ZKW-10	10000	9500~11000	4600	1550	1130	ZKW-60	60000	52500~63000	6200	3400	2600
ZKW-12	12000	11500~13000	4600	1550	1230	ZKW-70	70000	64000~73000	6400	3400	2600
ZKW-15	15000	13500~16000	4600	1750	1330	ZKW-80	80000	74000~83000	6600	4000	2800
ZKW-20	20000	16500~22000	4600	2050	1530	ZKW-100	100000	94000~105000	7000	4000	3500
ZKW-25	25000	22500~27000	4800	2050	1730	ZKW-120	120000	11000~125000	7000	4600	3500

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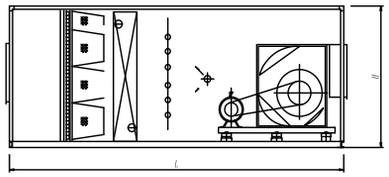
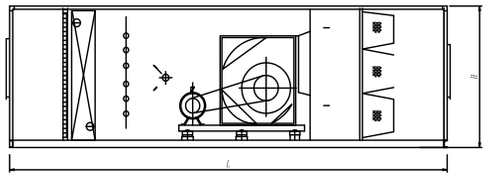
3.The dimensions and positions of the inlet vents of the unit can be determined according to user needs;
4.Specifications are subject to change for the product improvement without prior notice and to the specific order.

标准型组合方式
Standard Combination Mode



（HJF型/HJF TYPE）



（HJZ型/HJZ TYPE）

标准型组合方式（HJF型）Standard combination mode (JF type)

功能段：混合段、初、中效过滤段、表冷段、加热段、加湿段、风机段。
Functional sections: mixing section, initial efficiency and medium efficiency filter section, and fan section.

机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit	机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit
	m³/h	m³/h	L mm	W mm	H mm		m³/h	m³/h	L mm	W mm	H mm
ZKW-02	2000	2000~2400	4000	850	830	ZKW-30	30000	27500~32000	4800	2250	2030
ZKW-03	3000	2500~3400	4000	1050	930	ZKW-35	35000	32500~37000	5000	2250	2030
ZKW-05	5000	4500~5400	4000	1050	930	ZKW-40	40000	37500~42000	5000	2700	2200
ZKW-06	6000	5500~6400	4000	1050	930	ZKW-45	45000	42500~47000	5200	2700	2200
ZKW-08	8000	7500~8400	4200	1250	1130	ZKW-50	50000	47500~52000	5200	2700	2600
ZKW-10	10000	9500~11000	4400	1550	1130	ZKW-60	60000	52500~63000	5600	3400	2600
ZKW-12	12000	11500~13000	4400	1550	1230	ZKW-70	70000	64000~73000	5800	3400	2600
ZKW-15	15000	13500~16000	4400	1750	1330	ZKW-80	80000	74000~83000	6000	4000	2800
ZKW-20	20000	16500~22000	4400	2050	1530	ZKW-100	100000	94000~105000	6400	4000	3500
ZKW-25	25000	22500~27000	4600	2050	1730	ZKW-120	120000	11000~125000	6400	4600	3500

标准型组合方式（HJZ型）Standard combination mode (HJZ type)

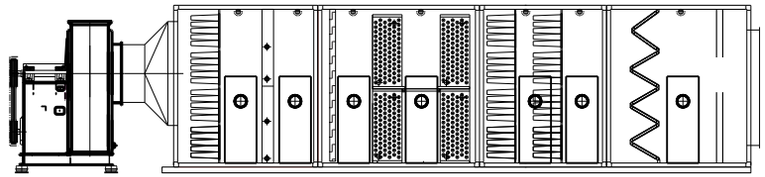
功能段：混合段、初效过滤段、表冷段、加热段、加湿段、风机段、均流段、中效过滤段、出风段。
Functional sections: mixing section, initial filter section, surface cooling section, heating section, humidification section, fan section, equalized flow section, medium efficiency filter section, and air-out section.

机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit	机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机组长度 Unit length	机组宽度 Width of unit	机组高度 Height of unit
	m³/h	m³/h	L mm	W mm	H mm		m³/h	m³/h	L mm	W mm	H mm
ZKW-02	2000	2000~2400	5000	850	830	ZKW-30	30000	27500~32000	6000	2250	2030
ZKW-03	3000	2500~3400	5000	1050	930	ZKW-35	35000	32500~37000	6200	2250	2030
ZKW-05	5000	4500~5400	5000	1050	930	ZKW-40	40000	37500~42000	6200	2700	2200
ZKW-06	6000	5500~6400	5000	1050	930	ZKW-45	45000	42500~47000	6800	2700	2200
ZKW-08	8000	7500~8400	5200	1250	1130	ZKW-50	50000	47500~52000	6800	2700	2600
ZKW-10	10000	9500~11000	5400	1550	1130	ZKW-60	60000	52500~63000	7200	3400	2600
ZKW-12	12000	11500~13000	5400	1550	1230	ZKW-70	70000	64000~73000	7400	3400	2600
ZKW-15	15000	13500~16000	5400	1750	1330	ZKW-80	80000	74000~83000	7600	4000	2800
ZKW-20	20000	16500~22000	5400	2050	1530	ZKW-100	100000	94000~105000	8000	4000	3500
ZKW-25	25000	22500~27000	5600	2050	1730	ZKW-120	120000	11000~125000	8000	4600	3500

注Note:
1、表列机组外形尺寸仅供设计人员参考，不作为订货及验收依据；
2、用户可根据需求增加功能段，具体变化尺寸可与我司技术部门取得联系；
3、机组进风风口尺寸及位置可根据用户需求制定；
4、高压喷雾、高压微雾加湿器段长尺寸加600mm ；
5、规格参数如因产品改良而更改，恕不另行通知，请以具体订货为准。
1.The external dimensions of the listed units are for reference only by the designer and shall not be used as the basis for ordering and acceptance;
2.Users can add functional sections according to their needs. You can contact our technical department for specific dimensions;
3.The dimensions and positions of the inlet vents of the unit can be determined according to user needs;
4.High pressure spray, high pressure micro-mist humidifier section length + 600mm;
5.Specifications are subject to change for the product improvement without prior notice and to the specific order.

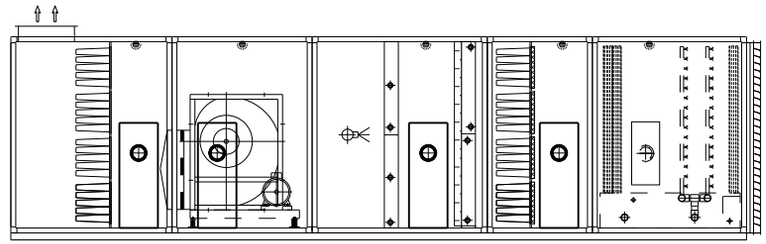
ZKT系列涂装线专用净化型机组式空调机组典型应用方案
Typical Application Scheme for Dedicated Purification Unit Air Conditioning Unit of ZKT Series Coating Line

A型方案 A-type scheme



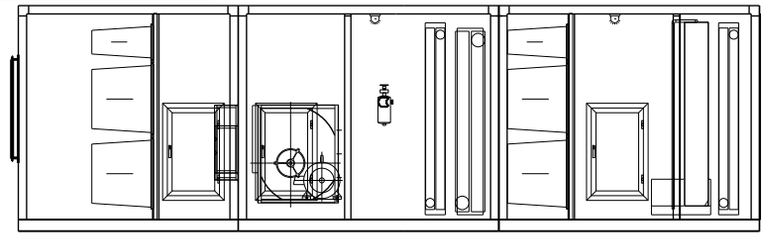
功能段组成：进风段+阻漆板+中间段+漆雾过滤器+中间段+F5中效过滤+F7中效过滤+表冷挡水段+蒸汽加热段+F8过滤段+风机段
方案特征：喷房循环风空调，风机电机外置，减少新风量，可有效节省机组能耗。
Functional section composition: air inlet section + resistance paint plate + middle section + paint mist filter + middle section + F5 medium efficiency filtration + F7 medium efficiency filtration + surface cooling water retaining section + steam heating section + F8 filter section + fan section
Features of scheme: for the spray room circulating air conditioning, the fan motor is externally installed to reduce the fresh air volume, which can effectively save the energy consumption of the unit.

B型方案 B-type scheme



功能段组成：铝合金百叶+防虫网进风段+喷淋段+中间段+初、中效过滤段+表冷挡水段+加热段+加湿段+风机段+均流段+中效送风段
方案特征：喷房全新风空调，喷淋前处理，可有效节省机组能耗。
Functional section composition: aluminum alloy louver + insect net inlet section + spray section + middle section + initial and medium efficiency filter section + surface cooling water retaining section + heating section + humidification section + fan section + equalized flow section + medium efficiency air supply section.
Features of scheme: for the spray room with fresh air conditioning, it is required to be handled before spraying, which can effectively save the energy consumption of the unit.

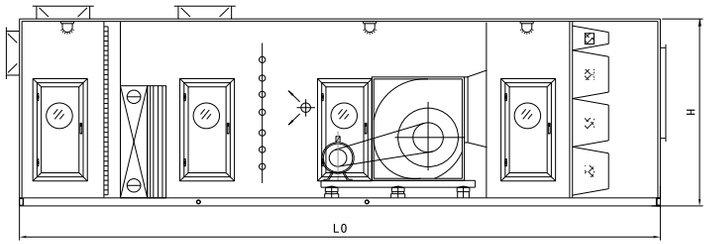
C型方案 C-type scheme



功能段组成：铝合金百叶+防虫网进风段+预热段+循环水湿膜段+初、中效过滤段+表冷段+加热加湿段+风机段+均流段+中效送风段
方案特征：喷房全新风空调，循环水湿膜前处理，可有效节省机组能耗。
Functional section composition: Fresh return air mixing section + initial efficiency filter section + surface cooling water section + secondary return section + heating section + humidification section + fan section + equalized flow section + medium efficiency outlet section;
Features of scheme: The secondary return air is adopted for effectively saving reheat.

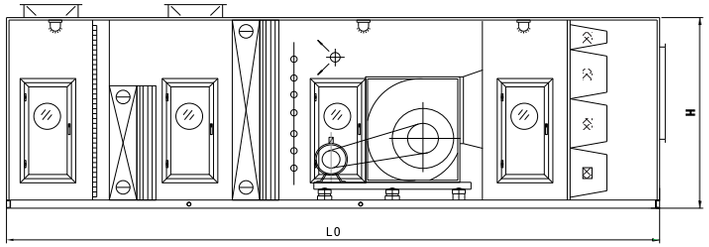
ZKY系列药厂专用净化型机组式空调机组典型应用方案

A型方案 A-type scheme



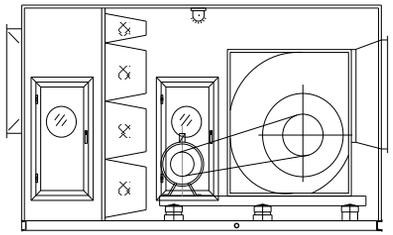
功能段组成：新回风混合段+初效过滤段+表冷档水段+二次回风段+加热段+加湿段+风机段+均流段+中效出风段；
方案特征：采用二次回风，可有效节省再热量。
Functional section composition: Fresh return air mixing section + initial efficiency filter section + surface cooling water section + secondary return section + heating section + humidification section + fan section + equalized flow section + medium efficiency outlet section;
Features of scheme: The secondary return air is adopted for effectively saving reheat.

B型方案 B-type scheme



功能段组成：新风段+初效过滤段+表冷挡水段+二次回风段+再冷挡水段+加热段+加湿段+风机段+均流段+中效送风段；
方案特征：采用新风预过滤，可有效延长初效过滤器寿命。
Functional section composition: fresh air section + initial and medium efficiency filter section + surface cooling water retaining section + secondary return air section + re-cooling water retaining section + heating section + humidification section + fan section + equalized flow section + medium efficiency air supply section;
Features of scheme: Pre-filtering with fresh air can effectively extend the life of the primary filter.

C型方案 C-type scheme



功能段组成：中间段+中效过滤段+风机段
方案特征：用于中效排风。
Functional section composition: mixing section + medium efficiency filter section + fan section
Features of scheme: it is used for medium efficiency exhaust.

ZYJ系列医用空调机组
ZYJ Series Medical Air Conditioning Unit

机组设计要点与特色 Key design and features of Unit

1、建议采用防腐抑菌材料制作内壁板，以满足规范防锈、耐消毒药品腐蚀，及不易滋菌的要求。
2、电加热应采用不易积尘、不生锈、不脱尘的PTC式或其它类似性能的形式。
3、通过盘管的迎风面积风速建议不大于2m/s，并且断面风速均匀，水盘须为不锈钢材质。
4、加湿器采用干蒸汽或电极式加湿器，不可采用湿膜等等焓加湿方式，确保停机后加湿器内无积水，消除细菌滋生。风机可选配变频器进行风量调节，满足客户各种使用要求。
5、过滤器须采用一次抛弃型，不可重复利用。
6、机组控制应采用湿度控制优先的方案：出风口空气相对湿度不高于75%。停机后，风机延时关闭，确保吹干盘管。及具有手术室控制面板联控、值班风机变频或双速运行保证压差、断电自动重启等相关要求。
7、表冷段和出风段可选紫外线杀菌灯、出风段可加臭氧发生器、纳米光触煤。能有效杀灭空气中的细菌。
8、消音器材质为微穿孔板，不可带玻璃棉，防止玻璃棉纤维污染空调环境。

1.It is recommended to use the anti-corrosion and antibacterial materials to make the inner wall panels to meet the requirements of standard anti-rust, anti-disinfectant corrosion, and not easy to germinate.
2.Electrical heating should be carried out in the form of PTC or other similar properties that are less prone to dust, rust, and dust.
3.The air speed through the windward area of the coil is recommended to be no more than 2m/s, the air speed at the cross-section is uniform, and the water tray must be made of stainless steel.
4.The humidifier should adopt dry steam or electrode type humidifier and should not adopt wet film or other humidification methods to ensure that there is no water in the humidifier after shutdown, so as to eliminate bacterial growth. The fan can be equipped with an inverter for air volume adjustment to meet various customer requirements.
5.The filter must be disposable and not recyclable.
6.The unit control should adopt the priority scheme of humidity control: the relative humidity of the air outlet should not be more than 75%. After the shutdown, the fan shall be turned off for a delay to ensure that the coil is blown dry. The operating room control panel joint control, duty fan frequency conversion or two-speed operation are provided to ensure differential pressure, automatic shutdown of power failure and other related requirements.
7.The surface cooling section and the air out section can be provided with ultraviolet germicidal lamp, and an ozone generator and a nano-light touch coal can be added to the outlet section, which can effectively kill bacteria in the air.
8.The silencer is made of micro-perforated plate and cannot be covered with glass wool to prevent the glass wool fiber from polluting the air-conditioning environment.

ZYJ系列医用空调机组
ZYJ Series Medical Air Conditioning Unit

一、概述 I. Overview

欧博医用空调机组，它是以《医院洁净手术部建设标准》、《医院洁净手术部建设技术规范》等国家强制性规范为规范依据和设计思路，在性能、结构上完全符合GB/T19204《洁净手术室专用空气调节机组》。

对于医院洁净手术室这种特殊环境要求的场所，本机组在设计上采取了全面的措施对细菌进行控制，消除细菌繁殖的可能性，使本机组完全符合手术室洁净度、环境控制的要求。另外本机组也使用与其它有洁净等级和无菌要求的场所。本机组从使用场所上分为新风机组与循环风机组，从冷源上分为直膨式和冷冻水式，从结构上分为卧式、立式和吊顶式，全面满足客户要求。

欧博直膨式洁净手术室专用空调具有布置方便，使用灵活、造价低等特点；其表冷器采用制冷剂直接蒸发换热方式，省去了冷水机组二次热交换的冷量损失，并省去了水路系统的安装费用及水路泄露的麻烦。机组自带冷热源，可独立工作。

欧博冷冻水式洁净手术室专用空调具有设计灵活、使用稳定等特点；可以根据工况，通过调节盘管的水流量及时调整冷量和热量，保证温湿度及精度，节约能量。另外，结合医院的特殊性，一般医院已有冷热源，可以减少医院的一次性投资。

欧博冷冻水+直膨冷凝热回收全新风机组是欧博新一代节能机组，其可以利用直膨蒸发器深度除湿，冷凝器的废热加热。使循环风机组盘管尽量保持干态运行，既健康又节能，是欧博公司卓越设计理念的结晶。

For the sites with special environmental necessities like hospital clean operating room, the comprehensive measures have been taken in design to control the bacteria for the unit to eliminate the possibility of bacterial reproduction, so that the unit will completely comply with the cleanliness and environment control of operating rooms. Besides, the unit can be used in other sites with the requirements of cleanliness class and sterility. The unit is divided into fresh air handling unit and circulating fan unit from operation place, into direct expansion type and chilled water type from cold source, and into the horizontal type, vertical types and suspended ceiling type from structure, to fully meet the requirements of the customers.

Oubo direct-expansion type special air conditioner for clean operating rooms is characterized by convenient arrangement, flexible use and low cost. The mode of direct evaporation and heat transfer by refrigerating fluid is adopted for the surface air cooler and saves the loss of refrigeration capacity from the secondary heat exchange of water chilling unit as well as the installation expense and water leakage of water way system. The unit has own cold and heat source and can work independently.

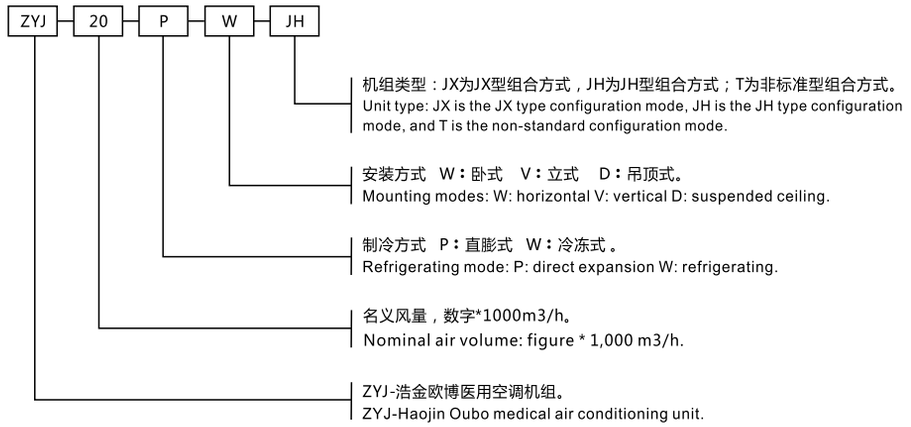
Oubo chilled water type special air conditioning for clean operating rooms is characterized by flexible design and stable use, and will regulate the water-carrying capacity through coil pipes to adjust the cooling capacity and heating capacity in time depending on working conditions so as to ensure the temperature and humidity and accuracy and save the energy. Moreover, ordinary hospitals have the cold and heat source combining the hospital particularity to reduce their one-time investment.

Oubo chilled water+direct expansion type condensing heat recovery full fresh air handling unit is a new generation of energy-saving unit of Oubo, and uses the direct expansion evaporator for deep dehumidification and the waste heat of condenser for heating. The coil pipes of circulating fan unit will run in a dry state to the greatest extent, which is healthy, energy-saving and the excellent design concept achievement of Oubo.

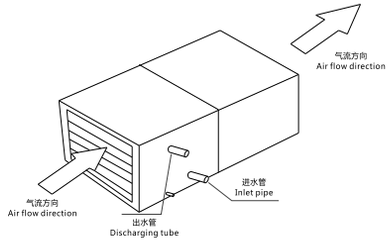
ZYJ系列医用空调机组
ZYJ Series Medical Air Conditioning Unit

医用空调机组 Medical Air Conditioning Unit

二、型号说明

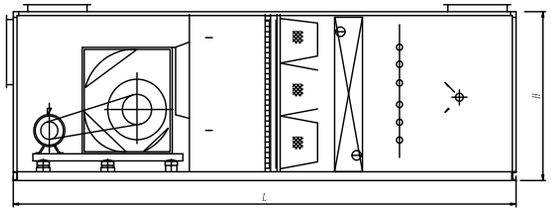


机组左右型判断



面对进风口，进出水管在左侧为左机，反之为右机。（图为右机）
Facing the air inlet, the left unit is on the left of the water inlet pipe and discharging tube, and the right unit is on the right conversely.

JH型方案技术参数(循环风机组)
Technical Parameters of JH Type Scheme (Circulating Fan Unit)



JH功能段：混合段、风机段、均流段、初、中效过滤段、表冷、加热、加湿出风段。
JH functional sections: mixing section, fan section, equalized flow section, initial and medium efficiency filter section, surface air-cooling section, heating section and humidification and air-out section

机组技术参数表 Table for Technical Parameters of Unit

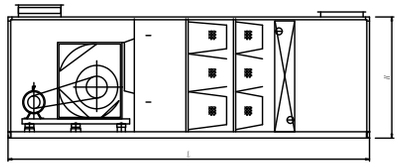
机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机外静压 External static pressure	电机功率 Motor power	二管制供冷量（回风工况）kw Two-pipe system cooling capacity (return air condition) kw			四管制供热量（回风工况）KW Four-pipe system heating capacity (return air condition) kw								
								42℃ 热水盘管供热量 Heating capacity of 42℃ hot water coil pipe			60℃ 热水盘管供热量 Heating capacity of 60℃ hot water coil pipe			蒸汽盘管供热量 Heating capacity of steam coil pipe	
	m³/h	m³/h	Pa	KW	2排rows	4排rows	6排rows	1排rows	2排rows	4排rows	1排rows	2排rows	4排rows	1排rows	2排rows
ZYJ-02B/P-JH	2500	2000~2600	550	1.5	7.8	12.6	16.1	8.0	12.2	18.5	14.3	21.6	32.8	17.2	18.1
ZYJ-03B/P-JH	3500	2700~3800	550	2.2	12	16.4	22.2	12.5	19.1	29.0	22.4	33.8	51.4	28.2	29.6
ZYJ-05B/P-JH	5000	4000~5400	550	3	15.2	25.6	34.3	16.0	24.3	37.0	28.6	43.2	65.6	35.1	36.9
ZYJ-06B/P-JH	6000	5500~6400	550	4	18.4	30.5	40.8	19.4	29.5	44.8	34.6	52.2	79.4	40.0	42.0
ZYJ-08B/P-JH	8000	7500~8400	550	4	24.4	41.2	54.9	25.9	39.3	59.8	46.2	69.8	106.0	56.6	59.4
ZYJ-10B/P-JH	10000	9500~11000	550	5.5	30	55.6	67.2	32.1	48.9	74.3	57.4	86.7	131.7	70.6	74.1
ZYJ-12B/P-JH	12000	11500~13000	550	5.5	36.6	69.2	84	38.3	58.2	88.5	68.4	103.3	157.0	84.0	88.2
ZYJ-15B/P-JH	15000	13500~16000	550	7.5	44.3	88.9	108	46.0	70.0	106.4	82.2	124.1	188.7	101.0	106.1
ZYJ-20B/P-JH	20000	16500~22000	550	11	61	119.4	150.1	62.7	95.3	144.9	112	169.1	257.1	140.0	147.0
ZYJ-25B/P-JH	25000	22500~27000	550	11	72.4	143.8	176.1	78.4	119.2	181.1	140	211.4	321.3	176.0	184.8

机组型号 Unit model	风冷直膨式制冷量KW Refrigerating capacity of air-cooling direct expansion kw	室外机型号 Model of outdoor unit	新风口尺寸 Dimensions of fresh air port	回风口尺寸 Size of return air inlet	送风口尺寸 Size of air supply opening	冷凝水管 Condensate pipe	噪音 Noise	机组尺寸 Dimensions of unit			重量 Weight
			长Length*宽 width	长Length*宽 width	长Length*宽 width			L*W*H			
			mm	mm	mm		dB(A)	mm			kg
ZYJ-02B/P-JH	14.2	SW-15	300*210	400*310	400*310	DN32	64.0	3700	850	830	530
ZYJ-03B/P-JH	16.8	SW-18	300*210	500*310	500*310	DN32	64.0	3700	1050	930	560
ZYJ-05B/P-JH	28.4	SW-30	300*210	600*410	600*410	DN32	65.0	3700	1250	930	660
ZYJ-06B/P-JH	33.6	SW-35	300*310	800*410	800*410	DN32	68.0	3700	1250	1030	720
ZYJ-08B/P-JH	42.8	SW-45	300*310	800*510	800*510	DN32	68.0	3700	1350	1230	830
ZYJ-10B/P-JH	52.4	SW-55	400*310	1000*510	1000*510	DN32	68.0	3700	1550	1330	960
ZYJ-12B/P-JH	67.2	SW-70	400*310	1000*510	1000*510	DN32	70.0	3700	1550	1530	1060
ZYJ-15B/P-JH	85	SW-85	400*410	1200*510	1200*510	DN32	72.0	3700	1850	1530	1210
ZYJ-20B/P-JH	102	SW-100	500*410	1500*610	1500*610	DN32	74.0	3700	2050	1530	1540
ZYJ-25B/P-JH	——	——	600*410	1500*810	1500*810	DN32	76.0	4000	2050	1830	1690

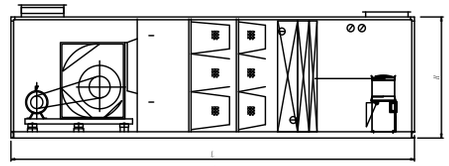
注Note：
1、制冷量是在名义风量时，室内干湿球温度24℃/17℃和室外干湿球35℃/28℃条件下测定，新风量按《医院洁净手术部建筑技术规范》，加热加湿额定工况：回风干球温度20℃，相对湿度50%；
2、室外机出厂带制冷剂；
3、额定制冷量没有考虑风机电机的发热损失，名义风量是指标准状况下的运行风量；
4、机组标准配置为电加热，也可根据客户要求采用热水加热或蒸汽加热；
5、机组标准配置为电极加湿，也可根据客户要求采用干蒸汽或其它方式；
6、盘管水阻力≤50kPa；
7、规格参数如因产品改良而改良，恕不另行通知，请以机组铭牌为准。

1. The refrigerating capacity is measured in the nominal air volume with the indoor and outdoor temperatures of wet and dry bulbs respectively at 24°C/17°C and 35°C/28°C. The fresh air volume follows the Architectural Technical Code for Hospital Clean Operating Department with heating and humidification to the rated working conditions: return air dry bulb at the temperature of 20°C and at the relative humidity of 50%;
2. The outdoor unit is factory equipped with the refrigerating fluid;
3. The heat producing losses of the fan motor have not been considered for the rated refrigerating capacity, and the nominal air volume refers to the running air volume under standard status;
4. The standard configuration of the unit includes the electrical heating, and the heating by hot water or steam is also available as required by customer;
5. The standard configuration of the unit includes the electrode humidification, and the dry steam or other modes is also available as required by customer;
6. Water resistance of coil pipe ≤ 50 kPa;
7. Specifications are subject to change for the product improvement without prior notice and to the nameplate of the unit.

JX型方案技术参数(新风机组)
Technical Parameters of JH Type Scheme (Fresh Air Handling Unit)



JX1型/JX1type



JX2型/JX2type

JXJX1功能段：进风初效段、风机、均流段、中效过滤、亚高效过滤段、表冷出风段
JXJX2功能段：进风初效段、风机、均流段、中效过滤、亚高效过滤段、表冷、抽湿再热段、出风段
JXJX1 functional sections: initial efficiency section of air inlet, fan section, equalized flow section, medium efficiency filter section, sub-efficient filter section and surface cooling air-out section.
JXJX2 functional sections: initial efficiency section of air inlet, fan section, equalized flow section, medium efficiency filter section, sub-efficient filter section and surface cooling section, dehumidification and reheating section and air-out section.

外形尺寸表

机组型号 Unit model	额定风量 Rated air volume	风量范围 Range of air volume	机外静压 External static pressure	电机功率 Motor power	二管制供冷量（回风工况）kw Two-pipe system cooling capacity (return air condition) kw			四管制供热量（回风工况）KW Four-pipe system heating capacity (return air condition) kw								
								42℃ 热水盘管供热量 Heating capacity of 42℃ hot water coil pipe			60℃ 热水盘管供热量 Heating capacity of 60℃ hot water coil pipe			蒸汽盘管供热量 Heating capacity of steam coil pipe	
	m³/h	m³/h	Pa	KW	2排rows	4排rows	6排rows	1排rows	2排rows	4排rows	1排rows	2排rows	4排rows	1排rows	2排rows
ZYJ-02-B/P-JX	2500	2000~2600	550	2.2	34.2	42.8	46.2	9.6	14.6	22.3	17.2	26.0	39.5	20.0	32.4
ZYJ-03-B/P-JX	3500	2700~3800	550	3	44.2	55.3	59.7	13.4	20.4	31.1	24	36.2	55.1	30.2	48.9
ZYJ-05-B/P-JX	5000	4000~5400	550	4	68.6	85.8	92.6	20.2	30.6	46.6	36	54.4	82.6	40.6	65.8
ZYJ-06-B/P-JX	6000	5500~6400	550	5.5	86.4	108.0	116.6	23.5	35.8	54.3	42	63.4	96.4	50.0	81.0
ZYJ-08-B/P-JX	8000	7500~8400	550	5.5	112	140.0	151.2	32.5	49.4	75.0	58	87.6	133.1	64.2	104.0
ZYJ-10-B/P-JX	10000	9500~11000	550	7.5	138.2	172.8	186.6	39.2	59.6	90.6	70	105.7	160.7	81.4	131.9
ZYJ-12-B/P-JX	12000	11500~13000	550	7.5	166	207.5	224.1	47.7	72.5	110.2	85.2	128.7	195.6	97.3	157.6
ZYJ-15-B/P-JX	15000	13500~16000	550	11	204	255.0	275.4	58.2	88.5	134.6	104	157.0	238.7	115.6	187.3
ZYJ-20-B/P-JX	20000	16500~22000	550	11	265	331.3	357.8	76.2	115.8	176.0	136	205.4	312.1	154.0	249.5
ZYJ-25-B/P-JX	25000	22500~27000	550	15	325	406.3	438.8	100.2	152.4	231.6	179	270.3	410.8	194.0	314.3

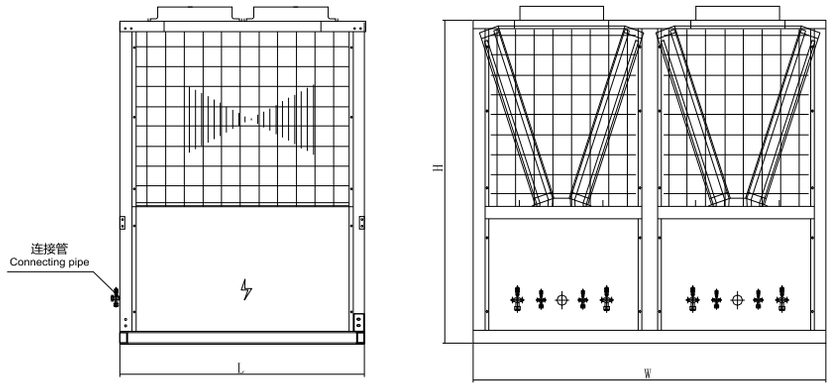
机组型号 Unit model	风冷直膨式制冷量KW Refrigerating capacity of air-cooling direct expansion kw	室外机型号 Model of outdoor unit	回风口尺寸 Size of return air inlet	送风口尺寸 Size of air supply opening	冷凝水管 Condensate pipe	噪音 Noise	抽湿再热 dehumidification and reheating	JX1机组尺寸 JX1 Dimensions of unit			JX2机组尺寸 JX2 Dimensions of unit		
			长Length*宽width	长Length*宽width				L*W*H			L*W*H		
			mm	mm		dB(A)		mm			mm		
ZYJ-02B/P-JX	14.2	SW-15	600*610	400*310	DN32	64.0	——	3500	850	830	3700	850	830
ZYJ-03B/P-JX	16.8	SW-18	600*610	500*310	DN32	64.0	——	3500	1050	930	3700	1050	930
ZYJ-05B/P-JX	28.4	SW-30	950*610	600*410	DN32	65.0	3HP	3700	1250	930	3900	1250	930
ZYJ-06B/P-JX	33.6	SW-35	950*710	800*410	DN32	68.0	4HP	3700	1250	1030	3900	1250	1030
ZYJ-08B/P-JX	42.8	SW-45	1360*710	800*510	DN32	68.0	5HP	3900	1350	1230	4100	1350	1230
ZYJ-10B/P-JX	52.4	SW-55	1360*810	1000*510	DN32	68.0	6HP	3900	1550	1330	4100	1550	1330
ZYJ-12B/P-JX	67.2	SW-70	1660*810	1000*510	DN32	70.0	2*4HP	4100	1550	1530	4300	1550	1530
ZYJ-15B/P-JX	85	SW-85	1660*1010	1200*510	DN32	72.0	2*4HP	4100	1850	1530	4300	1850	1530
ZYJ-20B/P-JX	102	SW-100	1960*1210	1500*610	DN32	74.0	2*5HP	4300	2050	1530	4500	2050	1530
ZYJ-25B/P-JX	——	——	1960*1510	1500*810	DN32	76.0	2*6HP	4600	2050	1830	4800	2050	1830

注Note：
1、制冷量名义工况：新风干湿球温度35℃/28℃；
加热加湿额定工况：新风干球温度0℃相对湿度45%；
2、室外机出厂带制冷剂；
3、额定制冷量没有考虑风机电机的发热损失，名义风量是指标准状况下的运行风量；
4、机组标准配置为电加热，也可根据客户要求采用热水加热或蒸汽加热；
5、机组标准配置为电极加湿，也可根据客户要求采用干蒸汽或其它方式；
6、盘管水阻力≤50kPa；
7、规格参数如因产品改良而改良，恕不另行通知，请以机组铭牌为准。

1. Nominal working conditions of refrigerating capacity: fresh air wet and dry bulb temperatures: 35°C/28°C;Rated working conditions of heating and humidification: fresh air dry bulb temperature of 0°C and relative humidity of 45%;
2. The outdoor unit is factory equipped with the refrigerating fluid;
3. The heat producing losses of the fan motor have not been considered for the rated refrigerating capacity, and the nominal air volume refers to the running air volume under standard status;
4. The standard configuration of the unit includes the electrical heating, and the heating by hot water or steam is also available as required by customer;
5. The standard configuration of the unit includes the electrode humidification, and the dry steam or other modes is also available as required by customer;
6. Water resistance of coil pipe ≤ 50 kPa;
7. Specifications are subject to change for the product improvement without prior notice and to the nameplate of the unit.

Medical Air Conditioning Unit 医用空调机组

室外机尺寸表
Table for Dimensions of Outdoor Unit



型 号 model	内机制冷量 Refrigerating capacity of indoor unit (KW)	L (mm)	W (mm)	H (mm)	出液管*数量 Outlet pipe * quantity	回气管*数量 Air return pipe * quantity	室外机台数 Number of outdoor units	重量 Weight (kg)
SW-15	14.2	750	900	1600	φ12.7*1	φ19*1	1	125
SW-18	16.8	850	900	1600	φ12.7*2	φ19*2	1	140
SW-30	28.4	1250	900	1600	φ12.7*2	φ19*2	1	210
SW-35	33.6	1450	900	1600	φ12.7*2	φ19*2	1	240
SW-45	42.8	1900	900	1600	φ12.7*3	φ19*3	1	325
SW-55	52.4	1250	1800	1600	φ12.7*4	φ19*4	1	375
SW-70	67.2	1450	1800	1600	φ12.7*4	φ19*4	1	420
SW-85	85	1450	1800	1600	φ16*2	φ28*2	1	420
		750	900	1600	φ12.7*1	φ19*1	1	125
SW-100	102	1450	1800	1600	φ16*2	φ28*2	1	420
		1450	900	1600	φ16*1	φ28*1	1	220

注Note:

室外机的安装位置应远离易燃易爆、多尘、低凹、高温场所。请保证机组周围有足够的空间，以利于进风、出风、维修。任何障碍物都会对机组的制冷/制热量有影响，并会对今后机组的维护和保养带来不便。

室外机应有足够的散热空间，室外机摆放应避免排风短路。

The outdoor unit shall be installed in the place away from inflammables and explosives, dust, indentation and high temperature. Please ensure sufficient space around the unit for the air intake, air out and maintenance. Any barrier will influence the refrigerating/heating capacities of the unit and cause inconvenience for the future unit maintenance.

Sufficient heat dissipation space is required for the outdoor unit, which shall be placed to avoid the exhaust short circuit.

洁净手术室用柜式空调机组
Cabinet-type Air Conditioning Unit for Clean Operating Rooms

机组设计要点与特色 Key design and features of Unit

1、专为洁净手术室及ICU打造的一款柜式洁净空调机组；
2、超薄型设计，不需要专用机房，可以直接暴露式安装于辅助区域一角；
3、系统集成设计，安装时只需提供冷热源及电源，大大减少现场安装工作量；
4、超级卫生型设计，具有永久性持续杀菌功能，彻底杀灭机内细菌，改善送风卫生条件；
5、恒风量控制，用户勿需担心机组送风量衰减导致净化级别的降低；
6、人性化设计、高度智能人机对话、及时快捷的提醒服务；
7、超低静音，选用最先进的直流变频高效低噪音风机，顺滑通畅的气流通道设计，内部经过降噪处理，保证了完美的静音效果。

1.A cabinet-type clean air conditioning unit specially designed for clean operating rooms and ICUs;
2.Ultra-thin design, without special machine room and able to be directly exposed in a corner of auxiliary area;
3.System integration design, and cold and heat source and power supply only required during mounting to largely reduce the site mounting workload;
4.Super hygienic design, with permanent continuous sterilization function to completely kill the bacteria in the unit and improve the sanitary conditions for air supply;
5.Constant air volume control and no need for users to worry about the air output attenuation of the unit resulting in the reduction of purification level;
6.Humanized design, highly intelligent man-machine conversation and timely and quick reminder service;
7.Ultra-low noise, the most advanced DC variable frequency efficient low-noise fan, smooth and unobstructed air flow channel design and internal noise reduction processing to ensure the perfect mute effect.

性能参数表
Table of Performance Parameters

型号 Model			ZYJ-V-3.0EC	ZYJ-V-4.5EC	ZYJ-V-6.0EC	ZYJ-V-9.0EC
送风量 Air output(m³/h)			3000	4500	6000	9000
新风量 Fresh air volume(m³/h)			1000	1000	1600	1600
机外静压 External static pressure(Pa)			550	550	550	550
制冷 Refrigeration	冷水型 Water chilling type	制冷量 Refrigeration(kw)	22.4	31	42	62
		供水量 Water supply(t/h)	3.9	5.5	7.2	11
		冷水直径 Chilling water diameter	DN32	DN40	DN40	DN50
		制冷量(kw)	23	28.5	42.5	57
	直接蒸发型 Direct evaporation type	室外机 Outdoor unit 型号*数量 Model*quantity	SW-24	SW-30	SW-45	SW-60
		总功率 Total power(kw)	9.85	11.9	9.85*2	18.6
		长*宽*高(mm) Length*width*height	1200*900*1600	1200*900*1650	1900*900*1600	1250*1800*1600
		供液管*数量 Feed pipe*quantity	Φ12.7*2	Φ12.7*2	Φ12.7*3	Φ12.7*4
		回液管*数量 Liquid return pipe*quantity	Φ19*2	Φ19*2	Φ19*3	Φ19*4
		凝水管径 Condensate pipe diameter	DN32	DN32	DN32	DN32
加热量(KW) Heating capacity(KW)			24	34	45	66
加湿量 Humidifying capacity	型式 Type		电极式 Electrode type			
	加湿器Humidifying capacity(kg/h)		8	15	15	25
	电功率Electric power(KW)		6	11.25	11.25	18.75
电再热 Electric reheating	型式 Type		PTC			
	功率 Power(KW)		12	15	25	30
	电源 Power supply		380V、三相四线制 three-phase four-wire system			
电机功率 Motor power(KW)			1.65	3	3	5.4
宽*高*厚 Width*height*thickness (mm)			2030*2080*850	2300*2080*850	2300*2080*850	2300*2450*850
运行重量 Operating weight(kg)			430	520	620	780
风口尺寸 Power supply (mm)	回风口 Return air inlet		法兰Flange 400*310	法兰Flange 500*410	法兰Flange 500*510	法兰Flange 700*510
	新风口 Fresh air port		法兰Flange 300*250	法兰Flange 300*250	法兰Flange 450*250	法兰Flange 450*250
	送风口 Air supply outlet		法兰Flange 550*310	法兰Flange 550*410	法兰Flange 750*410	法兰Flange 850*510
过滤器配置 Filter configuration			G4+F8	G4+F8	G4+F8	G4+F8

注Note：

1、上述运行风量为机组运行的最大风量、可向下无极调节风量,新风口可选配电动风阀自动调节新风量；
2、冷冻水：7℃/12℃、热水45℃/40℃。上述冷量基于标准工况：室内工况DB24℃/RH50%、
室外工况：DB35℃/WB28℃、机器露点：13℃；
3、加热量按换热器进风干球温度15℃计算、机组选型时冷量、热量及加湿量等需根据不同的使用工况重新校核；
4、本标准机型的换热器为两管制冷热水换热器、6排管；
5、制造标准：现行GB 50333、GB/T19569。

1.The above operating air volume is the maximum of the unit which can be regulated downwards steplessly, and the electric air valve is optional for the fresh air port to automatically regulate the fresh air volume;
2.Chilled water: 7°C/12°C, and hot water: 45°C/40°C. Above refrigerating capacity is based on the standard working conditions: DB24°C/RH50%, outdoor working conditions: DB35°C/WB28°C and dew point of machine: 13°C;
3.The heating capacity shall be calculated as per inlet air dry bulb temperature of heat exchanger at 15°C, and the refrigerating, heating and humidifying capacities can be rechecked as per different using conditions;
4.The heat exchanger in this standard model is the two-pipe system cold-hot water heat exchanger with 6-row pipes;
5.Manufacturing standards: current GB 50333 and GB/T19569.

单元式空调机组
Unitary Air Conditioning Unit

一、概述 Overview

欧博单元式空调机组是浩金欧博空调公司吸收国内外众多最新设计成果，在原有柜机的基础上的升级版本。该机组有多种型号可供选择，可广泛应用于电子厂房、医院、制药厂、印刷厂、邮电、银行、机房、配电站、通讯站等建筑物的空调需要，具有技术成熟、结构紧凑、安装方便、性能可靠稳定等特点，完全满足精密机械、光学仪器、电子仪表、印刷、医药、食品加工等车间及计量室、科研实验室对温度和湿度有较高要求的场所。

Oubo unitary air conditioning unit is a update version that Haojin Oubo Air Conditioning absorbs multiple latest design achievements at home and abroad based on the former cabinet unit. There are multiple models of this unit and can be widely used for the air conditioning requirements in such buildings as electronic plants, hospitals, pharmaceutical factories, printing houses, post and telecommunications offices, banks, machine rooms, power distribution stations and communication stations. It is featured by mature technology, compact structure, easy installation and reliable and stage performance, and qualified in the workshops of precision machinery, optical instruments, electronic devices, printing, medicines and food processing, and places with higher requirements of temperature and humidity, including measuring rooms and scientific laboratories.

二、型号说明 Model Description

SL HS 45 V A T

- T为非标准型机组，标准型机组不予表示。
  T is the non-standard unit, and the standard unit is not shown.
- (H)为热泵型，单冷型不予表示；A表示其他制冷剂，R22不予表示。
  (H) refers to the heat pump type excluding the air conditioner with cooling function only. A refers to other refrigerating fluids excluding R22
- 机组形式：V为立式，W为卧式,D为吊顶式。
  Unit type: V: vertical W: horizontal D: suspended ceiling.
- 名义制冷量：KW。
  Nominal refrigerating capacity: KW.
- HS为恒温恒湿机组，G为单冷式机组,GH为单冷带电加热机组。
  HS, G and GH respectively refer to constant temperature humidity unit, unit with cooling function only, and unit with cooling function and electrical heating.
- SI为水冷单元式空调机组; FL为风冷单元式空调机组。
  SI is the water cooling unitary air conditioning unit;
  FL is the air-cooling unitary air conditioning unit.

SW 15

- 名义制冷量：KW。
  Nominal refrigerating capacity: KW.
- SW为单元式空调室外机。
  SW is the unitary air conditioning outdoor unit.

水冷柜式空调机组性能参数表（立式）
Table for Performance Parameters of Water-ice Cabinet-type Air Conditioning Unit (Vertical)

型号(Model)SLG(H)-			17	35	40	50	60	80	100	120	140	160	180	200
机组性能参数 Unit performance parameters	制冷量 Refrigerating capacity	KW	16.2	33.4	40.8	49.2	60.2	77.2	100.8	117.6	137.1	156.8	176.4	195.8
	电加热 Electrical heating	KW	5	10	10	15	20	25	30	35	40	45	55	60
	风量 Air Volume	m³/h	3100	6000	7000	9500	10500	14000	18000	21000	24000	27000	32000	35000
	机外静压 External static pressure	Pa	150	250	250	250	300	300	400	400	400	400	500	500
	温度范围及精度 Temperature range and accuracy		夏季(Summer)22-28℃±1℃,冬季(winter)18-24℃±1℃											
	制冷量调节范围% Regulating range of refrigerating capacity %		0,100	0,50,100		0,33 66,100	0,25, 50,75, 100	0,25, 50,75, 100	0,20, 40,60, 80,100	0,33, 66,100	0,14,28, 42,56,84, 100	0,25,50, 75,100	0,12,44, 56,88, 100	0,20,40, 60,80, 100
	机组噪音 Unit noise	dB(A)	≤55	≤60	≤65	≤65	≤65	≤65	≤68	≤68	≤68	≤70	≤72	≤72
压缩型机型 Condensation model			全封闭涡旋式压缩机Fully enclosed vortex-type compressor											
电源 Power supply	电源 Power supply		三相(Three phase)-380-V,50Hz											
	送风机功率 Power of blower	KW	0.75	1.5	1.5	2.2	3	4	5.5	7.5	7.5	7.5	11	11
	制冷消耗功率 Consumed refrigerating powe	KW	4.55	9.5	11.4	14.2	17.4	22.2	28.8	33.6	38.2	44.6	48.6	52.2
壳管式冷凝器 Shell and tube condenser	水流量 Water flow rate	m²/h	3.7	7.6	9.3	11.3	13.7	17.7	23.1	26.9	31.4	35.9	40.4	44.9
	水阻力 Water resistance	Kpa	24	28	30	30	30	30	35	35	38	38	40	40
	进出水管 Inlet and outlet pipes	DN	40	50	50	50	50	65	65	65	80	80	80	80
冷凝水管 Condensate pipe		DN	25(1*外螺纹external thread)						32(1-1/4*外螺纹external thread)					
机组外形尺寸 Boundary dimensions of unit		MM	详情见第57页水/风冷柜式空调机组外形尺寸 Refer to boundary dimensions of water/air-cooling cabinet-type air conditioning units on page 57											
室内机重量 Weight of indoor unit		KG	240	320	450	540	620	740	840	910	1100	1350	1550	1700

注：

1、系统节流方式：采用外平衡式热力膨胀阀节流；2、蒸发器采用铜管套铝翅片式；3、冷凝器采用壳管式；4、风机使用皮带传动；5、回风口均设有尼龙网过滤器；6、制冷消耗功率不包括辅助电加热功率及水泵功率；7、制冷量基于以下条件：室内干球温度27℃，湿球温度19℃，进水温度30℃，出水温度35℃；8、制冷量没有考虑风机电机的发热损失；9、制热量为辅助电加热量，电加热为客户选配件，标准型不带电加热；10、机组运行范围：制冷时，室内最高进风温度32℃，最低进风温度21℃，水冷机最高进水温度34℃，最低进水温度20℃，承受最高水压1.0MPa；11、本公司还提供R410A.R407C环保冷媒机组，具体参数请向公司索取。规格参数会因产品改良而更改，恕不另行通知。

Note:

1. System flow control mode: external balance thermal expansion valve adopted for flow control; **2.** The copper pipe sleeve aluminum fin type evaporator is adopted; **3.** The shell and tube type condenser is adopted; **4.** The fan is driven by belt; **5.** The nylon net filter is set at the return air inlet; **6.** The consumed refrigeration power excludes the auxiliary electrical heating power and pump power; **7.** The refrigerating capacity is based on the following conditions: indoor dry bulb temperature at 27°C, wet bulb temperature at 19°C, water inlet temperature at 30°C and water outlet temperature at 35°C; **8.** The heat producing losses of the fan motor have not been considered in the refrigerating capacity; **9.** The heating capacity is the auxiliary electrical heating capacity and the electrical heating is optional of customer. The standard type excludes the electrical heating; **10.** Running range of unit: during the refrigeration, the maximum indoor air inlet temperature at 32°C, the minimum air inlet temperature at 21°C, the maximum water inlet temperature of water-cooling machine at 34°C, and the minimum water inlet temperature at 20°C, bearing the maximum water pressure of 1.0 Mpa; **11.** R410A and R407C environmental refrigerant units are also provided by the Company. Contact the Company for specific parameters.

Specifications are subject to change for the product improvement without prior notice.

风冷柜式空调机组（立式）
Air-cooling Cabinet-type Air Conditioning Unit (Vertical)

型号(Model)SLG(H)-			15	30	35	45	55	70	85	100	120	135	155	170
机组性能参数 Unit performance parameters	制冷量 Refrigerating capacity	KW	14.2	25.4	33.6	42.8	52.4	67.2	85	102	117.6	135	152	168
	电加热 Electrical heating	KW	5	10	10	15	20	25	30	35	40	45	55	60
	风量 Air Volume	m³/h	3100	6000	7000	9500	10500	14000	18000	21000	24000	27000	32000	35000
	机外静压 External static pressure	Pa	150	250	250	250	300	300	400	400	400	400	500	600
	温度范围及精度 Temperature range and accuracy		夏季(Summer)22-28℃±1℃,冬季(winter)18-24℃±1℃											
	制冷量调节范围% Regulating range of refrigerating capacity %		0,100	0,50,100		0,33,66, 100	0,25,50, 75,100	0,25,50, 75,100	0,20,40, 60,80, 100	0,33,66, 100	0,14, 28, 42,56,84, 100	0,25,50, 75,100	0,12, 44, 56, 88, 100	0,20,40, 60,80, 100
	机组噪音 Unit noise	dB(A)	≤55	≤60	≤62	≤65	≤65	≤65	≤68	≤68	≤68	≤70	≤72	≤72
电源 Power supply	电源 Power supply		三相(Three phase)-380-V,50Hz											
	送风机功率 Power of blower	KW	0.75	1.5	1.5	2.2	3	4	5.5	7.5	7.5	7.5	11	11
	制冷消耗功率 Consumed refrigerating powe	KW	5.1	10.2	12	15.5	18.6	23.6	29.2	36	40.6	45.6	53.6	58.4
冷凝水管 Condensate pipe		DN	25(1*外螺纹external thread)						32(1-1/4*外螺纹external thread)					
机组外形尺寸 Boundary dimensions of unit		MM	详情见第57页水/风冷柜式空调机组外形尺寸 Refer to boundary dimensions of water/air-cooling cabinet-type air conditioning units on page 57											
室外机 Outdoor unit			SW-15	SW-30	SW-35	SW-45	SW-55	SW-70	SW-85	SW-100	SW-120	SW-135	SW-155	SW-170

注：

1、系统节流方式，采用外平衡式热力膨胀阀节流；2、蒸发器采用铜管套铝翅片式；3、风冷冷凝器采用铜管套铝翅片式；4、风机使用皮带传动；5、回风口均设有尼龙网过滤器；6、制冷消耗功率不包括辅助电加热功率；7、制冷消耗功率含室外机功率；8、制冷量基于以下条件：室内干球温度27℃，湿球温度19℃；风冷式室外机进风干球湿度35℃，湿球温度24℃；9、制冷量没有考虑风机电机的发热损失；10、制热量为辅助电加热量，电加热为客户选配件，标准型不带电加热；11、机组运行范围：室内最高进风温度32℃，最低进风温度21℃；室外最高进风温度43℃，最低进风温度5℃；12、本公司还提供R410A.R407C环保冷媒机组，具体参数请向公司索取；13、标准型机组压缩机在室外机，如需压缩机放置在室内机，请在订货时注明。规格参数会因产品改良而更改，恕不另行通知。

Note:

1. System flow control mode: external balance thermal expansion valve adopted for flow control;
2. The copper pipe sleeve aluminum fin type evaporator is adopted;
3. The copper pipe sleeve aluminum fin type air-cooling condenser is adopted;
4. The fan is driven by belt;
5. The nylon net filter is set at the return air inlet;
6. The consumed refrigeration power excludes the auxiliary electrical heating power;
7. The consumed refrigeration power includes the power of outdoor unit;
8. The refrigerating capacity is based on the following conditions: indoor dry bulb temperature at 27°C, and wet bulb temperature at 19°C;For the air-cooling outdoor unit, the air inlet dry bulb temperature at 35°C and the wet bulb temperature at 24°C;
9. The heat producing losses of the fan motor have not been considered in the refrigerating capacity;
10. The heating capacity is the auxiliary electrical heating capacity and the electrical heating is optional of customer. The standard type excludes the electrical heating;
11. Running range of unit: the maximum indoor air inlet temperature at 32°C, and the minimum air inlet temperature at 21°C;
12. R410A and R407C environmental refrigerant units are also provided by the Company. Contact the Company for specific parameters;
13. For the standard unit compressor in the outdoor unit, if the compressor is required to be placed in the indoor unit, please indicate that when ordering.

水冷洁净式恒温恒湿空调机组（立式）
Water-cooling Clean Constant Temperature and Constant humidity Air Conditioning Unit (Vertical)

型号(Model)SLG(H)-			17	35	40	50	60	80	100	120	140	160	180	200
机组性能参数 Unit performance parameters	制冷量 Refrigerating capacity	KW	16.2	33.4	40.8	49.2	60.2	77.2	100.8	117.6	137.1	156.6	178.4	195.8
	电加热 Electrical heating	KW	7.5	15	20	25	30	35	45	55	65	75	80	80
	风量 Air Volume	m³/h	3100	6000	7000	9500	10500	14000	18000	21000	24000	27000	32000	35000
	机外静压 External static pressure	Pa	150	250	250	250	300	300	300	400	400	400	500	500
	温度范围及精度 Temperature range and accuracy		夏季(Summer)22-28℃±1℃,冬季(winter)18-24℃±1℃											
	湿度范围及精度 Humidity range and accuracy		50-70%±5%											
	制冷量调节范围% Regulating range of refrigerating capacity %		0,100	0,50,100		0,33,66,100	0,25,50,75,100	0,25,50,75,100	0,20,40,60,80,100	0,33,66,100	0,14,28,42,56,84,100	0,25,50,75,100	0,12,44,56,88,100	0,20,40,60,80,100
	机组噪音 Unit noise	dB(A)	≤55	≤60	≤62	≤65	≤65	≤65	≤68	≤68	≤68	≤70	≤72	≤72
电极加湿器 Electrode humidifier	加湿量 Humidifying capacity	kg/h	4	8	12	15	15	20	25	30	35	40	45	45
	功率Power	KW	3.1	6.2	9.4	11.6	11.6	15	18.75	22.5	26.25	30	35.2	35.2
电源 Power supply	电源 Power supply		三相(Three phase)-380V,50Hz											
	送风机功率 Power of blower	KW	1.1	2.2	3	4	4	5.5	7.5	11	11	11	15	15
	制冷消耗功率 Consumed refrigerating powe	KW	5	10.2	12.6	15.1	18.4	23.7	30.8	36.4	41.7	48.1	52.6	56.2
	最大输入功率 Maximum input power	KW	15.6	31.4	42	51.7	60	73.7	94.6	114	133	153	167.8	171.4
壳管式冷凝器 Shell and tube condenser	水流量 Water flow rate	m³/h	3.7	7.6	9.3	11.3	13.7	17.7	23.1	26.9	31.4	35.9	40.4	44.9
	水阻力 Water resistance	Kpa	24	28	28	30	30	30	35	30	38	38	40	40
	进出水管 Inlet and outlet pipes	DN	40	50	50	50	50	65	65	65	80	80	80	80
冷凝水管 Condensate pipe		DN	25(1*外螺纹external thread)						32(1-1/4*外螺纹external thread)					
机组外形尺寸 Boundary dimensions of unit		MM	详情见第58页水/风冷洁净式恒温恒湿空调机组外形尺寸表 Refer to table for boundary dimensions of water/air-cooling clean constant temperature and constant humidity air conditioning units on page 58											
室内机重量 Weight of indoor unit		KG	200	340	480	600	650	810	900	960	1160	1420	1620	1800

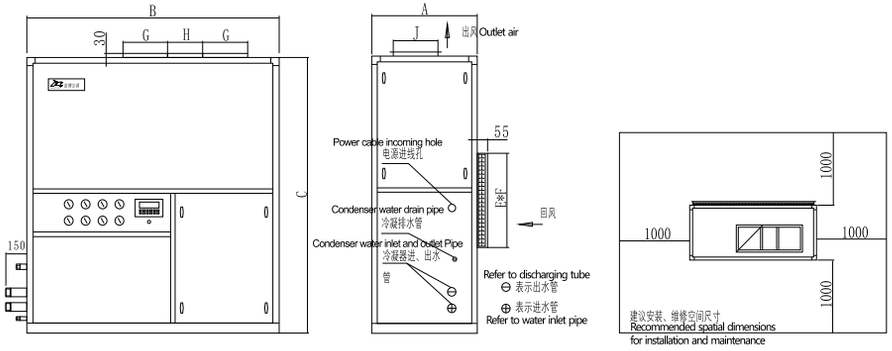
注：
1、系统节流方式：采用外平衡式热力膨胀阀节流；2、蒸发器采用铜管套铝翅片式；3、水冷冷凝器采用壳管式；4、风机使用皮带传动；5、回风口均设有板式初、中效过滤器；6、制冷消耗功率不包括辅助电加热功率、加湿器功率及水泵功率；7、制冷量基于以下条件：室内干球温度23℃,湿球温度17℃，进水温度30℃，出水温度35℃； 8、机组运行范围：室内最高进风温度32℃，最低进风温度21℃，室外最高进风温度43℃，最低进风温5℃； 水冷机最高进水温度34℃，最低进水温度20℃，承受最高水压1.0MPa；9、本公司还提供R410A.R407C环保冷媒机组，具体参数请向公司索取。
规格参数会因产品改良而更改，恕不另行通知。
Note:
1. System flow control mode: external balance thermal expansion valve adopted for flow control;
2. The copper pipe sleeve aluminum fin type evaporator is adopted;
3. The shell and tube type water-cooling condenser is adopted;
4. The fan is driven by belt;
5. The plate-type initial efficiency and medium efficiency filters are set at the return air inlet;
6. The consumed refrigeration power excludes the auxiliary electrical heating power, humidifier power and pump power;
7. The refrigerating capacity is based on the following conditions: indoor dry bulb temperature at 23°C, wet bulb temperature at 17°C, water inlet temperature at 30°C and water outlet temperature at 35°C;
8. Operating range of unit: the maximum indoor air inlet temperature at 32°C, the minimum air inlet temperature at 21°C, the maximum outdoor air inlet temperature of water-cooling machine at 43°C, and the minimum air inlet temperature at 5°C;
9. R410A and R407C environmental refrigerant units are also provided by the Company. Contact the Company for specific parameters.
Specifications are subject to change for the product improvement without prior notice.

风冷式洁净恒温恒湿空调机组（立式）
Air-cooling Clean Constant Temperature and Constant humidity Air Conditioning Unit (Vertical)

型号(Model)SLG(H)-			15	30	35	45	55	70	85	100	120	135	155	170
机组性能参数 Unit performance parameters	制冷量 Refrigerating capacity	KW	14.2	28.4	33.6	42.8	52.4	67.2	85	102	117.6	135	152	168
	电加热 Electrical heating	KW	7.5	15	15	20	25	30	40	50	60	60	70	80
	风量 Air Volume	m³/h	3100	6000	7000	9500	10500	14000	18000	21000	24000	27000	32000	35000
	机外静压 External static pressure	Pa	150	250	250	250	300	300	400	400	400	400	500	500
	温度范围及精度 Temperature range and accuracy		夏季(Summer)22-28℃±1℃,冬季(winter)18-24℃±1℃											
	湿度范围及精度 Humidity range and accuracy		50-70%±5%											
	制冷量调节范围% Regulating range of refrigerating capacity %		0,100	0,50,100		0,33,66,100	0,25,50,75,100	0,25,50,75,100	0,20,40,60,80,100	0,33,66,100	0,14,28,42,56,84,100	0,25,50,75,100	0,12,44,56,88,100	0,20,40,60,80,100
	机组噪音 Unit noise	dB(A)	≤52	≤58	≤58	≤62	≤62	≤62	≤65	≤65	≤65	≤68	≤70	≤70
电极加湿器 Electrode humidifier	加湿量 Humidifying capacity	kg/h	4	8	12	15	15	15	15	22	22	30	45	45
	功率Power	KW	3.1	6.2	9.4	11.6	11.6	11.6	11.6	17.2	17.2	23.4	35.2	35.2
电源 Power supply	电源 Power supply		三相(Three phase)-380V,50Hz											
	送风机功率 Power of blower	KW	1.1	2.2	3	4	4	5.5	7.5	11	11	11	15	15
	制冷消耗功率 Consumed refrigerating powe	KW	5.3	10.6	12.7	15.9	19.1	25	30.6	38	44.1	48.6	55.6	62.3
	最大输入功率 Maximum input power	KW	15.9	31.8	37.1	47.5	55.7	66.6	82.2	105.2	121.3	132	160.8	177.5
冷凝水管 Condensate pipe		DN	25(1*外螺纹)						32(1-1/4*外螺纹)					
机组外形尺寸 Boundary dimensions of unit		MM	详情见第58页水/风冷洁净式恒温恒湿空调机组外形尺寸表 Refer to table for boundary dimensions of water/air-cooling clean constant temperature and constant humidity air conditioning units on page 58											
室外机 Outdoor unit			SW-15	SW-30	SW-35	SW-45	SW-55	SW-70	SW-85	SW-100	SW-120	SW-135	SW-155	SW-170

注：
1、系统节流方式：采用外平衡式热力膨胀阀节流；2、蒸发器采用铜管套铝翅片式； 3、风冷冷凝器采用铜管套铝翅片式；4、风机使用皮带传动；5、回风口均设有板式初、中效过滤器；6、制冷消耗功率不包括辅助电加热功率及加湿器功率；7、最大输入功率含室外机功率； 8、制冷量基于以下条件：室内干球温度 23℃，湿球温度17℃; 风冷式外机进风干球温度35℃，湿球温度24℃；9、机组运行范围：制冷时，室内最高进风温度32℃，最低进风温度21℃， 室外最高进风温度43℃，最低进风温 度5℃， 水冷机最高进水温度34℃，最低进水温度20℃；10、本公司还提供R410A或R407C环保冷媒机组，具体参数请向公司索取。
规格参数会因产品改良而更改，恕不另行通知。
Note:
1. System flow control mode: external balance thermal expansion valve adopted for flow control;
2. The copper pipe sleeve aluminum fin type evaporator is adopted;
3. The copper pipe sleeve aluminum fin type air-cooling condenser is adopted;
4. The fan is driven by belt;
5. The plate-type initial efficiency and medium efficiency filters are set at the return air inlet;
6. The consumed refrigeration power excludes the auxiliary electrical heating power and humidifier power;
7. The maximum input power includes the power of outdoor unit;
8. The refrigerating capacity is based on the following conditions: indoor dry bulb temperature at 23°C, and wet bulb temperature at 17°C;
For the air-cooling outdoor unit, the air inlet dry bulb temperature at 35°C and the wet bulb temperature at 24°C;
9. Operating range of unit: during refrigeration, the maximum indoor air inlet temperature at 32°C, and the minimum air inlet temperature at 21°C.
The maximum outdoor air inlet temperature at 43°C, the minimum air inlet temperature at 5°C, the maximum water inlet temperature of water-cooling machine at 34°C, and the minimum water inlet temperature at 20°C;
10. R410A or R407C environmental refrigerant unit is also provided by the Company. Contact the Company for specific parameters.
Specifications are subject to change for the product improvement without prior notice.

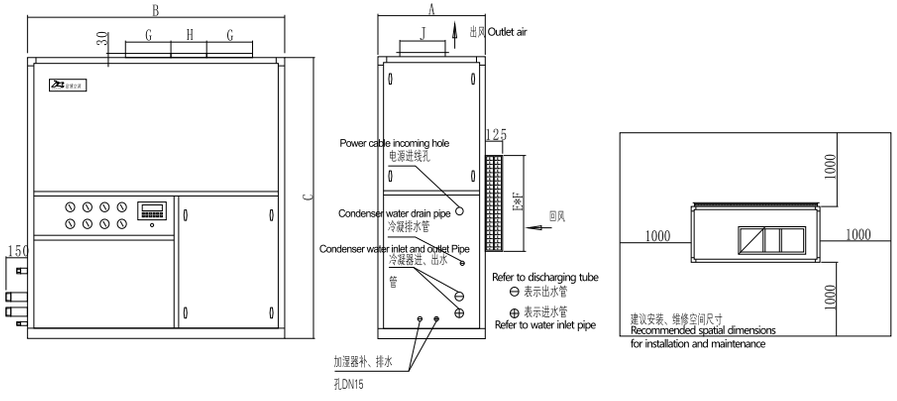
水/风冷柜式空调机组外形尺寸
Boundary Dimensions of Water/air-cooling Cabinet-type Air Conditioning Units



型号(Model)		A	B	C	E	F	G	H	J	冷凝器进出水管DN Condenser water inlet and discharging tubes DN	冷凝水排水管DN Condensate water drain pipe DN	回风法兰（长*宽） Return air flange (length*width)	出风法兰（长*宽） Air supply flange (length*width)
SLG(H)-	FLG(H)-												
17	15	700	1100	1450	1015	430	255	--	255	40	25	1015*430	255*255
35	30	750	1350	1630	1265	560	360	--	360	50	25	1265*560	360*360
40	35	800	1350	1800	1265	660	360	--	360	50	25	1265*660	360*360
50	45	900	1800	1850	1715	660	405	--	405	50	25	1715*660	405*405
60	55	900	1800	2030	1715	760	455	--	455	50	25	1715*760	455*455
80	70	950	1850	1750	1765	1050	360	280	360	65	32	1765*1050	360*360*2
100	85	1000	2000	1850	1915	1275	405	315	405	65	32	1916*1275	405*405*2
120	100	1100	2200	1850	2115	1260	455	355	455	65	32	2115*1260	455*455*2
140	120	1200	2400	2030	2315	1440	505	400	505	80	32	2315*1440	505*505*2
160	135	1200	2400	2180	2315	1590	505	400	505	80	32	2315*1590	505*505*2
180	155	1280	2700	2130	2615	1440	565	450	565	80	32	2615*1440	565*565*2
200	170	1280	2700	2280	2615	1600	565	450	565	80	32	2615*1600	565*565*2

注：风冷式机组无冷凝器进出水管。
带辅助电加热机组A尺寸+100mm
Note:
The air-cooling unit has no condenser water inlet and discharging tubes.
Dimensions of unit A with auxiliary electrical heating +100 mm

水/风冷洁净式恒温恒湿空调机组外形尺寸
Boundary dimensions of water/air-cooling clean constant temperature and constant humidity air conditioning units

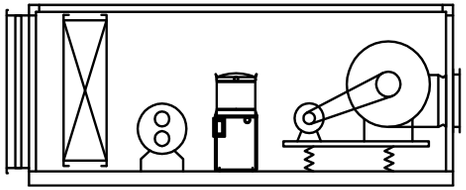


型号(Model)		A	B	C	E	F	G	H	J	冷凝器进出水管DN Condenser water inlet and discharging tubes DN	冷凝水排水管DN Condensate water drain pipe DN	回风法兰（长*宽） Return air flange (length*width)	出风法兰（长*宽） Air supply flange (length*width)
SLHS-	FLHS-												
17	15	800	1150	1450	1060	430	255	--	255	40	25	1060*430	255*255
35	30	900	1600	1700	1510	560	360	--	360	50	25	1510*560	360*360
40	35	900	1600	1850	1510	660	405	--	405	50	25	1510*660	405*405
50	45	950	1950	1950	1860	660	455	--	455	50	25	1860*660	455*455
60	55	950	1950	2030	1860	760	455	--	455	50	25	1860*760	455*455
80	70	1100	1950	1750	1860	1050	360	280	360	65	32	1860*1050	360*360*2
100	85	1100	2000	1850	1910	1205	405	315	405	65	32	1910*1200	405*405*2
120	100	1200	2250	1900	2160	1220	455	355	455	80	32	2160*1220	455*455*2
140	120	1285	2400	2030	2310	1420	505	400	505	80	32	2310*1420	505*505*2
160	135	1285	2400	2180	2310	1590	505	400	505	80	32	2310*1590	505*505*2
180	155	1380	2700	2130	2610	1440	565	450	565	80	32	2610*1440	565*565*2
200	170	1380	2700	2280	2610	1590	565	450	565	80	32	2610*1590	566*566*2

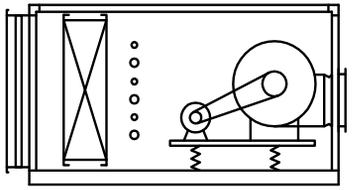
注：风冷式机组无冷凝器进出水管。
Note: The air-cooling unit has no condenser water inlet and discharging tubes.

L F型组合方式
LF Type Combination Mode

水冷吊顶式：
Water-cooling suspended ceiling type:



风冷吊顶式：
Air-cooling suspended ceiling type:



功能段：外置过滤段+制冷段（水冷/风冷）+风机段
Functional sections: external filter section + refrigeration section (water-cooling/air-cooling) + fan section

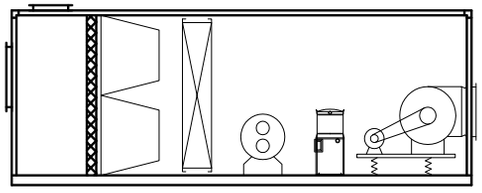
型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	水流量 Water flow rate	水阻力 Water resistance	冷却水管 Cooling water pipe	外形尺寸 Boundary dimensions		
SLG(H)-	m³/h	m³/h	kW	Pa	kW	kW	m³/h	kPa	DN	长(mm) Length	宽(mm) Width	高(mm) Height
17	3000	±10%	16.2	150	0.75	4.75	3.6	24	40	1650	1100	740
35	5500		33.4	250	1.5	9.5	7.3	28	50	1650	1600	740
40	6500		40.8	250	1.5	11.8	9.0	30	50	1750	1600	840
50	8500		49.2	250	2.2	14.2	10.8	30	50	1850	1900	940
60	11000		60.2	300	3	18.2	13.2	30	50	2200	1550	1215
80	13000		77.2	300	4	22.2	17.0	30	65	2200	1650	1415
100	16000		100.8	400	5.5	28.8	22.2	35	65	2200	1950	1430
120	20000		117.6	400	7.5	33.6	25.9	35	65	2200	2050	1530
140	22500		137.1	400	7.5	38.2	30.2	38	80	2600	2050	1730
160	26000		156.8	400	7.5	44.6	34.5	38	80	2600	2250	1930
180	29000		176.4	500	11	52.4	38.8	40	80	2800	2650	1750
200	33000		195.8	500	11	56.8	43.1	40	80	2800	2650	1850

型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	室内机外形尺寸 Dimensions of indoor and outdoor units			室外机型号 Model of outdoor unit
FLG(H)-	m³/h	m³/h	kW	Pa	kW	kW	长Length(mm)	宽Width(mm)	高Height(mm)	
15	3000	±10%	14.2	150	0.75	4.9	1100	1100	555	SW-15
30	5500		28.4	250	1.5	9.8	1100	1600	740	SW-30
35	6500		33.6	250	1.5	11.7	1100	1600	840	SW-35
45	8500		42.8	250	2.2	14.6	1250	1900	940	SW-45
55	11000		52.4	300	3	17.6	1650	1550	1215	SW-55
70	13000		67.2	300	4	23.1	1650	1650	1415	SW-70
85	16000		85	400	5.5	28.3	1650	1950	1430	SW-85
100	20000		102	400	7.5	34.9	1650	2050	1530	SW-100
120	22500		117.6	400	7.5	40.6	2050	2050	1730	SW-120
135	26000		135	400	7.5	44.5	2050	2250	1930	SW-135
155	29000		152	500	11	51.1	2250	2650	1750	SW-155
170	33000		168	500	11	57.3	2250	2650	1850	SW-170

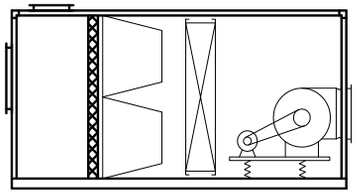
注：
1、机组进出风口位置可根据用户需求灵活调整，标准方式为水平进风、水平下出风；2、所有吊挂式机组控制器外置，配20米通讯线；3、机组其余技术参数及说明见水冷/风冷柜式空调机组参数表；4、以上机组制冷剂为R22,如需其他制冷剂产品，请与欧博公司联系。参数若有修改，恕不另行通知，如需获取最新资料，请与欧博公司联系。
Note:
1. The locations of air inlet and outlet of the unit can be flexibly adjusted as required by the user in the standard ways of horizontal air inlet and horizontal down air outlet;
2. All suspended unit controllers shall be external and equipped with the 20 m communication line;
3. Refer to the table for parameters of water-cooling/air-cooling cabinet-type air conditioning unit for other technical parameters and descriptions of the unit;
4. The refrigerating fluid for above unit is R22. Contact Oubo for other refrigerating fluids.
Parameters will be changed without prior notice. Please contact Oubo for the latest information.

LJF型组合方式
LJF Type Combination Mode

水冷洁净式空调机组：
Water-cooling clean air conditioning unit:



风冷洁净式空调机组：
Air-cooling clean air conditioning unit:



功能段：混合段+初、中效过滤段+制冷段（水冷/风冷）+风机段
Functional sections: mixing section + initial efficiency and medium efficiency filter section + refrigeration section (water-cooling/air-cooling) + fan section

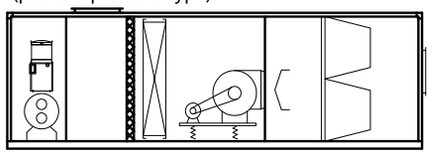
型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	冷却水管 Cooling water pipe	外形尺寸 Boundary dimensions		
SLG(H)-	m³/h	m³/h	kW	Pa	kW	kW	DN	长Length(mm)	宽Width(mm)	高Height(mm)
17	3000	±10%	16.2	650	2.2	5.6	40	3400	850	830
35	5500		33.4	650	4	10.8	50	3400	1250	930
40	6500		40.8	650	4	12	50	3600	1250	1030
50	8500		49.2	650	5.5	15.7	50	3600	1350	1230
60	11000		60.2	650	7.5	21.1	50	3600	1550	1330
80	13000		77.2	650	11	31.4	65	3600	1550	1530
100	16000		100.8	650	11	32.4	65	3800	1850	1530
120	20000		117.6	800	15	39	65	3800	2050	1530
140	22500		137.1	800	18.5	45.9	80	4000	2050	1830
160	26000		156.8	800	22	54	80	4000	2250	2030
180	29000		176.4	800	22	57.4	80	4200	2650	1850
200	33000		195.8	800	30	70	80	4200	2650	1850

型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	室内机外形尺寸 Dimensions of indoor and outdoor units			室外机型号 Model of outdoor unit
FLG(H)-	m³/h	m³/h	kW	Pa	kW	kW	长Length(mm)	宽Width(mm)	高Height(mm)	
15	3000	±10%	14.2	650	2.2	6.5	2850	850	830	SW-15
30	5500		28.4	650	4	12.6	2850	1250	930	SW-30
35	6500		33.6	650	4	14	3050	1250	1030	SW-35
45	8500		42.8	650	5.5	18.4	3050	1350	1230	SW-45
55	11000		52.4	650	7.5	24.7	3050	1550	1330	SW-55
70	13000		67.2	650	11	36.8	3050	1550	1530	SW-70
85	16000		85	650	11	33.3	3250	1850	1530	SW-85
100	20000		102	800	15	45	3250	2050	1530	SW-100
120	22500		117.6	800	18.5	52.8	3450	2050	1830	SW-120
135	26000		135	800	22	62	3450	2250	2030	SW-135
155	29000		152	800	22	66.3	3650	2650	1850	SW-155
170	33000		168	800	30	80	3650	2650	1850	SW-170

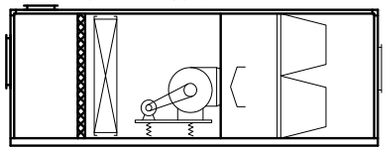
注：
1、机组技术参数见立式水冷柜/风冷柜参数表；2、机组有热泵型、电热型供用户灵活选择，电热型机组长度L增加300mm;
3、所有吊挂式机组控制器外置，配20米通讯线；4、机组进出风口位置可根据用户需求灵活调整。
参数若有修改，恕不另行通知，如需获取最新资料，请与欧博公司联系。
Note:
1. Refer to the table for parameters of vertical water-cooling/air-cooling cabinets for technical parameters and descriptions of the unit;
2. The heat pump type and electric heating type units are optional for users, and the length of the electric heating type unit is increased for 300 mm;
3. All suspended unit controllers shall be external and equipped with the 20 m communication line;
4. The locations of air inlet and outlet of the unit can be flexibly adjusted as required by the user.
Parameters will be changed without prior notice. Please contact Oubo for the latest information.

LJZ型组合方式
LJZ Type Combination Mode

水冷洁净式空调机组（正压型）：
Water-cooling clean air conditioning unit (positive pressure type):



水冷洁净式空调机组（正压型）：
Water-cooling clean air conditioning unit (positive pressure type):



水冷型功能段：压缩冷凝段+混合段+初效过滤段+制冷段+风机段+均流段+中效过滤段+送风段
Water-cooling type functional sections: compressed condensation section + mixing section + initial efficiency filter section + refrigeration section + fan section + equalized flow section + medium efficiency filter section + air supply section
风冷型功能段：混合段+初效过滤段+制冷段+风机段+均流段+中效过滤段+送风段
Air-cooling type functional sections: mixing section + initial efficiency filter section + refrigeration section + fan section + equalized flow section + medium efficiency filter section + air supply section

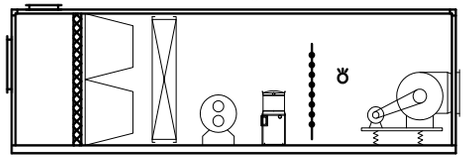
型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	冷却水管 Cooling water pipe	外形尺寸 Boundary dimensions		
SLG(H)-	m³/h	m³/h	kW	Pa	kW	kW	DN	长Length(mm)	宽Width(mm)	高Height(mm)
17	3000	±10%	16.2	650	2.2	5.6	40	4800	850	830
35	5500		33.4	650	4	10.8	50	4800	1250	930
40	6500		40.8	650	4	12	50	5000	1250	1030
50	8500		49.2	650	5.5	15.7	50	5000	1350	1230
60	11000		60.2	650	7.5	21.1	50	5200	1550	1330
80	13000		77.2	650	11	31.4	65	5200	1550	1530
100	16000		100.8	650	11	32.4	65	5600	1850	1530
120	20000		117.6	800	15	39	65	5600	2050	1530
140	22500		137.1	800	18.5	45.9	80	5800	2050	1830
160	26000		156.8	800	22	54	80	5800	2250	2030
180	29000		176.4	800	22	57.4	80	6000	2650	1850
200	33000		195.8	800	30	70	80	6000	2650	1850

型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	室内机外形尺寸 Dimensions of indoor and outdoor units			室外机型号 Model of outdoor unit
FLG(H)-	m³/h	m³/h	kW	Pa	kW	kW	长Length(mm)	宽Width(mm)	高Height(mm)	
15	3000	±10%	14.2	650	2.2	6.5	4150	850	830	SW-15
30	5500		28.4	650	4	12.6	4150	1250	930	SW-30
35	6500		33.6	650	4	14	4350	1250	1030	SW-35
45	8500		42.8	650	5.5	18.4	4350	1350	1230	SW-45
55	11000		52.4	650	7.5	24.7	4550	1550	1330	SW-55
70	13000		67.2	650	11	36.8	4550	1550	1530	SW-70
85	16000		85	650	11	33.3	4950	1850	1530	SW-85
100	20000		102	800	15	45	4950	2050	1530	SW-100
120	22500		117.6	800	18.5	52.8	5150	2050	1830	SW-120
135	26000		135	800	22	62	5150	2250	2030	SW-135
155	29000		152	800	22	66.3	5350	2650	1850	SW-155
170	33000		168	800	30	80	5350	2650	1850	SW-170

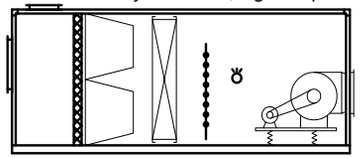
注：
1、机组技术参数见立式水冷柜/风冷柜参数表；2、机组有热泵型、电热型供用户灵活选择，电热型机组长度L增加300mm；
3、所有吊挂式机组控制器外置，配20米通讯线；4、机组进出风口位置可根据用户需求灵活调整。
参数若有修改，恕不另行通知，如需获取最新资料，请与欧博公司联系。
Note:
1. Refer to the table for parameters of vertical water-cooling/air-cooling cabinets for technical parameters and descriptions of the unit;
2. The heat pump type and electric heating type units are optional for users, and the length of the electric heating type unit is increased for 300 mm;
3. All suspended unit controllers shall be external and equipped with the 20 m communication line;
4. The locations of air inlet and outlet of the unit can be flexibly adjusted as required by the user.
Parameters will be changed without prior notice. Please contact Oubo for the latest information.

HJF型组合方式
HJF Type Combination Mode

洁净式水冷恒温恒湿机（负压型）：
Clean water-cooling constant temperature and constant humidity machine (negative pressure type):



洁净式风冷恒温恒湿机（负压型）：
Clean air-cooling constant temperature and constant humidity machine (negative pressure type):



水冷型功能段：混合段+初、中效过滤段+制冷段+制热段+加湿段+风机出风段
Water-cooling type functional sections: mixing section + initial efficiency and medium efficiency filter section + refrigeration section + heating section + humidification section + fan air-out section
风冷型功能段：混合段+初、中效过滤段+制冷段+制热段+加湿段+风机出风段
Air-cooling type functional sections: mixing section + initial efficiency and medium efficiency filter section + refrigeration section + heating section + humidification section + fan air-out section

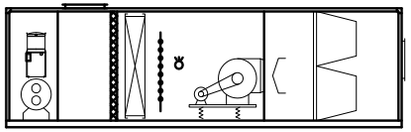
型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	加热量 Heating capacity	加湿量 Humidifying capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	冷却水管 Cooling water pipe	外形尺寸 Boundary dimensions		
SLHS-	m³/h	m³/h	kW	kW	kg/h	Pa	kW	kW	DN	长(mm) Length	宽(mm) Width	高(mm) Height
17	3000	±10%	16.2	7.5	4	650	2.2	16.2	40	4200	850	830
35	5500		33.4	15	8	650	4	32.0	50	4200	1250	930
40	6500		40.8	20	12	650	4	41.4	50	4400	1250	1030
50	8500		49.2	25	15	650	5.5	52.4	50	4400	1350	1230
60	11000		60.2	30	15	650	7.5	62.8	50	4400	1550	1330
80	13000		77.2	35	20	650	11	82.0	65	4400	1550	1530
100	16000		100.8	45	25	650	11	96.9	65	4600	1850	1530
120	20000		117.6	55	30	800	15	117.4	65	4600	2050	1530
140	22500		137.1	65	35	800	18.5	138.2	80	4800	2050	1830
160	26000		156.8	75	40	800	22	160.2	80	4800	2250	2030
180	29000		176.4	80	45	800	22	172.5	80	5000	2650	1850
200	33000		195.8	80	45	800	30	185.1	80	5000	2650	1850

型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	加热量 Heating capacity	加湿量 Humidifying capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	室内机外形尺寸 Dimensions of indoor unit			室外机型号 Model of outdoor unit
FLHS-	m³/h	m³/h	kW	kW	kg/h	Pa	kW	kW	长(mm) Length	宽(mm) Width	高(mm) Height	
15	3000	±10%	14.2	7.5	4	650	2.2	17.1	3550	850	830	SW-15
30	5500		28.4	15	8	650	4	33.8	3550	1250	930	SW-30
35	6500		33.6	15	12	650	4	38.4	3750	1250	1030	SW-35
45	8500		42.8	20	15	650	5.5	50.1	3750	1350	1230	SW-45
55	11000		52.4	25	15	650	7.5	61.4	3750	1550	1330	SW-55
70	13000		67.2	30	20	650	11	82.4	3750	1550	1530	SW-70
85	16000		85	40	25	650	11	92.8	3950	1850	1530	SW-85
100	20000		102	50	30	800	15	118.4	3950	2050	1530	SW-100
120	22500		117.6	60	35	800	18.5	140.1	4150	2050	1830	SW-120
135	26000		135	60	40	800	22	153.2	4150	2250	2030	SW-135
155	29000		152	70	45	800	22	171.4	4350	2650	1850	SW-155
170	33000		168	80	45	800	30	195.1	4350	2650	1850	SW-170

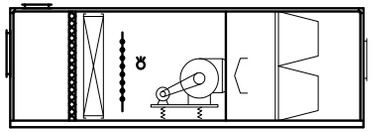
注：
所有风冷式机组有热泵型、电热型供用户灵活选择，所有吊挂式机组控制器外置，配20米通讯线；
The heat pump type and electric heating type air-cooling units are optional for users. All suspended unit controllers shall be external and equipped with the 20 m communication line;

HJZ型组合方式
HJZ Type Combination Mode

洁净式水冷恒温恒湿机（正压型）：
Clean water-cooling constant temperature and constant humidity machine (positive pressure type)



洁净式风冷恒温恒湿机（正压型）：
Clean air-cooling constant temperature and constant humidity machine (positive pressure type)



水冷型功能段：压缩冷凝段+混合段+初效过滤段+制冷段+制热段+加湿段+风机段+均流段+中效过滤段+送风段
Water-cooling type functional sections: compressed condensation section + mixing section + initial efficiency filter section + refrigeration section + heating section + humidification section + fan section + equalized flow section + medium efficiency filter section + air supply section

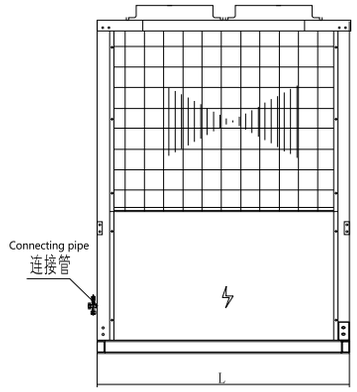
风冷型功能段：混合段+初效过滤段+制冷段+制热段+加湿段+风机段+均流段+中效过滤段+送风段
Air-cooling type functional sections: mixing section + initial efficiency filter section + refrigeration section + heating section + humidification section + fan section + equalized flow section + medium efficiency filter section + air supply section

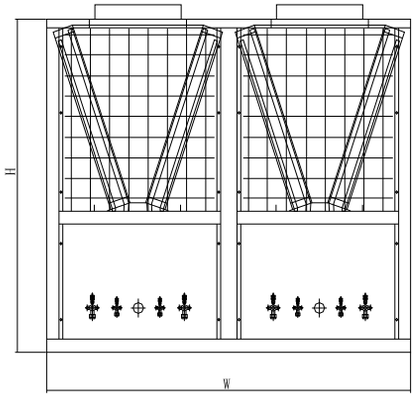
型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	加热量 Heating capacity	加湿量 Humidifying capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	冷却水管 Cooling water pipe	外形尺寸 Boundary dimensions		
SLHS-	m³/h	m³/h	kW	kW	kg/h	Pa	kW	kW	DN	长(mm) Length	宽(mm) Width	高(mm) Height
17	3000	±10%	16.2	7.5	4	650	2.2	16.2	40	5200	850	830
35	5500		33.4	15	8	650	4	32.0	50	5200	1250	930
40	6500		40.8	20	12	650	4	41.4	50	5400	1250	1030
50	8500		49.2	25	15	650	5.5	52.4	50	5400	1350	1230
60	11000		60.2	30	15	650	7.5	62.8	50	5400	1550	1330
80	13000		77.2	35	20	650	11	82.0	65	5400	1550	1530
100	16000		100.8	45	25	650	11	96.9	65	5800	1850	1530
120	20000		117.6	55	30	800	15	117.4	65	5800	2050	1530
140	22500		137.1	65	35	800	18.5	138.2	80	6000	2050	1830
160	26000		156.8	75	40	800	22	160.2	80	6000	2250	2030
180	29000		176.4	80	45	800	22	172.5	80	6200	2650	1850
200	33000		195.8	80	45	800	30	185.1	80	6200	2650	1850

型号 Model	风量 Air Volume	风量范围 Range of air volume	制冷量 Refrigerating capacity	加热量 Heating capacity	加湿量 Humidifying capacity	机外静压 External static pressure	电机功率 Motor power	总功率 Total power	室内机外形尺寸 Dimensions of indoor unit			室外机型号 Model of outdoor unit
FLHS-	m³/h	m³/h	kW	kW	kg/h	Pa	kW	kW	长(mm) Length	宽(mm) Width	高(mm) Height	
15	3000	±10%	14.2	7.5	4	650	2.2	17.1	4550	850	830	SW-15
30	5500		28.4	15	8	650	4	33.8	4550	1250	930	SW-30
35	6500		33.6	15	12	650	4	38.4	4750	1250	1030	SW-35
45	8500		42.8	20	15	650	5.5	50.1	4750	1350	1230	SW-45
55	11000		52.4	25	15	650	7.5	61.4	4750	1550	1330	SW-55
70	13000		67.2	30	20	650	11	82.4	4750	1550	1530	SW-70
85	16000		85	40	25	650	11	92.8	5150	1850	1530	SW-85
100	20000		102	50	30	800	15	118.4	5150	2050	1530	SW-100
120	22500		117.6	60	35	800	18.5	140.1	5350	2050	1830	SW-120
135	26000		135	60	40	800	22	153.2	5350	2250	2030	SW-135
155	29000		152	70	45	800	22	171.4	5550	2650	1850	SW-155
170	33000		168	80	45	800	30	195.1	5550	2650	1850	SW-170

注:
机组有热泵型、电热型供用户灵活选择，所有吊挂式机组控制器外置，配20米通讯线；
Note:
The heat pump type and electric heating type units are optional for users. All suspended unit controllers shall be external and equipped with the 20 m communication line;

单元式空调室外机技术参数表
Table for Technical Parameters of Unitary Air Conditioning Outdoor Unit





注：室外机连接管极限长度25米，高差18米，最多弯头数10个。
Note: The limit length of the connecting pipe of outdoor unit is 25 m, with the height difference of 18 m and the maximum number of bends of 10.

型号 Model SW-	L	W	H	出液管*数量 Outlet pipe * quantity	回气管*数量 Air return pipe * quantity	室外机台数 Number of outdoor units	重量KG Weight
15	750	900	1600	Φ12.7*1	Φ19*1	1	125
30	1250	900	1600	Φ12.7*2	Φ19*2	1	240
35	1450	900	1600	Φ12.7*2	Φ19*2	1	280
45	1900	900	1600	Φ12.7*3	Φ19*3	1	375
55	1250	1800	1600	Φ12.7*4	Φ19*4	1	450
70	1450	1800	1600	Φ12.7*4	Φ19*4	1	500
85	1450	1800	1600	Φ16*2	Φ28*2	1	550
	750	900	1600	Φ12.7*1	Φ19*1	1	125
100	1450	1800	1600	Φ16*2	Φ28*2	1	550
	1450	900	1600	Φ16*1	Φ28*1	1	280
120	1450	1800	1600	Φ16*4	Φ28*4	2	500×2
135	1450	1800	1600	Φ16*4	Φ28*4	2	550×2
155	1450	1800	1600	Φ16*4	Φ28*4	2	550×2
	750	900	1600	Φ12.7*1	Φ19*1	1	125
170	1450	1800	1600	Φ16*4	Φ28*4	2	550×2
	1450	900	1600	Φ16*1	Φ28*1	1	280

注：室外机的安装位置应远离易燃易爆、多尘、低凹、高温场所。请保证机组周围有足够的空间，以利于进风、出风、维修。任何障碍物都会对机组的制冷/制热量有影响，并会对今后机组的维护和保养带来不便。室外机应有足够的散热空间，室外机摆放应避免排风断路。
Note: The outdoor unit shall be installed in the place away from inflammables and explosives, dust, indentation and high temperature. Please ensure sufficient space around the unit for the air intake, air out and maintenance. Any barrier will influence the refrigerating/heating capacities of the unit and cause inconvenience for the future unit maintenance. Sufficient heat dissipation space is required for the outdoor unit, which shall be placed to avoid the exhaust short circuit.

风冷模块式冷（热）水机组
Air-cooling Modular Cold (Hot) Water Unit

一、概述Overview

欧博空调风冷模块式冷（热）水机组创新性运用了模块化设计方案，使该系列机组在具有普通整体风冷冷热水机组特点的同时，还兼备运用灵活、安装方便等特点，是工商业以及住宅空调设备的最佳选择。该系列机组包含65kW、75kW、100kW、130kW、150kW 五个基本单元可以选择组合，最大制冷量可以组合到1500KW,包括单冷热泵系列。

The modular design scheme has been used innovatively in the Oubo air conditioning air-cooling modular cold (hot) water unit, so that this series of units have the features of the ordinary entire air-cooling cold and hot water unit and are featured by flexible utilization and easy installation and the best choice as the air conditioning equipment of the industry, commerce and residences. This series of units include five basic units, including 65kW, 75kW, 100kW, 130kW and 150kW, which will be combined in use. The maximum refrigerating capacity can be combined to 1,500 KW, including the heat pump series with cooling function only.

二、型号说明Model Description

FLM — 65 — H — F

制冷剂：R22不予表示；F表示R134a制冷剂；
Refrigerating fluid: Excluding R22, F refers to R134a refrigerating fluid
B表示407C制冷剂；E表示R410A制冷剂。
B refers to 407C refrigerating fluid and E refers to R410A refrigerating fluid

特征：单冷型机组不予表示,CA表示常年制冷型;H表示热泵型;HR表示热泵型带部分热回收;R表示单冷型带部分热回收;HQR表示热泵型带全热回收;DH表示低环温热泵机组。
Features: Excluding the unit with cooling function only, CA refers to the perennial refrigeration type;H refers to the heat pump type, and HR refers to the heat pump type with partial heat recovery;R refers to the cooling function only with partial heat recovery, and HQR refers to the heat pump type with total heat;DH refers to the low environment temperature heat pump unit.

名义制冷量 kW
Nominal refrigerating capacity: KW

欧博风冷模块式冷（热）水机组
Air-cooling modular cold (hot) water unit of Oubo

风冷模块式冷（热）水机组（R22）
Air-cooling Modular Cold (Hot) Water Unit (R22)

型号(Model) FLM-			65	75	100	130	150	200	225	260	300	400
组合方式 Combination mode			65	75	100	130	150	100*2	75*3	130*2	150*2	130*3
名义制冷量 Nominal refrigerating capacity		KW	65.4	74.8	100	130.8	149.6	200	224.4	261.6	299.2	392.4
名义制热量 Nominal heating capacity		KW	68.7	78.5	105.0	137.3	157.1	210	235.6	274.68	314.16	412.02
热回收量（选配） Heat recovery capacity (optional)		KW	19.6	22.4	30	39.2	44.8	60	67.2	78.4	89.6	117.6
辅助电加热（选配） Auxiliary electrical heating (optional)		KW	20.0	20.0	30	40	40	60	60	80	80	120
主电源 Main power supply			380V/3P/50HZ									
输入功率 Input power		KW	19.8	22.4	31.0	39.6	44.8	62.0	67.2	79.2	89.6	118.8
压缩机形式 Compressor type			全封闭涡旋式 Fully enclosed vortex-type									
蒸发器 Evaporator	形式 Type	/	干式壳管式蒸发器 Dry-type shell and tube evaporator									
	水流量 Water flow rate	m^3/h	11.2	12.9	17.2	22.5	25.8	34.4	38.7	44.7	51.6	68.8
	水阻力 Water resistance	kPa	50	52	54	50	52	54	56	50	54	56
	进出水管 Inlet and outlet pipes	DN	Dn65外螺纹 DN65 external thread			Dn80外螺纹 DN80 external thread		每个模块DN65外螺纹 DN65 external thread for each module		DN80*2		DN80*3
热回收器 Heat recovery device	形式 Type	/	干式壳管式蒸发器 Dry-type shell and tube evaporator									
	水流量 Water flow rate	m^3/h	2.2	2.6	3.4	4.5	5.1	6.9	7.7	9.0	10.3	13.5
	水阻力 Water resistance	kPa	24	26	28	24	26	28	30	32	32	34
	进出水管 Inlet and outlet pipes	DN	Dn25外螺纹 DN25 external thread			Dn40外螺纹 DN40 external thread		每个模块DN25外螺纹 DN25 external thread for each module		DN40*2		DN40*3
机组外型尺寸 External dimensions of unit	长（L） Length	mm	1750	2050	2660	1750	2050	2660	2050	1750	2050	2660
	宽（W） Width	mm	1050	1050	1050	2100	2100	2100	3150	4200	4200	4200
	高（H） Height	mm	2070									
机组重量 Weight of unit		kg	720	780	1000	1340	1560	2000	2340	2680	3000	4000
运行重量 Operating weight		kg	740	840	1080	1440	1680	2160	2520	2880	3240	4320

Note:

1. Refrigeration conditions: cold water inlet temperature at 12°C, cold water outlet temperature at 7°C, environmental dry bulb temperature at 35°C and wet bulb temperature at 24°C;
   Heating conditions: hot water inlet temperature at 40°C, hot water outlet temperature at 45°C, and outdoor environment temperature at 7°C;
2. Power supply system: 3P-380V-50HZ, permissible voltage fluctuation of ±10%, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. When the outer environment temperature is lower than 2°C or in case of shutdown for a long time, the water accumulated inside the evaporator shall be eliminated to prevent the frost crack;
5. For the above standard product, the refrigeration operation is not allowed when the environment temperature is lower than 16°C. Please contact the Company for any related information;
6. Please indicate the products with non-standard requirements in orders, which may be designed and produced as required by user;
7. Multiple specifications may be randomly combined, and 12 modules can be combined to the greatest extent according to the cooling capacity. Some combinations of models are shown only in the above tables;
8. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts.

风冷模块式冷（热）水机组（R407C）
Air-Cooling Modular Cold (Hot) Water Unit (R407C)

型号(Model) FLM-			65	75	100	130	150	200	225	260	300	400
组合方式 Combination mode			65	75	100	130	150	100*2	75*3	130*2	150*2	130*3
名义制冷量 Nominal refrigerating capacity		KW	64.1	73.2	98.2	128.2	146.4	196.4	219.6	256.4	292.8	384.6
名义制热量 Nominal heating capacity		KW	67.3	76.9	103.1	134.6	153.7	206.2	230.6	269.2	307.4	403.8
热回收量（选配） Heat recovery capacity (optional)		KW	19.6	22.4	30	39.2	44.8	60	67.2	78.4	89.6	117.6
辅助电加热（选配） Auxiliary electrical heating (optional)		KW	20.0	20.0	30	40	40	60	60	80	80	120
主电源 Main power supply			380V/3P/50HZ									
输入功率 Input power		KW	20.4	23.2	31.6	40.8	46.4	63.2	69.6	81.6	92.8	122.4
压缩机形式 Compressor type			全封闭涡旋式 Fully enclosed vortex-type									
蒸发器 Evaporator	形式 Type	/	干式壳管式蒸发器 Dry-type shell and tube evaporator									
	水流量 Water flow rate	m³/h	11.2	12.9	17.2	22.5	25.8	34.4	38.7	44.7	51.6	68.8
	水阻力 Water resistance	kPa	50	52	54	50	52	54	56	50	54	56
	进出水管 Inlet and outlet pipes	DN	Dn65外螺纹 DN65 external thread			Dn80外螺纹 DN80 external thread		每个模块DN65外螺纹 DN65 external thread for each module		DN80*2		DN80*3
热回收器 Heat recovery device	形式 Type	/	干式壳管式蒸发器Dry-type shell and tube evaporator									
	水流量 Water flow rate	m³/h	2.2	2.6	3.4	4.5	5.1	6.9	7.7	9.0	10.3	13.5
	水阻力 Water resistance	kPa	24	26	28	24	26	28	30	32	32	34
	进出水管 Inlet and outlet pipes	DN	Dn25外螺纹 DN25 external thread			Dn40外螺纹 DN40 external thread		每个模块DN25外螺纹 DN25 external thread for each module		DN40*2		DN40*3
机组外型尺寸 External dimensions of unit	长（L） Length	mm	1750	2050	2660	1750	2050	2660	2050	1750	2050	2660
	宽（W） Width	mm	1050	1050	1050	2100	2100	2100	3150	4200	4200	4200
	高（H） Height	mm	2070									
机组重量 Weight of unit		kg	720	780	1000	1340	1560	2000	2340	2680	3000	4000
运行重量 Operating weight		kg	740	840	1080	1440	1680	2160	2520	2880	3240	4320

Note:

1. Refrigeration conditions: cold water inlet temperature at 12°C, cold water outlet temperature at 7°C, environmental dry bulb temperature at 35°C and wet bulb temperature at 24°C;
   Heating conditions: hot water inlet temperature at 40°C, hot water outlet temperature at 45°C, and outdoor environment temperature at 7°C;
2. Power supply system: 3P-380V-50HZ, permissible voltage fluctuation of ±10%, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. When the outer environment temperature is lower than 2°C or in case of shutdown for a long time, the water accumulated inside the evaporator shall be eliminated to prevent the frost crack;
5. For the above standard product, the refrigeration operation is not allowed when the environment temperature is lower than 16°C. Please contact the Company for any related information;
6. Please indicate the products with non-standard requirements in orders, which may be designed and produced as required by user;
7. Multiple specifications may be randomly combined, and 12 modules can be combined to the greatest extent according to the cooling capacity. Some combinations of models are shown only in the above tables;
8. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts.

风冷模块式冷（热）水机组（R410A）
Air-Cooling Modular Cold (Hot) Water Unit (R410A)

型号(Model) FLM-			65	100	130	200	260	300	400
组合方式 Combination mode			65	100	130	100*2	130*2	100*3	130*3
名义制冷量 Nominal refrigerating capacity		KW	66	100	130	200	260	300	390
名义制热量 Nominal heating capacity		KW	70	105	140	210	280	315	420
主电源 Main power supply			380V/3P/50HZ						
制冷输入功率 Refrigerating input power		KW	21	32	42	64	84	96	126
制热输入功率 Heating input power		KW	19.5	29	39	58	76	87	117
压缩机 Compressor	形式 Type	/	柔性涡旋式压缩 Flexible vortex-type compressor						
	数量 Nos.	个	2	3	4	6	8	9	12
水侧换热器 Water-side heat exchanger	形式 Type	/	壳管式换热器 Shell and tube heat exchanger						
	水流量 Water flow rate	m³/h	11.2	17.2	22.4	34.4	44.7	51.6	67.1
	水阻力 Water resistance	KPa	≤60						
	进出水管 Inlet and outlet pipes	法兰 Flange	DN65		DN80	DN65×2	DN80×2	DN65×3	DN80×3
空气侧换热器 Air-side heat exchanger			内螺纹铜管串亲水铝箔 Internal thread copper pipe string hydrophilic aluminum foil						
风机 Fan	形式 Type	/	轴流风机 Axial flow fan						
	数量 Quantity	个	2	2	2	4	4	6	6
外型尺寸 Boundary dimensions	长 Length	mm	2250	2250	2250	2250	2250	2250	2250
	宽 Width	mm	1050	1050	1200	2100	2600	3150	3900
	高 Height	mm	2150	2200	2200	2200	2200	2200	2200
机组重量 Weight of unit		Kg	750	950	1250	1900	2500	2850	3750
运行重量 Operating weight		Kg	840	1050	1350	2100	2700	3150	4050

注：

1、制冷工况：冷水进水温度12℃,冷水出水温度7℃,环境干球温度35℃,湿球24℃;
制热工况：热水进水温度40℃,热水出水温度45℃,室外环境温度7℃;

2、电源制式：3P-380V-50Hz,允许电压波动±10%,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、当外界环境温度低于2℃或长期停机不用时，应排尽蒸发器内积水，以防冻裂；

5、以上标准产品，在环境温度低于16℃时不允许制冷运行，有该方面需求请向公司联系；

6、有非标要求产品请在订货单中说明，可根据用户要求设计生产；

7、多种规格可以任意组合，根据冷量最大可组合到12个模块，上述表中型号只是部分组合；

8、由于技术改进，外形尺寸会有变更，故本样本外形尺寸仅供参考，请索取准确安装尺寸图。

低温强热风冷模块式冷（热）水机组（R410A）
Low Temperature and Strong Heat Air-cooling Modular Cold (Hot) Water Unit (R410A)

型号(Model) FLM-			65	130	200	260	325	400
组合方式 Combination mode			65	65*2	65*3	65*4	65*5	65*6
名义制冷量 Nominal refrigerating capacity		KW	65	130	195	260	325	390
名义制热量 Nominal heating capacity		KW	70	140	210	280	350	420
辅助电加热（选配） Auxiliary electrical heating (optional)		KW	20	40	60	80	100	120
主电源 Main power supply			380V/3P/50HZ					
输入功率 Input power		KW	19.8	39.6	59.4	79.2	99	118.8
压缩机 Compressor	形式 Type		柔性涡旋式压缩机 Flexible vortex-type compressor					
	数量 Nos.		2	4	6	8	10	12
蒸发器 Evaporator	形式 Type		壳管式换热器 Shell and tube heat exchanger					
	水流量 Water flow rate	m^3/h	11.2	22.4	33.5	44.7	44.8	67.1
	水阻力 Water resistance	KPa	≤60					
	进出水管 Inlet and outlet pipes	螺纹 Thread	每个模块DN65外螺纹 DN65 external thread for each module					
外型尺寸 Boundary dimensions	长 Length	mm	2250	2250	2250	2250	2250	2250
	宽 Width	mm	1050	2100	3150	4200	5250	6300
	高 Height	mm	2200	2200	2200	2200	2200	2200
机组重量 Weight of unit		Kg	750	1500	2250	3000	3750	4500
运行重量 Operating weight		Kg	840	1680	2520	3360	4200	5040

Note:
1. Refrigeration conditions: cold water inlet temperature at 12°C, cold water outlet temperature at 7°C, environmental dry bulb temperature at 35°C and wet bulb temperature at 24°C;
   Heating conditions: hot water inlet temperature at 40°C, hot water outlet temperature at 45°C, and outdoor environment temperature at 7°C;
2. Power supply system: 3P-380V-50HZ, permissible voltage fluctuation of ±10%, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. When the outer environment temperature is lower than 2°C or in case of shutdown for a long time, the water accumulated inside the evaporator shall be eliminated to prevent the frost crack;
5. For the above standard product, the refrigeration operation is not allowed when the environment temperature is lower than 16°C. Please contact the Company for any related information;
6. Please indicate the products with non-standard requirements in orders, which may be designed and produced as required by user;
7. Multiple specifications may be randomly combined, and 12 modules can be combined to the greatest extent according to the cooling capacity. Some combinations of models are shown only in the above tables;
8. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts.

大冷量风冷模块机冷(热）水机组（R410A）
Large Cooling Capacity Air-cooling Modular Cold (Hot) Water Unit (R410A)

组合方式（Combination mod)FLM-			350	470	590	350*2	350+470	470*2
名义制冷量 Nominal refrigerating capacity	KW		353	471	588	706	824	940
名义制热量 Nominal heating capacity	KW		380	506	633	760	886	1012
主电源 Main power supply			380V/3P/50HZ					
制冷输入功率 Refrigerating input power	KW		110	147.2	183.1	220	257.2	294.4
制热输入功率 Heating input power	KW		107	142	177.6	214	249	284
压缩机 Compressor	形式 Type		柔性涡旋式压缩机 Flexible vortex-type compressor					
	数量 Nos		3	4	5	6	7	8
水侧换热器 Water-side heat exchanger	形式 Type		壳管式换热器 Shell and tube heat exchanger					
	水流量 Water flow rate	m^3/h	60.7	81.0	101.1	121.4	141.7	161.7
	水阻力 Water resistance	KPa	≤60					
	进出水管 Inlet and outlet pipes	法兰 Flange	DN125		DN150	DN125×2	DN125×2	DN125×2
空气侧换热器 Air-side heat exchanger			内螺纹铜管串亲水铝箔 Internal thread copper pipe string hydrophilic aluminum foil					
风机 Fan	形式 Type		轴流风机 Axial flow fan					
	数量 Nos		6	8	10	12	14	16
外型尺寸 Boundary dimensions	长 Length	mm	3300	4300	5300	3300+500+3300	3300+500+4300	4300+500+4300
	宽 Width	mm	2260	2260	2260	2260	2260	2260
	高 Height	mm	2620	2620	2620	2620	2620	2620
机组重量 Weight of unit		Kg	3894	5135	5939	7788	9029	10270
运行重量 Operating weight		Kg	4144	5389	6245	8288	9533	10778

注：
1、制冷工况：冷水进水温度12℃,冷水出水温度7℃,环境干球温度35℃；
制热工况：热水进水温度40℃,热水出水温度45℃,室外环境干球温度7℃,湿球温度6℃；
2、电源制式：3P-380V-50Hz,允许电压波动±10%,允许相间电压差±2%；
3、机组制热时，最低环境温度：-20℃,最高出水温度55℃；
4、当外界环境温度低于2℃或长期停机不用时，应排尽蒸发器内积水，以防冻裂；
5、以上标准产品，在环境温度低于16℃时不允许制冷运行，有该方面需求请向公司联系；
6、有非标要求产品请在订货单中说明，可根据用户要求设计生产；
7、多种规格可以任意组合，根据冷量最大可组合到12个模块，上述表中型号只是部分组合；
8、由于技术改进，外形尺寸会有变更，故本样本外形尺寸仅供参考，请索取准确安装尺寸图。

水冷螺杆式冷水机组
Water-cooling Screw-type Water Chilling Unit

一、概述 Overview

欧博SL系列水冷螺杆式冷水机组设计简洁，采用先进的半封闭式双螺杆压缩机，结合最新技术设计的高效管换热器，配以先进微电脑控制技术，产品具有系统稳定，振动小，可靠性高，运行高效节能等优势；涡旋式冷水机组采用高效节能低噪音涡旋式压缩机，每台机组配置多个机头，便于能量控制，达到节能运行目的。

欧博SL系列水冷螺杆式冷水机组有高效干式机组、满液式机组、降膜式机组三大系列产品供用户灵活选用。

产品广泛应用于各种舒适、工艺场合。

With simple design, Oubo SL series of water-cooling screw type water chilling unit adopts the advanced semi-closed twin screw compressor, combining the efficient pipe heat exchanger designed by the latest technology and is equipped with the advanced microcomputer control technology. The product is advantageous in stable system, small vibration, high reliability, efficient operation, energy saving, etc. The vortex-type water chilling unit adopts the efficient and energy-saving vortex-type compressor with low noise. Each unit is equipped with multiple handpieces for the energy control to reach the goal of energy-saving operation.

Oubo SL series of water-cooling screw water chilling units include efficiency dry-type unit, hydraulic filling type unit and falling film type unit for the flexible selection by users.

The product is widely applied in all comfortable and process occasions.

二、特点 Features

机组采用国际知名品牌压缩机，性能可靠多系统对称式结构设计，结构紧凑，振动小，所占空间小，采用国际知名品牌的元器件。工艺等级微电脑控制技术+大触摸屏显示屏，实现了“一键开机”和全自动运行。

The unit adopts the compressor in the international well-known brand with reliable performance, multiple system heating type structural design, compact structure, small vibration and small space occupied. The components and parts in the international well-known brands are used with the process class microcomputer control technology + large touch screen to achieve the "start by one key" and full automatic operation.

三、型号说明 Model descriptions

SL — LG — 2 — 360 — M — RA

- RA：R表示带热回收，A表示R134A制冷剂，R22制冷剂可略写
  R refers to the heat recovery, and A refers to R134A refrigerating fluid (brief writing is possible for R22 refrigerating fluid)
- M：M为满液式机组，干式冷水机组可略写
  M refers to the hydraulic filling unit (brief writing is possible for dry-type water chilling unit)
- 360：数字表示机组型号
  Number refers to the unit model
- 2：2为双压缩机，1为单压缩机，涡旋式冷水机组可略写
  2 refers to double compressor and 1 refers to single compressor (brief writing is possible for vortex-type water chilling unit)
- LG：LG为螺杆式压缩机，WX为涡旋式压缩机
  LG refers to the screw compressor and WX refers to the vortex-type compressor
- SL：欧博空调水冷式冷水机组
  Oubo Air Conditioning water-cooling water chilling unit

水冷螺杆式冷水机组(单压缩机)R22
Water-cooling Screw-type Water Chilling Unit (Single Compressor) R22

型号(Model):SL-LG1-			160	230	280	340	390	430
制冷量 Refrigerating capacity		KW	167.3	246	285.7	352.9	401.4	458.6
		RT	47.6	69.9	81.2	100.3	114.1	130.4
		kcal/h	143878	211580	245702	303494	345204	394396
热回收量 Heat recovery quantity		KW	50.2	73.8	85.7	105.9	120.4	137.6
输入功率 Input power		KW	34.4	49.4	58.1	72.4	82.4	93
额定电流 Rated current		A	55.8	81.2	91.5	100.3	111.4	126.7
能效值 Value of energy efficiency		COP	4.86	4.98	4.92	4.87	4.87	4.93
启动方式 Starting mode			Y-Δ启动 Starting					
能量控制 Energy control			25%-50%-75%-100%(四段容调Four-section capacity adjustment)					
冷凝器 Condenser	型式 Type		壳管式冷凝器 Shell and tube condenser					
	水管直径 Water pipe diameter	DN	80	80	100	100	100	125
	水流量 Water flow rate	m^3/h	34.0	49.2	60.3	73.5	85.3	94.2
	水压降 Water pressure drop	Kpa	55	60	60	60	62	62
蒸发器 Evaporator	型式 Type		干式壳管式蒸发器 Dry-type shell and tube evaporator					
	水管直径 Water pipe diameter	DN	80	80	100	100	100	125
	水流量 Water flow rate	m^3/h	26.7	38.7	47.4	57.8	67.0	74.0
	水压降 Water pressure drop	Kpa	50	55	55	55	60	60
制冷剂型号 Refrigerating fluid No.			R22					
节流方式 Throttle mode			热力膨胀阀 Thermal expansion valve					
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	2650	2650	3150	3150	3150	3150
	宽Width (W)	MM	1100	1150	1150	1200	1200	1300
	高Height (H)	MM	1400	1400	1400	1400	1400	1400
运输重量Transport weight		KG	1350	1600	1900	2080	2180	2505
运行重量Operating weight		KG	1480	1800	2050	2290	2390	2750

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

水冷螺杆式冷水机组(单压缩机)R22
Water-cooling Screw-type Water Chilling Unit (Single Compressor) R22

型号(Model):SL-LG1-			530	600	690	810	920	1050	1200	1350	1500
制冷量 Refrigerating capacity		KW	568.6	624.3	702.9	860	988.6	1134.3	1284.3	1387.5	1538.6
		RT	161.7	177.5	199.9	244.5	281.1	322.5	365.2	394.4	437.5
		kcal/h	488996	536898	604494	739600	850196	975498	1104498	1192992	1323198
热回收量 Heat recovery quantity		KW	170.6	187.3	210.9	258.0	296.6	340.3	385.3	416.2	461.6
输入功率 Input power		KW	109.2	114.5	128.6	152.7	174.2	197.2	223.1	233.1	254.7
额定电流 Rated current		A	160.0	172.4	197.1	230	267	297	336	393.0	430.0
能效值 Value of energy efficiency		COP	5.21	5.45	5.47	5.63	5.68	5.75	5.76	5.95	6.04
启动方式 Starting mode			Y-Δ启动 Starting								
能量控制 Energy control			25%-50%-75%-100%(四段容调Four-section capacity adjustment)								
冷凝器 Condenser	型式 Type		壳管式冷凝器 Shell and tube condenser								
	水管直径 Water pipe diameter	DN	125	150	150	150	200	200	200	200	200
	水流量 Water flow rate	m³/h	116.7	132.4	150.3	177.1	202.6	231.2	264.2	292.3	329.8
	水压降 Water pressure drop	Kpa	65	65	68	70	75	75	75	68	68
蒸发器 Evaporator	型式 Type		干式壳管式蒸发器 Dry-type shell and tube evaporator								
	水管直径 Water pipe diameter	DN	125	150	150	150	200	200	200	200	200
	水流量 Water flow rate	m³/h	91.7	104.0	118.1	138.4	158.3	180.6	208.4	228.4	257.7
	水压降 Water pressure drop	Kpa	63	63	63	65	70	80	80	63	65
制冷剂型号 Refrigerating fluid No.			R22								
节流方式 Throttle mode			热力膨胀阀 Thermal expansion valve								
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	3150	3150	3850	3850	3850	3850	3850	3850	3850
	宽Width (W)	MM	1300	1350	1350	1400	1500	1500	1550	1650	1650
	高Height (H)	MM	1400	1450	1450	1500	1800	1800	1700	1850	1850
运输重量Transport weight		KG	2565	2990	3180	3390	3610	3880	4120	4220	4420
运行重量Operating weight		KG	2880	3320	3490	3697	3987	4215	4680	4720	4932

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

水冷螺杆式冷水机组(双压缩机)R22
Water-cooling Screw-type Water Chilling Unit (Double Compressor) R22

型号(Model):SL-LG2-			320	480	550	660	760	880	950
制冷量 Refrigerating capacity		KW	334.6	492	571.4	684	788	892	998.4
		RT	95.1	139.9	162.5	194.5	224.1	253.6	283.9
		kcal/h	287756	423120	491404	588240	677680	767120	858624
热回收量 Heat recovery quantity		KW	100.4	147.6	171.4	205.2	236.4	237.6	299.5
输入功率 Input power		KW	69	100	115.2	138.1	157.6	180.6	190
额定电流 Rated current		A	111.6	162.4	183	200	222	254	288.4
能效值 Value of energy efficiency		COP	4.85	4.92	4.96	4.95	5.00	4.94	5.25
启动方式 Starting mode			Y-Δ启动 Starting						
能量控制 Energy control			12.5%-25%-37.5%-50%-62.5%-75%-82.5%-100%(八段容调Eight-section capacity adjustment)						
冷凝器 Condenser	型式 Type		壳管式冷凝器 Shell and tube condenser						
	水管直径 Water pipe diameter	DN	80*2	80*2	100*2	100*2	100*2	100*2	125*2
	水流量 Water flow rate	m³/h	67.6	100.8	118.4	143.1	164.3	186.4	205.9
	水压降 Water pressure drop	Kpa	58	58	58	60	60	62	62
蒸发器 Evaporator	型式 Type		干式壳管式蒸发器 Dry-type shell and tube evaporator						
	水管直径 Water pipe diameter	DN	100	100	125	150	150	200	200
	水流量 Water flow rate	m³/h	53.7	80.0	93.9	113.6	130.4	147.9	163.4
	水压降 Water pressure drop	Kpa	60	60	60	62	62	65	65
制冷剂型号 Refrigerating fluid No.			R22						
节流方式 Throttle mode			热力膨胀阀 Thermal expansion valve						
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	3700	3700	3700	3900	3900	3900	4000
	宽Width (W)	MM	1200	1200	1200	1300	1400	1400	1500
	高Height (H)	MM	1600	1750	1750	1850	1950	2000	2100
运输重量Transport weight		KG	2500	2850	3120	3680	3920	4190	4360
运行重量Operating weight		KG	3100	3410	3780	4100	4340	4645	4890

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

水冷螺杆式冷水机组 Water-cooling Screw-type Water Chilling Unit

水冷螺杆式冷水机组(双压缩机)R22
Water-cooling Screw-type Water Chilling Unit (Double Compressor) R22

型号(Model):SL-LG2-			1100	1200	1300	1350	1450	1600	1750
制冷量 Refrigerating capacity		KW	1137.2	1248	1336	1410	1492	1665	1821
		RT	323.3	354.8	379.9	400.9	424.2	473.4	517.8
		kcal/h	977992	1073280	1148960	1212600	1283120	1431900	1566060
热回收量 Heat recovery quantity		KW	341.2	374.4	400.8	423.0	447.6	499.5	546.3
输入功率 Input power		KW	211.7	224	241	258	264	298	321
额定电流 Rated current		A	320	345	369	394	427	460	497
能效值 Value of energy efficiency		COP	5.37	5.57	5.54	5.47	5.65	5.59	5.67
启动方式 Starting mode			Y-Δ启动 Starting						
能量控制 Energy control			八段容调 (12.5%-25%-37.5%-50%-62.5%-75%-82.5%-100%)						
冷凝器 Condenser	型式 Type		壳管式冷凝器 Shell and tube condenser						
	水管直径 Water pipe diameter	DN	125*2	125*2	125*2	125*2	125*2	125*2	125*2
	水流量 Water flow rate	m³/h	236.2	265.0	282.7	295.9	318.3	353.4	384.2
	水压降 Water pressure drop	Kpa	62	60	60	60	62	65	65
蒸发器 Evaporator	型式Type		干式壳管式蒸发器 Dry-type shell and tube evaporator						
	水管直径 Water pipe diameter	DN	200	200	200	200	200	200	200
	水流量 Water flow rate	m³/h	187.5	207.0	220.8	231.2	248.6	276.1	300.1
	水压降 Water pressure drop	Kpa	65	62	62	62	65	68	68
制冷剂型号 Refrigerating fluid No.			R22						
节流方式 Throttle mode			热力膨胀阀 Thermal expansion valve						
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	4000	4100	4100	4100	4500	4500	4500
	宽Width (W)	MM	1600	1500	1500	1600	1600	1600	1600
	高Height (H)	MM	2200	2100	2100	2200	2200	2200	2400
运输重量Transport weight		KG	4770	5140	5520	5720	5950	6230	6620
运行重量Operating weight		KG	5390	5810	6170	6430	6680	7010	7620

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

水冷螺杆式冷水机组(双压缩机)R22
Water-cooling Screw-type Water Chilling Unit (Double Compressor) R22

型号(Model):SL-LG2-			1850	1970	2100	2300	2650	3000
制冷量 Refrigerating capacity		KW	1922	2046	2185	2400	2760	3090
		RT	546.5	581.7	621.3	682.4	784.8	878.6
		kcal/h	1652920	1759560	1879100	2064000	2373600	2657400
热回收量 Heat recovery quantity		KW	576.6	613.8	655.5	720.0	828.0	927.0
输入功率 Input power		KW	334.6	354	375	412	474	542
额定电流 Rated current		A	658	696	734	828	932	1024
能效值 Value of energy efficiency		COP	5.74	5.78	5.83	5.83	5.82	5.70
启动方式 Starting mode			Y-Δ启动 Starting					
能量控制 Energy control			12.5%-25%-37.5%-50%-62.5%-75%-82.5%-100%(八段容调Eight-section capacity adjustment)					
冷凝器 Condenser	型式 Type		壳管式冷凝器 Shell and tube condenser					
	水管直径 Water pipe diameter	DN	150*2	150*2	150*2	150*2	200*2	200*2
	水流量 Water flow rate	m³/h	405.4	433.5	462.3	504.1	584.2	659.6
	水压降 Water pressure drop	Kpa	65	70	70	75	75	68
蒸发器 Evaporator	型式 Type		干式壳管式蒸发器 Dry-type shell and tube evaporator					
	水管直径 Water pipe diameter	DN	200	200	200	200	200*2	200*2
	水流量 Water flow rate	m³/h	316.7	338.6	361.2	393.8	456.4	515.3
	水压降 Water pressure drop	Kpa	68	75	75	80	80	65
制冷剂型号 Refrigerating fluid No.			R22					
节流方式 Throttle mode			热力膨胀阀 Thermal expansion valve					
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	4500	4100	4100	4100	4100	4250
	宽Width (W)	MM	1600	1700	1700	1700	1700	1900
	高Height (H)	MM	2400	2400	2400	2350	2350	2450
运输重量Transport weight		KG	6780	7200	7390	8150	8820	10220
运行重量Operating weight		KG	7830	8420	8740	9470	11050	13800

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

水冷螺杆式冷水机组（单压缩机）R134a冷媒
Water-Cooling Screw-Type Water Chilling Unit (Single Compressor) R134a Refrigerant

型号(Model):SL-LG1-			160	200	260	310	370	450	500	560	620	690
制冷量 Refrigerating capacity		KW	157.4	199.8	257.9	304.4	363.8	441.8	492.8	560.8	618.6	688.5
		RT	45	57	73	87	103	126	140	159	176	196
		kcal/h	135364	171828	221794	261784	312868	379948	423808	482288	531996	592110
输入功率 Input power		KW	28.4	35	44.8	52.7	62.5	74.8	83.1	94.4	103.8	115.1
额定电流 Rated current		A	47.7	58.2	76.4	88.8	105.7	129.7	143.2	161.9	180.7	200.8
最大运行电流 Maximum running current		A	64	78	102	120	142	175	195	223	245	270
最小配电功率 Minimum distribution power		KW	40	48	62	74	87	1058	114	130	142	160
启动方式 Starting mode			Y-Δ启动 Starting									
能量控制 Energy control			25%-50%-75%-100%(四段容调Four-section capacity adjustment)									
冷凝器 Condenser	型式 Type		壳管式冷凝器 Shell and tube condenser									
	水管直径 Water pipe diameter	DN	80	80	100	100	100	125	125	150	150	150
	水流量 Water flow rate	m³/h	34.7	44.0	56.8	67.0	80.1	97.3	108.5	12.5	136.2	151.6
	水压降 Water pressure drop	Kpa	55	60	60	60	62	62	65	65	65	68
蒸发器 Evaporator	型式 Type		干式壳管式蒸发器 Dry-type shell and tube evaporator									
	水管直径 Water pipe diameter	DN	80	80	100	100	100	125	125	150	150	150
	水流量 Water flow rate	m³/h	7.2	34.6	44.6	52.7	62.9	76.4	85.3	97.0	107.0	119.1
	水压降 Water pressure drop	Kpa	50	55	55	55	60	60	63	63	63	63
制冷剂型号 Refrigerating fluid No.			R134a									
节流方式 Throttle mode			热力膨胀阀 Thermal expansion valve									
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	2650	3150	3150	3150	3850	3850	3850	3850	3850	3850
	宽Width (W)	MM	1150	1200	1200	1300	1350	1350	1350	1400	1500	1500
	高Height (H)	MM	1250	1300	1300	1400	1450	1450	1500	1500	1800	1800
运输重量Transport weight		KG	1600	2080	2180	2560	2990	3850	3280	3390	3520	3610
运行重量Operating weight		KG	1800	2290	2390	2880	3320	3490	3550	3697	3880	3987

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

水冷螺杆式冷水机组（双压缩机）R134a冷媒
Water-cooling Screw-type Water Chilling Unit (Double Compressor) R134a Refrigerant

型号(Model):SL-LG2-			320	360	400	460	520	570	610	670	730	810
制冷量 Refrigerating capacity		KW	314.8	357.2	399.6	304.4	515.8	562.3	608.8	668.2	727.6	805.6
		RT	90	102	114	130	147	160	173	190	207	229
		kcal/h	270728	307192	343656	393622	443588	483578	523568	574652	625736	692816
输入功率 Input power		KW	56.8	63.4	70.0	79.8	89.6	97.5	105.4	115.2	125.0	137.3
额定电流 Rated current		A	95.4	105.9	116.4	134.6	152.8	165.2	177.6	194.5	211.4	235.4
最大运行电流 Maximum running current		A	128	142	156	180	204	222	240	262	284	317
最小配电功率 Minimum distribution power		KW	80	88	96	110	124	136	148	161	174	192
启动方式 Starting mode			Y-Δ启动 Starting									
能量控制 Energy control			12.5%-25%-37.5%-50%-62.5%-75%-82.5%-100%(八段容调Eight-section capacity adjustment)									
冷凝器 Condenser	型式 Type		壳管式冷凝器 Shell and tube condenser									
	水管直径 Water pipe diameter	DN	80*2	80*2	100*2	100*2	100*2	100*2	100*2	100*2	100*2	100*2
	水流量 Water flow rate	m³/h	69.3	78.6	88.0	100.8	113.6	123.8	134.0	147.1	160.2	177.4
	水压降 Water pressure drop	Kpa	55	60	60	60	62	62	64	64	66	66
蒸发器 Evaporator	型式 Type		干式壳管式蒸发器 Dry-type shell and tube evaporator									
	水管直径 Water pipe diameter	DN	100	100	100	125	125	150	150	150	200	200
	水流量 Water flow rate	m³/h	54.5	61.8	69.1	79.2	89.2	97.3	105.3	115.6	125.9	139.4
	水压降 Water pressure drop	Kpa	50	55	55	55	60	60	63	63	63	63
制冷剂型号 Refrigerating fluid No.			R134a									
节流方式 Throttle mode			热力膨胀阀 Thermal expansion valve									
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	3700	3700	3900	3900	3900	3900	4000	4000	4100	4100
	宽Width (W)	MM	1200	1200	1300	1300	1400	1400	1500	1600	1500	1500
	高Height (H)	MM	1750	1750	1850	1850	1950	2000	2100	2200	2100	2100
运输重量Transport weight		KG	2850	3120	3320	3680	3920	4190	4360	4770	5140	5520
运行重量Operating weight		KG	3410	3760	3840	4100	4340	4645	4890	4390	5810	6170

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

水冷螺杆式冷水机组（双压缩机）R134a冷媒
Water-cooling Screw-type Water Chilling Unit (Double Compressor) R134a Refrigerant

型号(Model):SL-LG2-			890	940	990	1060	1120	1180	1240	1310	1380
制冷量 Refrigerating capacity		KW	883.6	934.6	985.6	1053.6	1121.6	1179.4	1237.2	1307.1	1377
		RT	251	266	280	300	319	335	352	372	392
		kcal/h	759896	803756	847616	906096	964576	1014284	1063992	1124106	1184220
输入功率 Input power		KW	149.6	157.9	166.2	177.5	188.8	198.2	207.6	218.9	230.2
额定电流 Rated current		A	259.4	272.9	286.4	305.1	323.8	342.6	361.4	381.5	401.6
最大运行电流 Maximum running current		A	350	370	390	418	446	468	490	515	540
最小配电功率 Minimum distribution power		KW	210	219	228	244	260	274	284	302	322
启动方式 Starting mode			Y-Δ启动 Starting								
能量控制 Energy control			12.5%-25%-37.5%-50%-62.5%-75%-82.5%-100%(八段容调Eight-section capacity adjustment)								
冷凝器 Condenser	型式 Type		壳管式冷凝器 Shell and tube condenser								
	水管直径 Water pipe diameter	DN	125*2	125*2	125*2	125*2	125*2	125*2	125*2	125*2	125*2
	水流量 Water flow rate	m^3/h	194.5	205.8	217.0	232.0	246.9	259.7	272.4	287.8	303.2
	水压降 Water pressure drop	Kpa	66	66	68	68	38	70	70	74	74
蒸发器 Evaporator	型式 Type		干式壳管式蒸发器 Dry-type shell and tube evaporator								
	水管直径 Water pipe diameter	DN	200	200	200	200	200	200	200	200	200
	水流量 Water flow rate	m^3/h	152.9	161.7	170.5	182.3	194.0	204.0	214.0	226.0	238.2
	水压降 Water pressure drop	Kpa	64	66	66	66	68	68	70	70	70
制冷剂型号 Refrigerating fluid No.			R134a								
节流方式 Throttle mode			热力膨胀阀 Thermal expansion valve								
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	4100	4100	4500	4500	4500	4500	4500	4500	4500
	宽Width (W)	MM	1600	1600	1600	1600	1600	1600	1600	1600	1600
	高Height (H)	MM	2200	2200	2200	2200	2200	2200	2400	2400	2400
运输重量Transport weight		KG	5720	5910	5950	5980	6230	6520	6620	6780	6900
运行重量Operating weight		KG	6430	6610	6680	5710	7010	7320	7620	7830	8200

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

水冷涡旋式冷水机组
Water-cooling Vortex-type Water Chilling Unit

型号(Model):SL-WX-			65	80	100	120	140	160
制冷量 Refrigerating capacity		KW	66.7	78.2	101.4	121.8	139.2	162.4
		RT	19	22	29	35	40	46
		Kcal/h	67362	67252	87204	104748	119712	139664
热回收量 Heat recovery quantity		KW	20	23	30	37	45	49
输入功率 Input power		KW	14.2	16.8	21.4	26	31	34
压缩机 Compressor	型式 Type		全封闭涡旋式压缩机Totally-closed vortex-type compressor (R22/R407C)					
	能量调节 Energy regulation	%	25%-50%-75%-100%		33%-66%-100%		25%-50%-75%-100%	
冷凝器 Condenser	型式 Type		干式壳管式冷凝器Dry-type shell and tube condenser					
	水管直径 Water pipe diameter	DN	65	65	65	65	80	80
	水流量 Water flow rate	m^3/h	14.7	17.2	22.3	26.8	30.6	35.8
	水压降 Water pressure drop	Kpa	46	50	49	50	51	52
蒸发器 Evaporator	型式 Type		干式壳管式蒸发器Dry-type shell and tube evaporator					
	水管直径 Water pipe diameter	DN	65	65	65	65	80	80
	水流量 Water flow rate	m^3/h	11.5	13.5	17.4	20.9	23.9	27.9
	水压降 Water pressure drop	Kpa	46	50	49	50	51	52
机组外形尺寸 Boundary dimensions of unit	长Length (L)	MM	2100	2300	2400	2400	2500	2500
	宽Width (W)	MM	800	800	800	800	800	800
	高Height (H)	MM	1400	1400	1400	1400	1400	1400
运输重量Transport weight		KG	760	850	920	1000	1150	1250
运行重量Operating weight		KG	880	1000	1100	1200	1350	1500

注：

1、名义制冷工况：冷冻水进水温度12°C,冷冻水出水温度7°C,冷却水进水温度30°C,冷却水出水温度35°C;

2、电源制式：3P-380V-50Hz,允许相间电压差±2%;

3、机组可根据用户需求，增加热回收功能。机组的热回收率可达30%左右；

4、如果以上机型不能满足您的要求，我们可以另行为您设计选型；

5、由于技术改进，外形尺寸可能会有变更，故本样本外形尺寸仅供参考，订制时请索取准确安装尺寸图。

Note:

1. Nominal refrigeration: DR: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C, cooling water inlet temperature at 30°C and cooling water outlet temperature at 35°C;
2. Power supply system: 3P-380V-50HZ, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. If above unit models fail to meet your requirements, we may design additionally;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts when ordering.

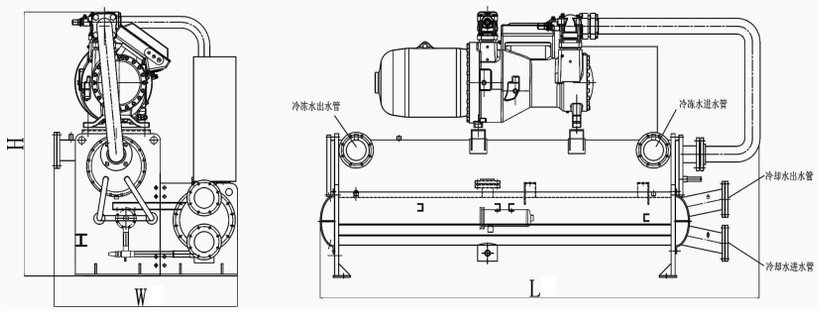
水冷螺杆式冷水机组 Water-cooling Screw-type Water Chilling Unit

机组变工况性能参数修正系数表
Table for Correction Factors of Performance Parameters for Variable Working Condition of Unit

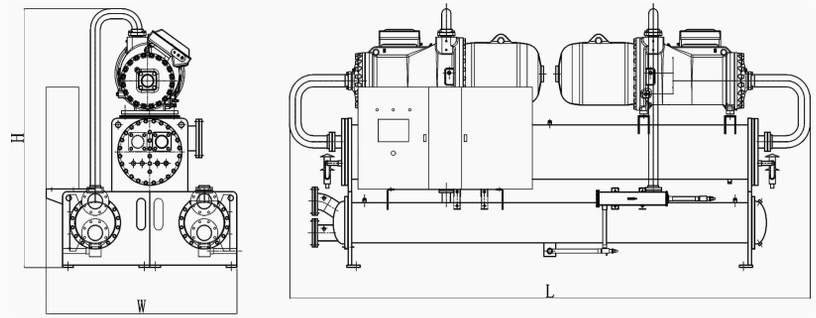
冷冻水出水温度℃ Effluent temperature of chilled water °C	冷却水进水温度 Cooling water inlet temperature (℃)											
	20		25		28		30		32		34	
	制冷量 Refrigerating capacity	输入功率 Input power	制冷量 Refrigerating capacity	输入功率 Input power	制冷量 Refrigerating capacity	输入功率 Input power	制冷量 Refrigerating capacity	输入功率 Input power	制冷量 Refrigerating capacity	输入功率 Input power	制冷量 Refrigerating capacity	输入功率 Input power
4	0.992	0.805	0.948	0.889	0.919	0.942	0.9	0.977	0.878	1.014	0.846	1.071
5	1.026	0.811	0.981	0.896	0.951	0.949	0.931	0.985	0.909	1.023	0.876	1.08
6	1.063	0.817	1.017	0.903	0.986	0.957	0.966	0.993	0.943	1.031	0.909	1.089
7	1.099	0.822	1.052	0.909	1.021	0.964	1	1	0.977	1.039	0.942	1.098
8	1.139	0.827	1.09	0.915	1.058	0.97	1.037	1.007	1.013	1.046	0.978	1.105
9	1.179	0.832	1.129	0.921	1.096	0.977	1.074	1.014	1.05	1.053	1.014	1.112
10	1.218	0.837	1.167	0.926	1.133	0.983	1.111	1.021	1.087	1.06	1.05	1.118

水冷螺杆式冷水机组示意图
Table for Correction Factors of Performance Parameters for Variable Working Condition of Unit

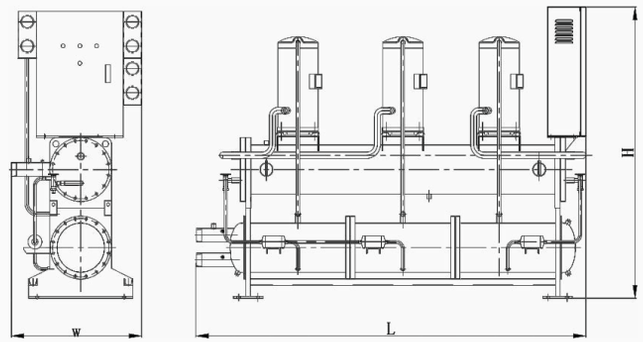
水冷螺杆式冷水机组示意图（单压缩机头）
Diagram of Water-cooling Screw-type Water Chilling Unit (Single Compressor Head)



水冷螺杆式冷水机组示意图（双压缩机头）
Diagram of Water-cooling Screw-type Water Chilling Unit (Double Compressor Head)



水冷涡旋式水机组示意图
Diagram of Water-cooling Vortex-type Water Chilling Unit



水冷螺杆满液式冷水机组
Water-cooling Screw Hydraulic Filling Water Chilling Unit

机组设计要点与特色 Key design and features of unit

■采用高效强化传热铜管，大大提高换热效率；

■蒸发器采用欧博专利设计，体积大大减小；冷凝器内置高效二次油分离器，专业设计，分油效果佳，可以保证机组良好回油；

■欧博满液式螺杆机组具体压缩机自带油分和独特的三级回油方式（高效的冷凝器内置油分，蒸发器浓缩引射回油和伯努利效应吸气自带回油）技术，通过专用设计的喷油泵加上油分离器的自动强制回油系统，配合压缩机的油位开关，彻底解决满液式螺杆机组压缩机在能调时易失油问题；

■采用吸气过热度动态追踪控制液位，使系统运转稳定，压缩机永不带液，彻底解决业界共有的液压缩问题；

■双压缩机采用并联共氟系统，综合部分负荷性能IPLV系数高；

■运行范围广。蒸发器水温-5℃至30℃，可以选用标准型号；

■采用电子膨胀阀作为冷媒流量控制方式，精确控制系统的运行工况并使之在较低的冷凝温度和较高的蒸发温度上平稳运转；

■可采用四级或无级能量调节方式，精确控制冷冻水进（出）水温度。

■采用通用PLC控制，具体极强的抗干扰能力。控制器容易采购，维修成本低；先进的控制程序，机组运行安全、稳定；

■采用触摸屏作为人机界面，全图形显示，机组运行一目了然；

■制冷剂充注量少；和干式螺杆的充注量一样少；

■ The efficient intensified heat transfer copper pipe is adopted to largely improve the heat exchange efficiency;

■ The patent design of Oubo is adopted for the evaporator, largely reducing the volume. The efficient secondary oil separator is built inside the condenser with specialized design and excellent oil separation efficiency to ensure the excellent oil return of the unit;

■ Oubo hydraulic filling screw unit has the technology of the compressor with own oil separation and unique three-level oil return mode (efficient built-in oil separation of condenser, evaporator concentration, injection and oil return, and Bernoulli's effect inspiration with oil separation). Through the specially designed fuel injection pump and the automatic forced oil return system of oil separator, combining the oil level switch, the easy oil loss of the hydraulic filling screw unit compressor will be thoroughly solved;

■The inspiration superheat degree dynamic tracking control liquid level is adopted that the system runs stably and the compressor never runs with liquid, so as to thoroughly solve the fluid compression which is common in the industry;

■The parallel fluorine-sharing system is adopted for the double compressor with high comprehensive load performance IPLV factor;

■Operating range is wide. Water temperature of evaporator is at -5°C to 30°C, and standard model can be selected;

■The electronic expansion valve can be adopted as the refrigerant flow control mode to accurately control the working conditions of the system and enable it to run stably at the lower condensation temperature and higher evaporation temperature;

■The four-level or stepless regulation mode may be adopted to accurately control the water inlet and outlet temperatures of chilled water.

■The general PLC control is used with extremely strong capacity of resisting disturbance. The controller is purchasable with low maintenance cost. With the advanced control program, the unit runs safety and stably;

■The touch screen is used as the human-computer interface with full graphic display, so that the unit operation is clear at a glance;

■The filled refrigerating fluid is less as same as that filled in the dry-type screw;

水冷螺杆满液式冷水机组（单压缩机）R22冷媒
Water-cooling Screw Hydraulic Filling Water Chilling Unit (Single Compressor) R22 Refrigerant

型号(Model):SL-LG1-			230M	280M	340M	390M	450M	550M	600M
电源 Power supply			3Φ- 380V -50Hz				3Φ- 380V -50Hz		
制冷量 Refrigerating capacity		kW	240	279	345	394	449	555	610
		kcal/h	206228	239768	296700	338668	386140	477300	524600
输入功率 Input power		kW	47.2	53.4	64.2	73.4	83.6	93	100.5
运转电流 Working current		A	81.8	92.5	111.2	127.1	144.8	161.1	174.1
启动电流 Starting current		A	171	205	205	240	278	378	425
能量调节 Energy regulation		%	100，75，50，25（启动）四段容调 100, 75, 50, 25 (start) four-section capacity adjustment						
压缩机 Compressor	型式 Type		半封闭螺杆式 Semi-closed screw type						
	机数 Quantity		1				1		
	起动方式 Starting mode		Y-Δ				Y-Δ		
	回转数 Number of revolution	r.p.m	2950				2950		
	油加热器 Oil heater	W	200	200	200	200	200	300	300
制冷剂 Refrigerating fluid	种类 Type		R22				R22		
	填充量 Amount filled	kg	61	66	85	90	95	105	115
	控制方式 Control method		电子膨胀阀Electronic expansion valve				电子膨胀阀Electronic expansion valve		
蒸发器 Evaporator	型式 Type		壳管式Shell and tube type				壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	100法兰 100 flange		125法兰 125 flange		125法兰 125 flange	150法兰 150flange	
	冷水水量 Cold water yield	m^3/h	41.2	47.9	59.3	67.7	77.2	95.4	104.9
	水头损失 Head loss	kpa	90	90	90	90	90	90	90
冷凝器 Condenser	型式 Type		壳管式Shell and tube type				壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	100法兰 100 flange		125法兰 125 flange		125法兰 125 flange	150法兰 150flange	
	冷却水量 Quantity of cooling water	m^3/h	51.6	59.9	74.2	84.7	96.5	119.3	131.2
	水头损失 Head loss	kpa	99	99	99	99	99	99	99
保护装置 Protective device			高低压开关、防冻开关、过载保护装置、线圈过热保护器、逆向保护、油位过低保护、油压差保护、断水保护等 HV and LV switches, anti-freezing switch, overload protective device, coil overheat protector, reverse protector, excessive low oil level protector, oil pressure difference protector, water-break protector, etc.						
机组重量 Weight of unit		kg	1900	1950	2050	2100	2200	2350	2500
运行重量 Operating weight		kg	2100	2250	2350	2450	2550	2650	2750

注：

1、空调工况：蒸发器进水温度12℃，蒸发器出水温度7℃，蒸发器出水温度范围4～15℃；
冷凝器进水温度30℃，冷凝器出水温度35℃，冷凝器进水温度范围19～40℃；

2、蒸发器水侧设计污垢系数0.018㎡·℃/KW；

3、冷凝器水侧设计污垢系数0.044㎡·℃/KW；

4、以上规格如有变更，恕不另行通知；

5、如有特殊要求，下订单前请提出要求规范。

Note:

1.Air conditioning conditions: evaporator water inlet temperature at 12°C, evaporator water outlet temperature at 7°C, evaporator water outlet temperature range: 4-15°C; condenser water inlet temperature at 30°C, condenser water outlet temperature at 35°C, and condenser water inlet temperature range: 19-40°C;

2. Design scaling factor at the water side of evaporator: 0.018 m2.°C/KW;

3. Design scaling factor at the water side of condenser: 0.044m2.°C/KW;

4. Specifications above will be changed without prior notice;

5. In case of special requirements, please put forward the specifications before ordering.

水冷螺杆满液式冷水机组（单压缩机）R22冷媒
Water-cooling Screw Hydraulic Filling Water Chilling Unit (Single Compressor) R22 Refrigerant

型号(Model):SL-LG1-			690M	850M	1000M	1150M	1250M
电源 Power supply			3Φ- 380V -50Hz		3Φ- 380V -50Hz		
制冷量 Refrigerating capacity		kW	686	841	1028	1184	1255
		kcal/h	589960	723260	884080	1018240	1079300
输入功率 Input power		kW	116.7	140.5	174.6	196.2	201.9
运转电流 Working current		A	202	243.3	302.4	339.8	349.7
启动电流 Starting current		A	379	488	617	684	845
能量调节 Energy regulation		%	100，75，50，25（启动）四段容调		100, 75, 50, 25 (start) four-section capacity adjustment		
压缩机 Compressor	型式 Type		半封闭螺杆式 Semi-closed screw type		半封闭螺杆式 Semi-closed screw type		
	机数 Quantity		1		1		
	起动方式 Starting mode		Y-Δ		Y-Δ		
	回转数 Number of revolution	r.p.m	2950		2950		
	油加热器 Oil heater	W	300	300	300	300	300
制冷剂 Refrigerating fluid	种类 Type		R22		R22		
	填充量 Amount filled	kg	155	165	195	215	250
	控制方式 Control method		电子膨胀阀Electronic expansion valve		电子膨胀阀Electronic expansion valve		
蒸发器 Evaporator	型式 Type		壳管式Shell and tube type		壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	150法兰 150 flange		200法兰 200flange		
	冷水水量 Cold water yield	m^3/h	118.0	144.6	176.8	203.6	215.8
	水头损失 Head loss	kpa	90	90	90	90	90
冷凝器 Condenser	型式 Type		壳管式Shell and tube type		壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	150法兰 150 flange		200法兰 200flange		
	冷却水量 Quantity of cooling water	m^3/h	147.5	180.8	221.0	254.6	269.8
	水头损失 Head loss	kpa	99	99	99	99	99
保护装置 Protective device			高低压开关、防冻开关、过载保护装置、线圈过热保护器、逆向保护、油位过低保护、油压差保护、断水保护等 HV and LV switches, anti-freezing switch, overload protective device, coil overheat protector, reverse protector, excessive low oil level protector, oil pressure difference protector, water-break protector, etc.				
机组重量 Weight of unit		kg	2950	3050	3600	3850	3950
运行重量 Operating weight		kg	3200	3350	3950	4200	4350

注：

1、空调工况：蒸发器进水温度12℃，蒸发器出水温度7℃，蒸发器出水温度范围4～15℃；
冷凝器进水温度30℃，冷凝器出水温度35℃，冷凝器进水温度范围19～40℃；

2、蒸发器水侧设计污垢系数0.018㎡·℃/KW；

3、冷凝器水侧设计污垢系数0.044㎡·℃/KW；

4、以上规格如有变更，恕不另行通知；

5、如有特殊要求，下订单前请提出要求规范。

Note:

1.Air conditioning conditions: evaporator water inlet temperature at 12°C, evaporator water outlet temperature at 7°C, evaporator water outlet temperature range: 4-15°C; condenser water inlet temperature at 30°C, condenser water outlet temperature at 35°C, and condenser water inlet temperature range: 19-40°C;

2. Design scaling factor at the water side of evaporator: 0.018 m2.°C/KW;

3. Design scaling factor at the water side of condenser: 0.044m2.°C/KW;

4. Specifications above will be changed without prior notice;

5. In case of special requirements, please put forward the specifications before ordering.

水冷螺杆满液式冷水机组（双压缩机）R22冷媒
Water-cooling Screw Hydraulic Filling Water Chilling Unit (Double Compressor) R22 Refrigerant

型号(Model):SL-LG2-			1500M	1700M	1800M	1900M	2000M
电源 Power supply			3Φ- 380V -50Hz		3Φ- 380V -50Hz		
制冷量 Refrigerating capacity		kW	1464	1683	1805	1927	2073
		kcal/h	1259040	1446950	1552300	1657220	1782780
输入功率 Input power		kW	256.3	281	300	318.1	337.7
运转电流 Working current		A	443.9	486.7	519.6	550.9	585
启动电流 Starting current		A	606	755	884	948	1017
能量调节 Energy regulation		%	100，82.5，75，62.5，50，37.5，25，12.5（八段容调 eight-section capacity adjustment）				
压缩机 Compressor	型式 Type		半封闭螺杆式 Semi-closed screw type				
	机数 Quantity		2		2		
	起动方式 Starting mode		Y-Δ		Y-Δ		
	回转数 Number of revolution	r.p.m	2950		2950		
	油加热器 Oil heater	W	300×2		300×2		
制冷剂 Refrigerating fluid	种类 Type		R22		R22		
	填充量 Amount filled	kg	275	325	350	355	365
	控制方式 Control method		电子膨胀阀Electronic expansion valve		电子膨胀阀Electronic expansion valve		
蒸发器 Evaporator	型式 Type		壳管式Shell and tube type		壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	200法兰 200 flange		250法兰 250flange		
	冷水水量 Cold water yield	m^3/h	251.8	289.3	310.4	331.4	356.5
	水头损失 Head loss	kpa	90	90	90	90	90
冷凝器 Condenser	型式 Type		壳管式Shell and tube type		壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	200法兰 200 flange		250法兰 250flange		
	冷却水量 Quantity of cooling water	m^3/h	314.8	361.7	388.1	414.3	445.7
	水头损失 Head loss	kpa	99	99	99	99	99
保护装置 Protective device			高低压开关、防冻开关、过载保护装置、线圈过热保护器、逆向保护、油位过低保护、油压差保护、断水保护等 HV and LV switches, anti-freezing switch, overload protective device, coil overheat protector, reverse protector, excessive low oil level protector, oil pressure difference protector, water-break protector, etc.				
机组重量 Weight of unit		kg	5605	5850	6050	6250	6350
运行重量 Operating weight		kg	5905	6200	6350	6550	6700

注：

1、空调工况：蒸发器进水温度12℃，蒸发器出水温度7℃，蒸发器出水温度范围4～15℃；
冷凝器进水温度30℃，冷凝器出水温度35℃，冷凝器进水温度范围19～40℃；

2、蒸发器水侧设计污垢系数0.018㎡·℃/KW；

3、冷凝器水侧设计污垢系数0.044㎡·℃/KW；

4、以上规格如有变更，恕不另行通知；

5、如有特殊要求，下订单前请提出要求规范。

Note:

1.Air conditioning conditions: evaporator water inlet temperature at 12°C, evaporator water outlet temperature at 7°C, evaporator water outlet temperature range: 4-15°C; condenser water inlet temperature at 30°C, condenser water outlet temperature at 35°C, and condenser water inlet temperature range: 19-40°C;

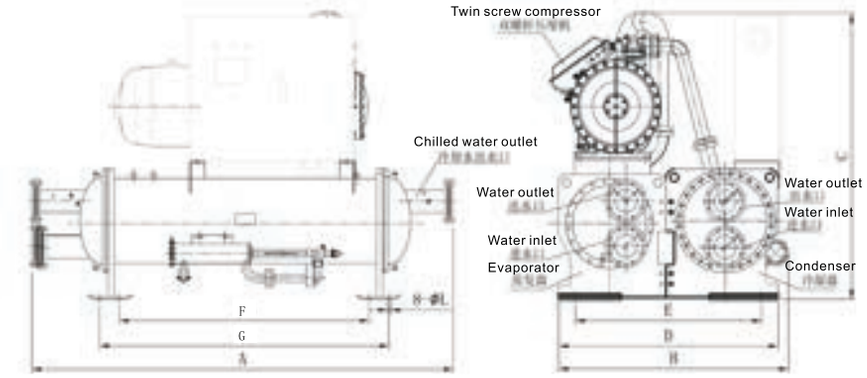
2. Design scaling factor at the water side of evaporator: 0.018 m2.°C/KW;

3. Design scaling factor at the water side of condenser: 0.044m2.°C/KW;

4. Specifications above will be changed without prior notice;

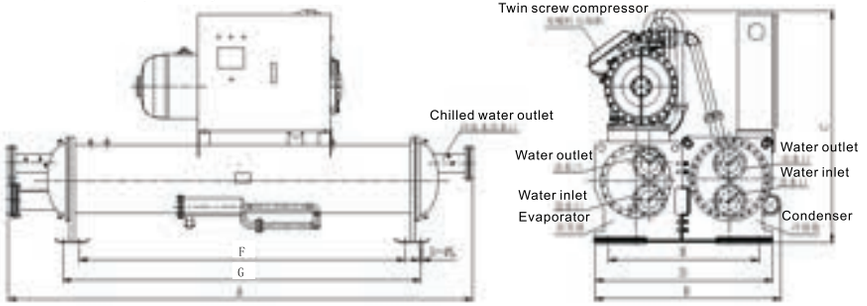
5. In case of special requirements, please put forward the specifications before ordering.

SL-LG1-满液式螺杆机组（R22）外形尺寸（mm）
Boundary Dimensions of SL-LG1- Hydraulic Filling Screw Unit (R22) (mm)



机组型号 Unit model	外型尺寸 Boundary dimensions								接管尺寸 Connecting pipe dimensions	
	A	B	C	D	E	F	G	L	蒸发器 Evaporator	冷凝器 Condenser
SL-LG1-230M	2700	1300	1602	1150	950	1523	1723	Φ24	Dn100	DN100
SL-LG1-280M	2700	1300	1602	1150	950	1523	1723	Φ24	DN100	DN100
SL-LG1-340M	2700	1415	1647	1265	1065	1523	1723	Φ24	DN125	DN125
SL-LG1-390M	2700	1415	1647	1265	1065	1523	1723	Φ24	DN125	DN125
SL-LG1-450M	2700	1440	1672	1290	1090	1523	1723	Φ24	DN125	DN125
SL-LG1-550M	2750	1485	1672	1335	1135	1523	1723	Φ24	DN150	DN150
SL-LG1-600M	2750	1560	1722	1410	1210	1523	1723	Φ24	DN150	DN150

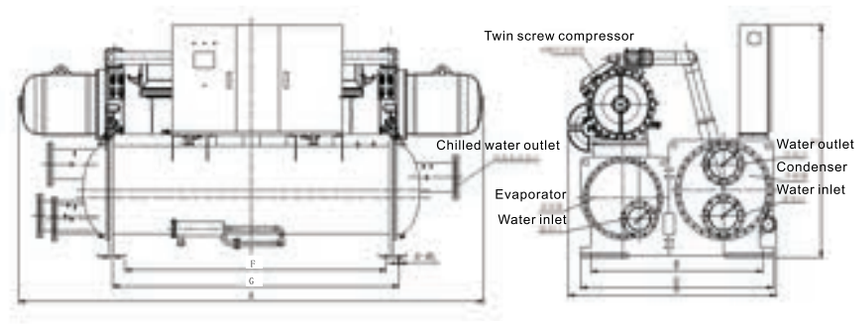
注：上表是水冷满液式冷水机组的外形尺寸，外型形式仅作参考。
Note: The above table shows the boundary dimensions of the water-cooling hydraulic filling water chilling unit,and the shape is only used for reference.



机组型号 Unit model	外型尺寸 Boundary dimensions								接管尺寸 Connecting pipe dimensions	
	A	B	C	D	E	F	G	L	蒸发器 Evaporator	冷凝器 Condenser
SL-LG1-690M	3800	1490	1722	1340	1140	2523	2723	Φ24	DN150	DN150
SL-LG1-850M	3800	1535	1722	1385	1185	2523	2723	Φ24	DN150	DN150
SL-LG1-1000M	3800	1605	1772	1455	1255	2523	2723	Φ24	DN200	DN200
SL-LG1-1150M	3800	1710	1822	1560	1360	2523	2723	Φ24	DN200	DN200
SL-LG1-1250M	3800	1710	1822	1560	1360	2523	2723	Φ24	DN200	DN200

注：上表是水冷满液式冷水机组的外形尺寸，外型形式仅作参考。
Note: The above table shows the boundary dimensions of the water-cooling hydraulic filling water chilling unit,and the shape is only used for reference.

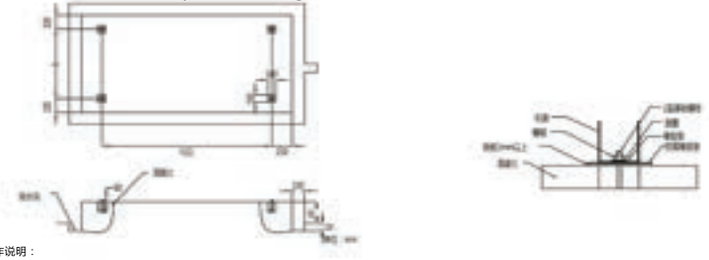
SL-LG2-满液式螺杆机组（R22）外形尺寸（mm）
Boundary Dimensions of SL-LG2- Hydraulic Filling Screw Unit (R22) (mm)



机组型号 Unit model	外型尺寸 Boundary dimensions								接管尺寸 Connecting pipe dimensions	
	A	B	C	D	E	F	G	L	蒸发器 Evaporator	冷凝器 Condenser
SL-LG2-1500M	3850	1855	1922	1705	1505	2523	2723	Φ24	DN200	DN200
SL-LG2-1700M	4450	1990	1922	1760	1560	2523	2723	Φ24	DN200	DN200
SL-LG2-1800M	4450	2040	1972	1810	1610	2523	2723	Φ24	DN250	DN250
SL-LG2-1900M	4450	2040	1972	1810	1610	2523	2723	Φ24	DN250	DN250
SL-LG2-2000M	4450	2090	1972	1860	1660	2523	2723	Φ24	DN250	DN250

注：上表是水冷满液式冷水机组的外形尺寸，外型形式仅作参考。
Note: The above table shows the boundary dimensions of the water-cooling hydraulic filling water chilling unit,and the shape is only used for reference.

满液式螺杆机组（R22）安装示意图（mm）
Diagram for Installation of Hydraulic Filling Screw Unit (R22)



基础台制作说明：
1、承载水泥基础台要大于机组的运转重量来施工，建议混凝土中放置8mm的混凝土用钢筋，间距100mm捆扎，排放上下两层。
2、在原有混凝土地板上作水泥基座时，必须先将其表面凿毛（弄粗糙），清扫干净后，给予充分水份在施工。
3、水泥基础台使用1：2：4比例的混凝土并捣实，力求坚固，并依需要规定地脚螺栓孔数量，基础台表面应粉光及水平。
4、基础台的混凝土干固后才能安装机器，并埋入合适的地脚螺栓，待预留地脚螺栓孔内混凝土干后方可定位。
5、基础台四周排水应良好，不得有积水，以免积水影响周围环境。
6、机组底座固定螺孔为⊘24,搭配M20的地脚螺栓。
7、图中E、F(G)为机组的地脚螺栓孔定位尺寸，详见机组外形图。

Manufacturing descriptions for foundation platform:
1. The cement foundation platform shall be constructed exceeding the running weight of the unit. It is recommended that the 8 mm concrete reinforcement shall be placed in the concrete and bound at the spacing of 100 mm in two layers up and down.
2. When constructing the cement base on the former concrete floor, the surface must be roughtened, and sufficient moisture is required followed by construction.
3. The cement foundation platform shall be made by 1:2:4 concrete and tamped firmly, and the surface of the foundation platform shall be polished and leveled according to the number of specified foundation bolt holes.
4. The machine shall be installed after the concrete of foundation platform is dry and the suitable foundation bolts shall be buried followed by the positioning after the concrete inside the reserved foundation bolt holes is dry.
5. The water drainage around the foundation platform shall be good without accumulated water to prevent the influence on the surrounding environment.
6. The fixed screw hole of unit base is 024 with the M20 foundation bolt.
7. Refer to the outside view of unit for the positioning dimensions of the foundation bolt hole of the unit in E and F(G) in the drawing.

水冷螺杆满液式冷水机组（单压缩机）R134a冷媒
Water-cooling Screw Hydraulic Filling Water Chilling Unit (Single Compressor) R134a Refrigerant

型号(Model):SL-LG1-			230MA	260MA	300MA	360MA	400MA
电源 Power supply			3Φ- 380V -50Hz		3Φ- 380V -50Hz		
制冷量 Refrigerating capacity		kW	222	253	287	360	390
		kcal/h	190920	217150	246820	309600	335400
输入功率 Input power		kW	36.5	41.7	47.5	58	63.4
运转电流 Working current		A	63.2	72.2	82.3	100.5	109.8
启动电流 Starting current		A	140	171	202	236	280
能量调节 Energy regulation		%	100，75，50，25（启动）四段容调		100, 75, 50, 25 (start) four-section capacity adjustment		
压缩机 Compressor	型式 Type		半封闭螺杆式 Semi-closed screw type				
	机数 Quantity		1		1		
	起动方式 Starting mode		Y-Δ		Y-Δ		
	回转数 Number of revolution	r.p.m	2950		2950		
	油加热器 Oil heater	W	200		200	300	
制冷剂 Refrigerating fluid	种类 Type		R134a		R134a		
	填充量 Amount filled	kg	65	70	78	85	90
	控制方式 Control method		电子膨胀阀Electronic expansion valve		电子膨胀阀Electronic expansion valve		
蒸发器 Evaporator	型式 Type		壳管式Shell and tube type		壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	100法兰 100 flange		125法兰 125 flange		
	冷水水量 Cold water yield	m^3/h	38.2	43.4	49.4	61.9	67.1
	水头损失 Head loss	kpa	90	90	90	90	90
冷凝器 Condenser	形式 Type		壳管式Shell and tube type		壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	100法兰 100 flange		125法兰 125 flange		
	冷却水量 Quantity of cooling water	m^3/h	47.7	54.3	61.7	77.4	83.9
	水头损失 Head loss	kpa	99	99	99	99	99
保护装置 Protective device			高低压开关、防冻开关、过载保护装置、线圈过热保护器、逆向保护、油位过低保护、油压差保护、断水保护等 HV and LV switches, anti-freezing switch, overload protective device, coil overheat protector, reverse protector, excessive low oil level protector, oil pressure difference protector, water-break protector, etc.				
机组重量 Weight of unit		kg	2250	2350	2400	2450	2500
运行重量 Operating weight		kg	2400	2500	2550	2600	2650

注：

1、空调工况：蒸发器进水温度12℃，蒸发器出水温度7℃，蒸发器出水温度范围4～15℃；

冷凝器进水温度30℃，冷凝器出水温度35℃，冷凝器进水温度范围19～40℃；

2、蒸发器水侧设计污垢系数0.018㎡·℃/KW；

3、冷凝器水侧设计污垢系数0.044㎡·℃/KW；

4、以上规格如有变更，恕不另行通知；

5、如有特殊要求，下订单前请提出要求规范。

Note:

1.Air conditioning conditions: evaporator water inlet temperature at 12°C, evaporator water outlet temperature at 7°C, evaporator water outlet temperature range: 4-15°C; condenser water inlet temperature at 30°C, condenser water outlet temperature at 35°C, and condenser water inlet temperature range: 19-40°C;

2. Design scaling factor at the water side of evaporator: 0.018 m2.°C/KW;

3. Design scaling factor at the water side of condenser: 0.044m2.°C/KW;

4. Specifications above will be changed without prior notice;

5. In case of special requirements, please put forward the specifications before ordering.

水冷螺杆满液式冷水机组（单压缩机）R134a冷媒
Water-cooling Screw Hydraulic Filling Water Chilling Unit (Single Compressor) R134a Refrigerant

型号(Model):SL-LG1-			450MA	550MA	600MA	710MA	810MA
电源 Power supply			3Φ- 380V -50Hz		3Φ- 380V -50Hz		
制冷量 Refrigerating capacity		kW	444	540	618	710	808
		kcal/h	381668	464400	531050	610600	694450
输入功率 Input power		kW	72.1	87.7	99.2	111.5	126.1
运转电流 Working current		A	124.9	151.9	171.8	193.2	218.4
启动电流 Starting current		A	330	415	479	506	650
能量调节 Energy regulation		%	100，75，50，25（启动）四段容调		100, 75, 50, 25 (start) four-section capacity adjustment		
压缩机 Compressor	型式 Type		半封闭螺杆式 Semi-closed screw type				
	机数 Quantity		1		1		
	起动方式 Starting mode		Y-Δ		Y-Δ		
	回转数 Number of revolution	r.p.m	2950		2950		
	油加热器 Oil heater	W	300		300		
制冷剂 Refrigerating fluid	种类 Type		R134a		R134a		
	填充量 Amount filled	kg	100	105	140	170	170
	控制方式 Control method		电子膨胀阀Electronic expansion valve		电子膨胀阀Electronic expansion valve		
蒸发器 Evaporator	型式 Type		壳管式Shell and tube type		壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	150法兰 150 flange		150法兰 150 flange		
	冷水水量 Cold water yield	m^3/h	76.3	92.9	106.2	122.1	138.9
	水头损失 Head loss	kpa	90	90	90	90	90
冷凝器 Condenser	形式 Type		壳管式Shell and tube type		壳管式Shell and tube type		
	水管接口 Water pipe joint	DN	150法兰 150 flange		150法兰 150 flange		
	冷却水量 Quantity of cooling water	m^3/h	95.4	116.1	132.8	152.7	173.6
	水头损失 Head loss	kpa	99	99	99	99	99
保护装置 Protective device			高低压开关、防冻开关、过载保护装置、线圈过热保护器、逆向保护、油位过低保护、油压差保护、断水保护等 HV and LV switches, anti-freezing switch, overload protective device, coil overheat protector, reverse protector, excessive low oil level protector, oil pressure difference protector, water-break protector, etc.				
机组重量 Weight of unit		kg	2600	2850	2900	3350	3400
运行重量 Operating weight		kg	2750	3050	3100	3550	3600

注：

1、空调工况：蒸发器进水温度12℃，蒸发器出水温度7℃，蒸发器出水温度范围4～15℃；

冷凝器进水温度30℃，冷凝器出水温度35℃，冷凝器进水温度范围19～40℃；

2、蒸发器水侧设计污垢系数0.018㎡·℃/KW；

3、冷凝器水侧设计污垢系数0.044㎡·℃/KW；

4、以上规格如有变更，恕不另行通知；

5、如有特殊要求，下订单前请提出要求规范。

Note:

1.Air conditioning conditions: evaporator water inlet temperature at 12°C, evaporator water outlet temperature at 7°C, evaporator water outlet temperature range: 4-15°C; condenser water inlet temperature at 30°C, condenser water outlet temperature at 35°C, and condenser water inlet temperature range: 19-40°C;

2. Design scaling factor at the water side of evaporator: 0.018 m2.°C/KW;

3. Design scaling factor at the water side of condenser: 0.044m2.°C/KW;

4. Specifications above will be changed without prior notice;

5. In case of special requirements, please put forward the specifications before ordering.

水冷螺杆满液式冷水机组（双压缩机）R134a冷媒
Water-cooling Screw Hydraulic Filling Water Chilling Unit (Double Compressor) R134a Refrigerant

型号(Model):SL-LG2-			950MA	1050MA	1250MA	1350MA	1500MA	1600MA
电源 Power supply			3Φ- 380V-50Hz		3Φ- 380V-50Hz			
制冷量 Refrigerating capacity		kW	947	1080	1235	1328	1514	1615
		kcal/h	814162	928800	1062100	1142080	1302040	1388900
输入功率 Input power		kW	158.3	175.3	198.5	210.7	244.8	252.1
运转电流 Working current		A	274.2	303.7	343.8	364.9	424	436.6
启动电流 Starting current		A	479	585	673	700	723	905
能量调节 Energy regulation		%	100 , 82.5 , 75 , 62.5 , 50 , 37.5 , 25 , 12.5 (八段容调 eight-section capacity adjustment)					
压缩机 Compressor	型式 Type		半封闭螺杆式 Semi-closed screw type					
	机数 Quantity		2					
	起动方式 Starting mode		Y-Δ					
	回转数 Number of revolution	r.p.m	2950					
	油加热器 Oil heater	W	300×2					
制冷剂 Refrigerating fluid	种类 Type		R134a					
	填充量 Amount filled	kg	205	220	265	270	280	310
	控制方式 Control method		电子膨胀阀Electronic expansion valve					
蒸发器 Evaporator	型式 Type		壳管式Shell and tube type					
	水管接口 Water pipe joint	DN	200法兰 200 flange					
	冷水水量 Cold water yield	m^3/h	162.8	185.7	212.4	228.4	260.4	277.7
	水头损失 Head loss	kpa	90	90	90	90	90	90
冷凝器 Condenser	形式 Type		壳管式Shell and tube type					
	水管接口 Water pipe joint	DN	200法兰 200 flange					
	冷却水量 Quantity of cooling water	m^3/h	203.5	232.2	265.5	285.5	325.5	347.2
	水头损失 Head loss	kpa	99	99	99	99	99	99
保护装置 Protective device			高低压开关、防冻开关、过载保护装置、线圈过热保护器、逆向保护、油位过低保护、油压差保护、断水保护等 HV and LV switches, anti-freezing switch, overload protective device, coil overheat protector, reverse protector, excessive low oil level protector, oil pressure difference protector, water-break protector, etc.					
机组重量 Weight of unit		kg	5100	5550	6000	6450	6850	7050
运行重量 Operating weight		kg	5400	5900	6350	6850	7300	7650

注：

1、空调工况：蒸发器进水温度12℃，蒸发器出水温度7℃，蒸发器出水温度范围4～15℃；
冷凝器进水温度30℃，冷凝器出水温度35℃，冷凝器进水温度范围19～40℃；

2、蒸发器水侧设计污垢系数0.018m^2·℃/KW；

3、冷凝器水侧设计污垢系数0.044m^2·℃/KW；

4、以上规格如有变更，恕不另行通知；

5、如有特殊要求，下订单前请提出要求规范。

Note:

1.Air conditioning conditions: evaporator water inlet temperature at 12°C, evaporator water outlet temperature at 7°C, evaporator water outlet temperature range: 4-15°C; condenser water inlet temperature at 30°C, condenser water outlet temperature at 35°C, and condenser water inlet temperature range: 19-40°C;

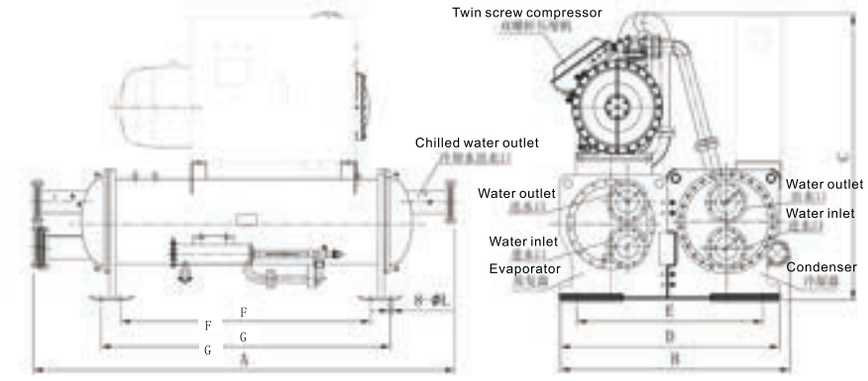
2. Design scaling factor at the water side of evaporator: 0.018 m2.°C/KW;

3. Design scaling factor at the water side of condenser: 0.044m2.°C/KW;

4. Specifications above will be changed without prior notice;

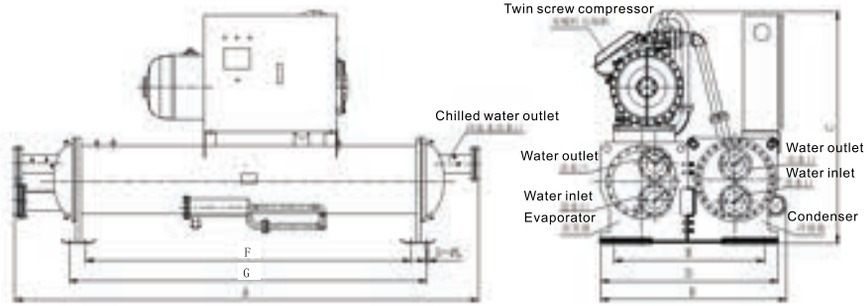
5. In case of special requirements, please put forward the specifications before ordering.

SL-LG1-满液式螺杆机组（R134a ）外形尺寸（mm）
Boundary Dimensions of SL-LG1- Hydraulic Filling Screw Unit (R134a) (mm)



机组型号 Unit model	外型尺寸 Boundary dimensions								接管尺寸 Connecting pipe dimensions	
	A	B	C	D	E	F	G	L	蒸发器 Evaporator	冷凝器 Condenser
SL-LG1-230MA	2700	1300	1602	1150	950	1523	1723	Φ24	DN100	DN100
SL-LG1-260MA	2700	1300	1602	1150	950	1523	1723	Φ24	DN100	DN100
SL-LG1-300MA	2700	1415	1647	1265	1065	1523	1723	Φ24	DN125	DN125
SL-LG1-360MA	2700	1415	1672	1290	1090	1523	1723	Φ24	DN125	DN125
SL-LG1-400MA	2700	1415	1672	1290	1090	1523	1723	Φ24	DN125	DN125
SL-LG1-450MA	2750	1510	1722	1410	1210	1523	1723	Φ24	DN150	DN150
SL-LG1-550MA	2750	1510	1722	1410	1210	1523	1723	Φ24	DN150	DN150

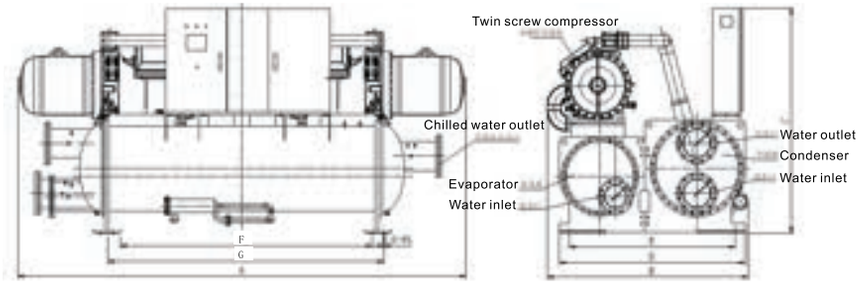
注：上表是水冷满液式冷水机组的外形尺寸，外型形式仅作参考。
Note: The above table shows the boundary dimensions of the water-cooling hydraulic filling water chilling unit,and the shape is only used for reference.



机组型号 Unit model	外型尺寸 Boundary dimensions								接管尺寸 Connecting pipe dimensions	
	A	B	C	D	E	F	G	L	蒸发器 Evaporator	冷凝器 Condenser
SL-LG1-600MA	3750	1485	1722	1385	1185	2523	2723	Φ24	DN150	DN150
SL-LG1-710MA	3750	1485	1722	1385	1185	2523	2723	Φ24	DN150	DN150
SL-LG1-810MA	3750	1605	1772	1455	1255	2523	2723	Φ24	DN150	DN150

注：上表是水冷满液式冷水机组的外形尺寸，外型形式仅作参考。
Note: The above table shows the boundary dimensions of the water-cooling hydraulic filling water chilling unit,and the shape is only used for reference.

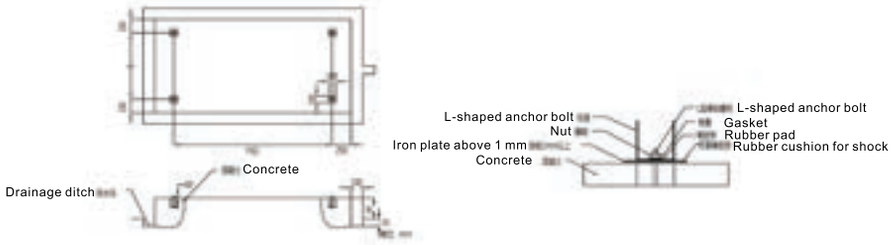
SL-LG2-满液式螺杆机组（R134a ）外形尺寸（mm）
Boundary Dimensions of SL-LG2- Hydraulic Filling Screw Unit (R134a) (mm)



机组型号 Unit model	外型尺寸 Boundary dimensions								接管尺寸 Connecting pipe dimensions	
	A	B	C	D	E	F	G	L	蒸发器 Evaporator	冷凝器 Condenser
SL-LG2-950MA	3950	1710	1822	1560	1360	2523	2723	Φ24	DN200	DN200
SL-LG2-1050MA	4450	1790	1822	1560	1360	2523	2723	Φ24	DN200	DN200
SL-LG2-1250MA	4450	1935	1922	1705	1505	2523	2723	Φ24	DN200	DN200
SL-LG2-1350MA	4450	1935	1922	1705	1505	2523	2723	Φ24	DN200	DN200
SL-LG2-1500MA	4450	1990	1922	1760	1560	2523	2723	Φ24	DN200	DN200
SL-LG2-1600MA	4450	2040	1972	1810	1610	2523	2723	Φ24	DN200	DN200

注：上表是水冷满液式冷水机组的外形尺寸，外型形式仅作参考。
Note: The above table shows the boundary dimensions of the water-cooling hydraulic filling water chilling unit,and the shape is only used for reference.

满液式螺杆机组（R134a）安装示意图（mm）
Diagram for Installation of Hydraulic Filling Screw Unit (R134a)



基础台制作说明：

1、 承载水泥基础台要大于机组的运转重量来施工，建议混凝土中放置8mm的混凝土用钢筋，间距100mm捆扎，排放上下两层。2、 在原有混凝土地板上作水泥基座时，必须先将其表面凿毛（弄粗糙），清扫干净后，给予充分水份在施工。3、 水泥基础台使用1：2：4比例的混凝土并捣实，力求坚固，并依需要规定地脚螺栓孔数量，基础台表面应粉光及水平。4、基础台的混凝土干固后才能安装机器，并埋入合适的地脚螺栓，待预留地脚螺栓孔内混凝土干后方可定位。5、基础台四周排水应良好，不得有积水，以免积水影响周围环境。6、机组底座固定螺孔为∅24,搭配M20的地脚螺栓。7、图中E、F(G)为机组的地脚螺栓孔定位尺寸，详见机组外形图。

Manufacturing descriptions for foundation platform:

1. The cement foundation platform shall be constructed exceeding the running weight of the unit. It is recommended that the 8 mm concrete reinforcement shall be placed in the concrete and bound at the spacing of 100 mm in two layers up and down.
2. When constructing the cement base on the former concrete floor, the surface must be roughtened, and sufficient moisture is required followed by construction.
3. The cement foundation platform shall be made by 1:2:4 concrete and tamped firmly, and the surface of the foundation platform shall be polished and leveled according to the number of specified foundation bolt holes.
4. The machine shall be installed after the concrete of foundation platform is dry and the suitable foundation bolts shall be buried followed by the positioning after the concrete inside the reserved foundation bolt holes is dry.
5. The water drainage around the foundation platform shall be good without accumulated water to prevent the influence on the surrounding environment.
6. The fixed screw hole of unit base is 024 with the M20 foundation bolt.
7. Refer to the outside view of unit for the positioning dimensions of the foundation bolt hole of the unit in E and F(G) in the drawing.

风冷螺杆式冷（热）水机组
Air-cooling Screw-type Cold (Hot) Water Unit

一、概述 Overview

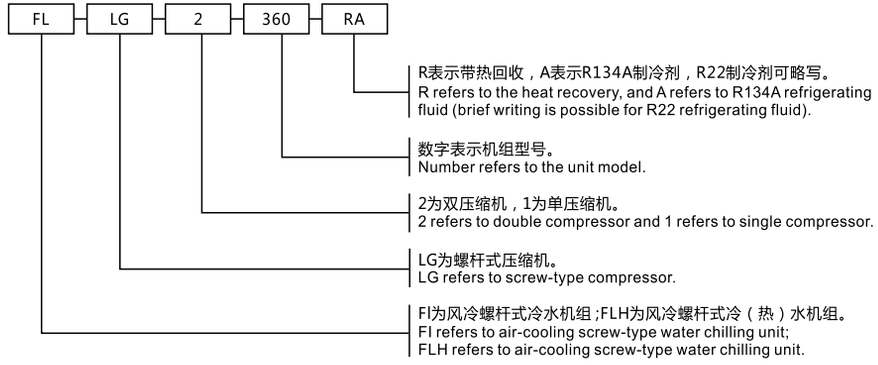
欧博FL系列风冷螺杆式冷（热）水机组是以空气作为冷（热）源，以水作为传热介质的中央空调机组。安装时将机组直接置于屋顶或室外空间，无需专用机房。冷却塔、冷却水泵、冷却水管系统，热泵机组还可代替热水锅炉取暖。广泛应用于商场、医院、宾馆、工厂及办公大楼等不同类型的建筑物。

欧博FL系列风冷螺杆式冷（热）水机组采用高能效的半封闭式双螺杆压缩机、高效翅片换热器及壳管式蒸发器，通过先进的电子膨胀阀控制技术，使机组能够在工作范围内，全面满足用户需求，工厂建有全性能试验装置，每台机组出厂前都要进行严格的检测，确保每台机组的质量和性能。

Oubo FL series of air-cooling screw-type cold (hot) water unit takes the air as the cold (hot) source and the water as the heat-transfer medium of central air conditioning units. The unit is directly placed at roof or outdoor space during installation without special machine room. The cooling tower, cooling water pump, cooling water pipe system and heat pump unit can also replace the hot water boiler for heating. The product can be widely used in different buildings, such as shopping malls, hospitals, hotels, factories and office buildings.

Oubo FL series of air-cooling screw-type cold (hot) water unit adopted the highly energy-saving semi-closed twin screw compressor, efficient fin heat exchanger and shell and tube type evaporator. The unit will comprehensively meet the user requirements within the working range by the advanced electronic expansion valve control technology. The full performance test device is built in the plant, and the strict testing is required before the delivery of each unit to ensure the quality and performance of each unit.

二、型号说明 Model descriptions



风冷螺杆式冷（热）水机组（单压缩机头）
Air-cooling Screw-type Cold (Hot) Water Unit (Single Compressor Head)

型号(Model)FL-LG1-			270	370	440	530	590	660
制冷量 Refrigerating capacity		KW	272	372	442	524	585	662
		RT	77	106	126	149	166	188
		kcal/h	233920	319920	380120	450640	503100	569320
热回收量 Heat recovery quantity		KW	82	112	133	157	176	199
制冷输入功率 Refrigerating input power		KW	83.4	113.3	133.5	158	176	199.5
制冷额定电流 Rated current for cooling		A	155	206	244	274	310	350
制热量 Heating capacity		KW	316.0	435.0	524.0	618.0	681.0	776.0
		RT	90	124	149	176	194	221
		kcal/h	271760	374100	450640	531480	585660	667360
制热输入功率 Heating input power		KW	81	109.5	129.2	151.7	170	193.2
制冷额定电流 Rated current for cooling		A	150	200	235	264	300	338
最大运行电流 Maximum running current		A	222	297	348	393	441	501
最小配电功率 Minimum distribution power		KW	108	147	174	205	229	259
主电源 Main power supply			380V/3P/50HZ					
制冷剂 Refrigerating fluid			R22/R134a					
压缩机 Compressor	形式 Type	/	半封闭双螺杆式 Semi-closed twin screw type					
	启动方式 Starting mode	/	Y-Δ启动 Start					
	能量调节 Energy regulation	%	四段容调(Four-section capacity adjustment)25%-50%-75%-100%					
水侧换热器 Water-side heat exchanger	形式 Type	/	高效水管式 Efficient water pipe type					
	制冷水流量 Refrigeration water discharge	m³/h	46.8	64.0	76.0	90.1	100.6	113.9
	制热水流量 Heating water discharge	m³/h	54.3	74.8	90.1	106.5	117.2	133.7
	水阻力 Water resistance	Kpa	52	54	56	57	59	62
	进出水管 Inlet and outlet pipes	DN	100	100	125	125	125	150
机组外型尺寸 External dimensions of unit	长Length(L)	MM	3150	4150	4680	4680	7000	7000
	宽Width(W)	MM	2260	2260	2260	2260	2260	2260
	高Height(H)	MM	2520	2520	2520	2520	2520	2520
机组重量 Weight of unit		KG	3180	3900	4440	5140	6000	6250
运行重量 Operating weight		KG	3320	4150	4640	5400	6250	6580

注：

1、制冷工况：冷冻水进水温度12°C，冷冻水出水温度7°C，环境干扰温度35°C;
制热工况：热水进水温度40°C，热水出水温度45°C.室外环境温度7°C；

2、电源制式：3P-380V-50Hz，允许电压波动±10%，允许相间电压差±2%；

3、机组可根据用户需求，增加热回收功能，机组的热回收率可达30%左右；

4、当外界环境温度低于2°C或长期停机不用时，应排尽蒸发器内积水，以防冻裂；

5、由于技术改进，外形尺寸会有变更，故本样本外形尺寸仅供参考，请索取准确安装尺寸图。

Note:

1. Refrigeration conditions: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C and environmental interference temperature at 35°C;
Heating conditions: hot water inlet temperature at 40°C, hot water outlet temperature at 45°C, and outdoor environment temperature at 7°C;
2. Power supply system: 3P-380V-50HZ, permissible voltage fluctuation of ±10%, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. When the outer environment temperature is lower than 2°C or in case of shutdown for a long time, the water accumulated inside the evaporator shall be eliminated to prevent the frost crack;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts.

风冷螺杆式冷（热）水机组（双压缩机头）
Air-cooling Screw-type Cold (Hot) Water Unit (Double Compressor Head)

型号(Model)FL-LG1-			650	750	810	880	960	1050	1100	1170	1250	1300
制冷量 Refrigerating capacity		KW	646	744	813	882	966	1045	1106	1168	1247	1283
		RT	184	212	231	251	275	297	314	332	355	365
		kcal/h	555560	369840	699180	758520	830760	898700	951160	1004480	1072420	1103380
制冷输入功率 Refrigerating input power		KW	195	226.6	246.8	267	291.4	316	334	352.1	376	386
制冷额定电流 Rated current for cooling		A	356	412	450	490	520	550	585	619	659	700
制热量 Heating capacity		KW	750.0	869.0	959.0	1047.0	1142.0	1238.0	1299.0	1361.0	1456.0	1507.0
		RT	213	247	273	298	325	352	369	387	414	428
		kcal/h	645000	747340	812740	900420	982120	1064680	1117140	1170460	1252160	1296020
制热输入功率 Heating input power		KW	188.8	219	238.7	256.4	281	304	321.7	340	364	376
制冷额定电流 Rated current for cooling		A	344	398	434	472	500	528	563	598	636	674
最大运行电流 Maximum running current		A	514	594	645	697	742	787	834	882	942	1002
最小配电功率 Minimum distribution power		KW	254	296	321	347	380	412	435	458	488	502
主电源 Main power supply			380V/3P/50Hz									
制冷剂 Refrigerating fluid			R22/R134a									
压缩机 Compressor	形式 Type	/	半封闭双螺杆式 Semi-closed twin screw type									
	启动方式 Starting mode	/	Y-Δ启动 Start									
	能量调节 Energy regulation	%	八段容调（Eight-section capacity adjustment）12.5%-25%-37.5%-50%-65.5%-75%-82.5%-100%									
水侧换热器 Water-side heat exchanger	形式 Type	/	高效壳管式									
	制冷水流量 Refrigeration water discharge	m³/h	111.0	127.8	139.7	151.6	166.0	179.6	190.1	200.7	214.3	220.5
	制热水流量 Heating water discharge	m³/h	128.9	149.3	164.8	179.9	196.2	212.7	223.2	233.9	250.2	259.0
	水阻力 Water resistance	Kpa	62	63	65	66	71	73	75	77	77	78
	进出水管 Inlet and outlet pipes	DN	150			200						
机组外型尺寸 External dimensions of unit	长Length(L)	MM	7000	8350	9250	9250	9250	9480	11820	11820	11820	11820
	宽Width(W)	MM	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
	高Height(H)	MM	2520	2520	2520	2520	2520	2520	2520	2520	2520	2520
机组重量 Weight of unit		KG	7400	8000	8300	8500	9400	10500	11000	11600	12000	12800
运行重量 Operating weight		KG	7750	8300	8660	8900	9900	11000	11500	12200	12700	13500

注：

1、制冷工况：冷冻水进水温度12°C，冷冻水出水温度7°C，环境干扰温度35°C;
制热工况：热水进水温度40°C，热水出水温度45°C.室外环境温度7°C；

2、电源制式：3P-380V-50Hz，允许电压波动±10%，允许相间电压差±2%；

3、机组可根据用户需求，增加热回收功能，机组的热回收率可达30%左右；

4、当外界环境温度低于2°C或长期停机不用时，应排尽蒸发器内积水，以防冻裂；

5、由于技术改进，外形尺寸会有变更，故本样本外形尺寸仅供参考，请索取准确安装尺寸图。

Note:

1. Refrigeration conditions: chilled water inlet temperature at 12°C, chilled water outlet temperature at 7°C and environmental interference temperature at 35°C;
Heating conditions: hot water inlet temperature at 40°C, hot water outlet temperature at 45°C, and outdoor environment temperature at 7°C;
2. Power supply system: 3P-380V-50HZ, permissible voltage fluctuation of ±10%, and allowable voltage difference between phases of ±2%;
3. The heat recovery function can be added for the unit as required by the user. The heat recovery rate of the unit may reach 30% approximately;
4. When the outer environment temperature is lower than 2°C or in case of shutdown for a long time, the water accumulated inside the evaporator shall be eliminated to prevent the frost crack;
5. The boundary dimensions may be changed for the technical improvement. Therefore, the boundary dimensions of this sample are only used for reference. Please contact us for accurate installation size charts.

磁悬浮变频离心式冷水机组
Magnetic Suspension Variable Frequency Centrifugal Water Chilling Unit

机组简介 Introduction to unit

欧博磁悬浮变频离心式冷水机组具有零摩擦、50%的节能率、30年的超长使用寿命、2A启动电流、智能无噪音等特点，具有卓越的运行效率和可靠型。压缩机独立运行，保证整个冷水机组的安全性和稳定性，任意一台机组故障，均不影响系统正常运行；共用氟系统设计，多个压缩机共用制冷回路，可实现同步变频，效率更高，占地更小，特别适用于多机头大冷量、高能耗的场所，如商业公共建筑、数据中心、酒店、学校、医院、印刷厂、工厂车间、电厂、公道交通、车站等。

Oubo magnetic suspension variable frequency centrifugal water chilling unit is featured by zero fiction, 50% of energy saving rate, super long service life of 30 years, 2A starting current, intelligence and no noise, and has the outstanding operation efficiency and reliability. The compressor runs independently to ensure the safety and stability of the whole water chilling unit. The fault of any unit shall not influence the normal operation of the system. With the shared fluorine system design, multiple compressors use the refrigeration loop to realize the synchronous frequency conversion with higher efficiency and small occupied land. The product is particularly suitable for the places with multiple heads, large cooling capacity and high energy consumption, such as commercial public buildings, data centers, hotels, schools, hospitals, printing plants, factory workshops, power plants, public transportation and stations.

型号说明 Model descriptions

HJ — CM — A — 400 — L — V — T

- T：特殊机型缺省为标准机型
  T：special model default to standard models
- V：变频启动
  V：variable frequency starting
- L：380~460V/50Hz
- 400：名义制冷量（单位RT ）
  400：nominal refrigerating capacity (unit: RT)
- A：单机 B：双机
  A: single machine B: dual machine
- CM：磁悬浮变频离心式冷水机组代号
  CM：code of magnetic suspension variable frequency centrifugal water chilling unit
- HJ：浩金欧博空调制造有限公司
  HJ：Haojin Oubo Air Conditioning Manufacturing Co., Ltd.

机组性能参数表
Table of Performance Parameters of Unit

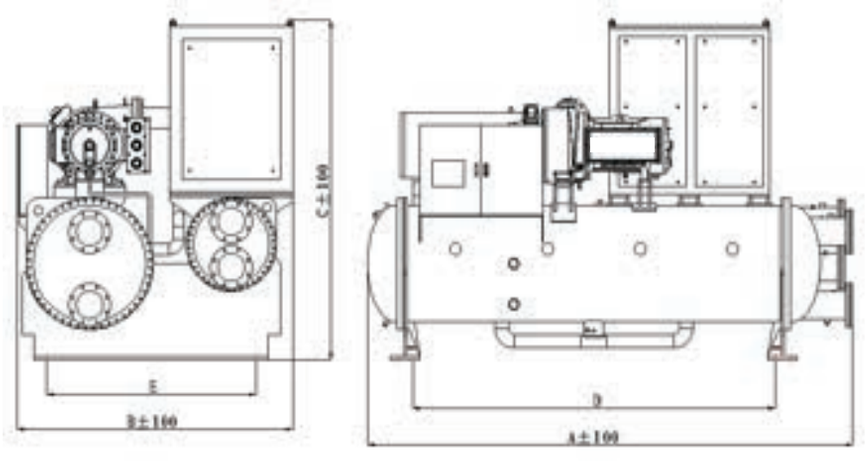
机型 Model HJCM-		A400	A450	A500	B800	B900	B1000
制冷量 Refrigerating capacity	kW	1406	1582	1758	2813	3165	3516
输入功率 Input power	kW	210	245	278	420	490	556
能效等级 Energy efficiency grade		1级	1级	1级	1级	1级	1级
IPLV	kW/kW	11.58	11.39	11.17	11.58	11.39	11.17
满载效率COP Full load efficiency COP	kW/kW	6.70	6.46	6.32	6.70	6.46	6.32
	kW/RT	0.53	0.54	0.56	0.53	0.54	0.56
冷凝器 Condenser							
水流量 Water flow rate	m^3/h	302	340	378	605	680	756
水压降 Water pressure drop	kPa	78	50	60	65	80	85
进出水管接口 Connector of water inlet and discharging tubes	DN	200	250	250	300	300	300
蒸发器 Evaporator							
水流量 Water flow rate	m^3/h	242	272	302	484	544	605
水压降 Water pressure drop	kPa	52	82	90	50	65	70
进出水管接口 Connector of water inlet and discharging tubes	DN	200	200	250	300	300	300
外型尺寸 Boundary dimensions							
A（长length）	mm	4000	4570	4570	5500	5500	5500
B（宽width）	mm	2250	2400	2400	2550	2550	2550
C（高height）	mm	2600	2600	2600	2650	2650	2650
安装尺寸 Installation dimensions							
D	mm	2944	3688	3688	4340	4340	4340
E	mm	1700	1800	1800	2050	2050	2050
运输重量 Transport weight	kg	6000	7000	7500	11500	12500	13000
运转重量 Operation weight	kg	7000	8000	8500	13000	14000	14500
冷媒充填量 Amount filled of refrigerant	kg	360	400	450	700	800	900

注：
①运行工况（GB/T 18430.1-2007）蒸发器：出水温度7℃，水流量：0.172 m^3/（h*kw）
冷凝器：进水温度30℃，水流量：0.215 m^3/（h*kw）
②冷凝器、蒸发器接管均为法兰连接
③适用冷媒：R134a
④适用电压等级：3φ-380～460V-50Hz
⑤机组水侧标准承压1.0MPa
⑥单位换算：1RT（美制冷吨）=3.517kW

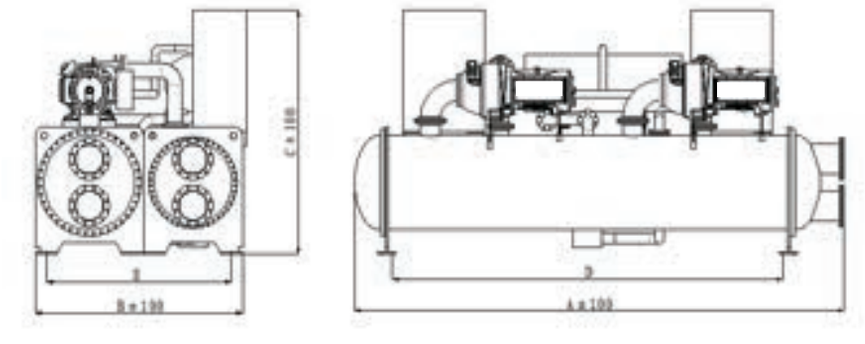
Note:
① Working conditions (GB/T 18430.1-2007): evaporator: effluent humidity at 7°C, and water flow of 0.172 m3/(h*kw)
Condenser: water inlet temperature at 30°C and water-carrying capacity of 0.215 m3/(h*kw)
② The connecting pipes of condenser and evaporator are connected by flanges
③ Applicable refrigerant: R134a
④ Applicable voltage grade: 3Φ-380~460V-50Hz
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW

机组外形示意图
Diagram of Unit Shape

磁悬浮变频冷水机组（单机）
Magnetic suspension variable frequency water chilling unit (single unit)



磁悬浮变频冷水机组（双机）
Magnetic suspension variable frequency water chilling unit (single unit)



注：由于设计优化，机组外形可能会有更新，以实际订单为准
Note: The shape of unit may be updated and shall be subject to the actual orders for the design optimization

电气参数表
Table for Electrical Parameters

型号 Model		A400	A450	B800	B900
功率（kW） Power (kW)		210	245	420	490
电压（V） Voltage (V)		380	380	380	380
最大运行电流（A） Maximum running current (A)		570	570	2*570	2*570
变频启动电流（A） Variable frequency starting curren		230	230	230	230
配线 Wiring	相线 Phase wire	3*BXR-300	3*BXR-300	6*BXR-300	6*BXR-300
	零线、地线 Null line and ground wire	2*BXR-150	2*BXR-150	2*BXR-300	2*BXR-300

注：由于设计优化，机组外形可能会有更新，以实际订单为准
Note: The shape of unit may be updated and shall be subject to the actual orders for the design optimization

每个压缩机配线示意：
Diagram for Wiring of Each Compressor:

离心式水冷冷水(热泵)机组
Centrifugal Water-cooling Cold Water (Heat Pump) Unit

机组设计要点与特色
Diagram for Wiring of Each Compressor:

1、使用R134a冷媒，R134a是HFC工质，为国际公认环保冷媒。
2、R134a为正压冷媒，无需排气装置，机房通风设计简单。
3、使用汉钟双级离心式压缩机。
4、使用高效降膜式（喷淋式）蒸发器。
5、机组内置油冷却器，以冷媒冷却，无需维修。
6、使用独立的回油系统（引射泵回油），任何负荷情况下均保证及时回油。
7、油泵内建于机组压缩机油槽中，故油泵无泄漏之虞。
8、机组采用固定孔口板节流装置，无活动部件，在变负荷和变工况下可及时调整冷媒流量，无滞后现象，确保机组运行稳定。
9、机组专用微电脑控制系统使用中文画面，清楚显示各项运行数据，操作极为方便。

1. The R134a refrigerant is used and is HFC working medium and the internationally recognized environment-friendly refrigerant.
2. R134a is the positive pressure refrigerant without the air exhaust device, and the ventilation design of the machine room is simple.
3. The Hanbell two-stage centrifugal compressor is used.
4. The efficient falling film type (spray type) evaporator is used.
5. The oil cooler is built inside the unit with cooling by refrigerant without maintenance.
6. The independent oil return system (injection of pump oil return) is used, to ensure the timely oil return under load.
7. The oil pump is built inside the oil groove of the unit compressor, and there is no worry about the leakage of oil pump.
8. The fixed hole oralia throttle device is adopted for the unit without active parts. The refrigerant flow can be adjusted under variable load and variable working condition in time without delay to ensure the stable operation of unit.
9. The Chinese interface is used in the special microcomputer control system of the unit to clearly display all running data with easy operation.

型号说明 Model descriptions

HJOU — C — A — 500 — L — Y — T

T：特殊机型　H：100%热回收　M：50%热回收缺省为标准机型
T: special model H :100% heat recovery M :50% heat recovery default is the standard model

Y：星三角启动　S：软启动　V：变频启动　D：直接启动　R：电抗启动
Y: star delta start S: soft start V: variable frequency starting D: direct starting R: reactance starting

L：380~460V/50Hz　M：6000V/50Hz　H：10000V /50Hz；

500：名义制冷量（单位RT ）
500: nominal refrigerating capacity (unit: RT)

A: 单机 B: 双机
A: single machine B: dual machine

C: 水冷冷水机组 H: 水源热泵机组
C: water-cooling water chilling unit H: water source heat pump unit

HJOU：浩金欧博空调制造有限公司
HJOU: Haojin Oubo Air Conditioning Manufacturing Co., Ltd.

冷水机组性能参数表（单机）
Table for Technical Parameters of Water Chilling Unit (Single Unit)

机型（Model）HJOBC-		500	550	600	650	700
制冷量 Refrigerating capacity	kW	1760	1965	2130	2324	2497
输入功率 Input power	kW	288	320	348	381	406
满载效率COP Full load efficiency COP	kW/kW	6.11	6.14	6.12	6.1	6.15
	kW/RT	0.58	0.57	0.57	0.58	0.57
冷凝器 Condenser						
水流量 Water flow rate	m^3/h	352	393	426	465	499
水压降 Water pressure drop	kPa	66	66	76	76	76
进出水管接口 Connector of water inlet and discharging tubes	DN	250	250	250	250	250
蒸发器 Evaporator						
水流量 Water flow rate	m^3/h	303	338	366	400	429
水压降 Water pressure drop	kPa	60	60	72	72	72
进出水管接口 Connector of water inlet and discharging tubes	DN	250	250	250	250	250
外型尺寸 Boundary dimensions						
A(长length)	mm	3920	3920	4120	4120	4120
B(宽length)	mm	2320	2320	2380	2380	2380
C(高height)	mm	2450	2450	2500	2500	2500
安装尺寸 Installation dimensions						
D	mm	2944	2944	3144	3144	3144
E	mm	1800	1800	1800	1800	1800
运输重量 Transport weight	kg	9100	9600	10100	10600	11200
运转重量 Operation weight	kg	10050	10550	11100	11700	12350
冷媒充填量 Amount filled of refrigerant	kg	450	495	540	585	630

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。

Note:
① Working conditions
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C;
condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.
When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

冷水机组性能参数表（单机）
Table for Technical Parameters of Water Chilling Unit (Single Unit)

机型（Model）HJOBC-		800	900	1000	1100
制冷量 Refrigerating capacity	kW	2858	3224	3575	3953
输入功率 Input power	kW	467	526	586	647
满载效率COP Full load efficiency COP	kW/kW	6.12	6.13	6.1	6.11
	kW/RT	0.57	0.57	0.58	0.58
冷凝器 Condenser					
水流量 Water flow rate	m^3/h	572	645	716	791
水压降 Water pressure drop	kPa	95	95	95	98
进出水管接口 Connector of water inlet and discharging tubes	DN	300	300	300	350
蒸发器 Evaporator					
水流量 Water flow rate	m^3/h	492	555	615	680
水压降 Water pressure drop	kPa	90	90	90	95
进出水管接口 Connector of water inlet and discharging tubes	DN	300	300	300	350
外型尺寸 Boundary dimensions					
A (长length)	mm	4570	4570	4570	4780
B (宽width)	mm	2550	2550	2550	2800
C (高height)	mm	2900	2900	2900	2950
安装尺寸 Installation dimensions					
D	mm	3384	3384	3384	3384
E	mm	2000	2000	2000	2300
运输重量 Transport weight	kg	11800	12500	13200	14500
运转重量 Operation weight	kg	13100	14000	14800	16350
冷媒充填量 Amount filled of refrigerant	kg	720	810	900	990

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。

Note:
① Working conditions:
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C; condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

冷水机组性能参数表（单机）
Table for Technical Parameters of Water Chilling Unit (Single Unit)

机型（Model）HJOBC-		1200	1300	1400	1500
制冷量 Refrigerating capacity	kW	4323	4665	4925	5274
输入功率 Input power	kW	704	761	805	863
满载效率COP Full load efficiency COP	kW /kW	6.14	6.13	6.12	6.11
	kW /RT	0.57	0.57	0.57	0.58
冷凝器 Condenser					
水流量 Water flow rate	m^3/h	865	933	986	1056
水压降 Water pressure drop	kPa	98	98	98	98
进出水管接口 Connector of water inlet and discharging tubes	DN	350	350	350	350
蒸发器 Evaporator					
水流量 Water flow rate	m^3/h	743	802	847	907
水压降 Water pressure drop	kPa	95	95	95	95
进出水管接口 Connector of water inlet and discharging tubes	DN	350	350	350	350
外型尺寸 Boundary dimensions					
A (长length)	mm	4780	4780	4780	4780
B (宽width)	mm	2800	2800	2800	2800
C (高height)	mm	2950	2950	2950	2950
安装尺寸 Installation dimensions					
D	mm	3384	3384	3384	3384
E	mm	2300	2300	2300	2300
运输重量 Transport weight	kg	15500	16500	18000	19500
运转重量 Operation weight	kg	17500	18600	20000	21500
冷媒充填量 Amount filled of refrigerant	kg	1080	1170	1260	1350

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。

Note:
① Working conditions:
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C; condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

冷水机组性能参数表（双机）
Table for Technical Parameters of Water Chilling Unit (Double Unit)

机型（Model）HJOBC-		1600	1700	1800	1900	2000
制冷量 Refrigerating capacity	kW	5716	6082	6448	6799	7150
输入功率 Input power	kW	932	992	1054	1110	1168
满载效率COP Full load efficiency COP	kW/kW	6.13	6.13	6.12	6.13	6.12
	kW/RT	0.57	0.57	0.57	0.57	0.57
冷凝器 Condenser						
水流量 Water flow rate	m^3/h	1143	1217	1290	1360	1431
水压降 Water pressure drop	kPa	95	95	95	95	105
进出水管接口 Connector of water inlet and discharging tubes	DN	400	400	400	450	450
蒸发器 Evaporator						
水流量 Water flow rate	m^3/h	983	1046	1109	1169	1230
水压降 Water pressure drop	kPa	90	90	90	90	95
进出水管接口 Connector of water inlet and discharging tubes	DN	400	400	400	450	450
外型尺寸 Boundary dimensions						
A (长length)	mm	8300	8300	8300	8500	8500
B (宽width)	mm	3600	3650	3650	3650	3650
C (高height)	mm	2900	2900	2900	2950	2950
安装尺寸 Installation dimensions						
D	mm	6678	6678	6678	6678	6678
E	mm	2600	2600	2600	2600	2600
运输重量 Transport weight	kg	23600	24300	25000	25700	26400
运转重量 Operation weight	kg	26500	27100	28000	28800	29600
冷媒充填量 Amount filled of refrigerant	kg	1440	1530	1620	1710	1800

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。
Note:
① Working conditions:
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C; condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

冷水机组性能参数表（双机）
Table for Technical Parameters of Water Chilling Unit (Double Unit)

机型（Model）HJOBC-		2100	2200	2300	2400	2500
制冷量 Refrigerating capacity	kW	7528	7905	8276	8645	8988
输入功率 Input power	kW	1230	1292	1350	1410	1467
满载效率COP Full load efficiency COP	kW/kW	6.12	6.12	6.13	6.13	6.13
	kW/RT	0.57	0.57	0.57	0.57	0.57
冷凝器 Condenser						
水流量 Water flow rate	m^3/h	1506	1582	1656	1729	1798
水压降 Water pressure drop	kPa	105	105	105	105	105
进出水管接口 Connector of water inlet and discharging tubes	DN	450	450	450	450	500
蒸发器 Evaporator						
水流量 Water flow rate	m^3/h	1295	1360	1423	1487	1546
水压降 Water pressure drop	kPa	95	95	95	95	95
进出水管接口 Connector of water inlet and discharging tubes	DN	450	450	450	450	500
外型尺寸 Boundary dimensions						
A (长length)	mm	8950	8950	8950	8950	9000
B (宽width)	mm	3680	3680	3680	3680	3680
C (高height)	mm	2980	2980	2980	2980	3000
安装尺寸 Installation dimensions						
D	mm	7278	7278	7278	7278	7278
E	mm	2600	2600	2600	2600	2600
运输重量 Transport weight	kg	27700	29000	30000	31000	32000
运转重量 Operation weight	kg	31150	32700	33850	35000	36100
冷媒充填量 Amount filled of refrigerant	kg	1890	1980	2070	2160	2250

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。
Note:
① Working conditions:
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C; condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

冷水机组性能参数表（双机）
Table for Technical Parameters of Water Chilling Unit (Double Unit)

机型（Model）HJOBC-		2600	2700	2800	2900	3000
制冷量 Refrigerating capacity	kW	9330	9590	9850	10199	10548
输入功率 Input power	kW	1525	1567	1610	1668	1726
满载效率COP Full load efficiency COP	kW/kW	6.12	6.12	6.12	6.11	6.11
	kW/RT	0.57	0.57	0.57	0.58	0.58
冷凝器 Condenser						
水流量 Water flow rate	m^3/h	1867	1919	1971	2041	2111
水压降 Water pressure drop	kPa	105	105	105	105	105
进出水管接口 Connector of water inlet and discharging tubes	DN	500	500	500	500	500
蒸发器 Evaporator						
水流量 Water flow rate	m^3/h	1605	1649	1694	1754	1814
水压降 Water pressure drop	kPa	95	95	95	95	95
进出水管接口 Connector of water inlet and discharging tubes	DN	500	500	500	500	500
外型尺寸 Boundary dimensions						
A (长length)	mm	9000	9000	9000	9000	9000
B (宽width)	mm	3680	3700	3700	3700	3700
C (高height)	mm	3000	3000	3000	3000	3000
安装尺寸 Installation dimensions						
D	mm	7278	7278	7278	7278	7278
E	mm	2600	2600	2600	2600	2600
运输重量 Transport weight	kg	33000	34500	36000	37500	39000
运转重量 Operation weight	kg	37200	38600	40000	41500	43000
冷媒充填量 Amount filled of refrigerant	kg	2340	2430	2520	2610	2700

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。
Note:
① Working conditions:
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C; condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

变频冷水机组性能参数表
Table for Technical Parameters of Variable Frequency Water Chilling Unit

机型（Model）HJOBC-		500	550	600	650
制冷量 Refrigerating capacity	kW	1760	1965	2130	2324
输入功率 Input power	kW	300	333	362	396
满载效率COP Full load efficiency COP	kW/kW	5.87	5.9	5.88	5.87
	kW/RT	0.6	0.6	0.6	0.6
冷凝器 Condenser					
水流量 Water flow rate	m^3/h	354	395	429	468
水压降 Water pressure drop	kPa	66	66	76	76
进出水管接口 Connector of water inlet and discharging tubes	DN	250	250	250	250
蒸发器 Evaporator					
水流量 Water flow rate	m^3/h	303	338	366	400
水压降 Water pressure drop	kPa	60	60	72	72
进出水管接口 Connector of water inlet and discharging tubes	DN	250	250	250	250
外型尺寸 Boundary dimensions					
A (长length)	mm	3920	3920	4120	4120
B (宽width)	mm	2320	2320	2380	2380
C (高height)	mm	2450	2450	2500	2500
安装尺寸 Installation dimensions					
D	mm	2944	2944	3144	3144
E	mm	1800	1800	1800	1800
运输重量 Transport weight	kg	9100	9600	10100	10600
运转重量 Operation weight	kg	10050	10550	11100	11700
冷媒充填量 Amount filled of refrigerant	kg	450	495	540	585

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。
Note:
① Working conditions:
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C; condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

冷水机组性能参数表（双机）
Table for Technical Parameters of Water Chilling Unit (Double Unit)

机型（Model）HJOBC-		700	800	900	1000
制冷量 Refrigerating capacity	kW	2497	2858	3224	3575
输入功率 Input power	kW	422	486	547	609
满载效率COP Full load efficiency COP	kW/kW	5.92	5.88	5.89	5.87
	kW/RT	0.59	0.6	0.6	0.6
冷凝器 Condenser					
水流量 Water flow rate	m^3/h	502	575	649	720
水压降 Water pressure drop	kPa	76	95	95	95
进出水管接口 Connector of water inlet and discharging tubes	DN	250	300	300	300
蒸发器 Evaporator					
水流量 Water flow rate	m^3/h	429	492	555	615
水压降 Water pressure drop	kPa	72	90	90	90
进出水管接口 Connector of water inlet and discharging tubes	DN	250	300	300	300
外型尺寸 Boundary dimensions					
A (长length)	mm	4120	4570	4570	4570
B (宽width)	mm	2380	2550	2550	2550
C (高height)	mm	2500	2900	2900	2900
安装尺寸 Installation dimensions					
D	mm	3144	3384	3384	3384
E	mm	1800	2000	2000	2000
运输重量 Transport weight	kg	11200	11800	12500	13200
运转重量 Operation weight	kg	12350	13100	14000	14800
冷媒充填量 Amount filled of refrigerant	kg	630	720	810	900

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。
Note:
① Working conditions:
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C; condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

变频冷水机组性能参数表
Table for Technical Parameters of Variable Frequency Water Chilling Unit

机型（Model）HJOBC-		1100	1200	1300	1400	1500
制冷量 Refrigerating capacity	kW	3953	4323	4665	4925	5274
输入功率 Input power	kW	673	732	791	837	898
满载效率COP Full load efficiency COP	kW/kW	5.87	5.91	5.9	5.88	5.88
	kW/RT	0.6	0.6	0.6	0.6	0.6
冷凝器 Condenser						
水流量 Water flow rate	m^3/h	796	869	938	991	1062
水压降 Water pressure drop	kPa	98	98	98	98	98
进出水管接口 Connector of water inlet and discharging tubes	DN	350	350	350	350	350
蒸发器 Evaporator						
水流量 Water flow rate	m^3/h	680	743	802	847	907
水压降 Water pressure drop	kPa	95	95	95	95	95
进出水管接口 Connector of water inlet and discharging tubes	DN	350	350	350	350	350
外型尺寸 Boundary dimensions						
A (长length)	mm	4780	4780	4780	4780	4780
B (宽width)	mm	2800	2800	2800	2800	2800
C (高height)	mm	2950	2950	2950	2950	2950
安装尺寸 Installation dimensions						
D	mm	3384	3384	3384	3384	3384
E	mm	2300	2300	2300	2300	2300
运输重量 Transport weight	kg	14500	15500	16500	18000	19500
运转重量 Operation weight	kg	16350	17500	18600	20000	21500
冷媒充填量 Amount filled of refrigerant	kg	990	1080	1170	1260	1350

注：
①运行工况:
蒸发器：进水温度12℃，出水温度7℃; 冷凝器：进水温度30℃，出水温度35℃。
当客户机组运行工况变化时，请参照变工况曲线图。
②冷凝器、蒸发器接管均为法兰连接。
③适用冷媒：R134a。
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz；高电压：3φ-6KV-50Hz，3φ-10KV-50Hz。
⑤机组水侧标准承压1.0MPa。
⑥单位换算：1RT（美制冷吨）=3.517kW。
Note:
① Working conditions:
Evaporator: water inlet temperature at 12°C and water outlet temperature at 7°C; condenser: water inlet temperature at 30°C and water outlet temperature at 35°C.When the unit operation conditions of the customer are changed, refer to the curve chart of variable working condition.
② The connecting pipes of condenser and evaporator are connected by flanges.
③ Applicable refrigerant: R134a.
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz.
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa.
⑥ Unit conversion: 1RT (American system ton of refrigeration)=3.517 kW.

热泵机组性能参数表
Table for Technical Parameters of Heat Pump Unit

机型（Model）HJOBC-					600	700	800
制冷量 Refrigerating capacity	制冷量 Refrigerating capacity		kw		2110	2462	2813
			RT		600	700	800
	功率 Power		kw		296	344	393
	性能系数 Coefficient of performance (COP)		kw/kw		7.13	7.16	7.16
制热工况 Heating condition	制热量 Heating capacity		kw		1758	2110	2462
			RT		500	600	700
	功率 Power		kw		312	374	436
	性能系数 Coefficient of performance (COP)		kw/kw		5.63	5.64	5.65
蒸发器 Evaporator	制冷 Refrigeration	进出水温 Water inlet and outlet temperature	℃				
		水流量 Water flow rate	m^3/h		363	423	484
		水压降 Water pressure drop	kPa		75	75	90
	制热 Heating	进出水温 Water inlet and outlet temperature	℃				
		水流量 Water flow rate	m^3/h		217	254	290
		水压降 Water pressure drop	kPa		50	50	70
	进出水管接口 Connector of water inlet and discharging tubes		DN		250	250	250
冷凝器 Condenser	制冷 Refrigeration	进出水温 Water inlet and outlet temperature	℃				
		水流量 Water flow rate	m^3/h		217	254	290
		水压降 Water pressure drop	kPa		50	50	70
	制热 Heating	进出水温 Water inlet and outlet temperature	℃				
		水流量 Water flow rate	m^3/h		363	423	484
		水压降 Water pressure drop	kPa		75	75	90
	进出水管接口 Connector of water inlet and discharging tubes		DN		250	250	250
机组尺寸 Dimensions of unit	外型尺寸 Boundary dimensions	长Length (A)	mm		4120	4570	4570
		宽Width (B)	mm		2480	2650	2650
		高Height (C)	mm		2500	2900	2900
	定位尺寸 Positioning dimensions	D	mm		3144	3384	3384
		E	mm		1800	2000	2000
重量 Reset	机组重量 Weight of unit	机组净重 Net weight of unit	kg		10100	11200	11800
		运转重量 Operation weight	kg		11100	12350	13100
	冷媒充填量 Amount filled of refrigerant		kg		540	630	720

说明：
按照GB/T 19409-2013 水源热泵机组地下水式工况：
①运行工况：制冷工况：冷冻水出水温度7℃；冷却水（地下水）进水温度18℃；
制热工况：热水出水温度45℃；冷冻水（地下水）进水温度15℃。
②冷凝器、蒸发器接管均为法兰连接
③适用冷媒：R134a
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz（600-900机型）
高电压：3φ-6KV-50Hz，3φ-10KV-50Hz
⑤机组水侧标准承压1.0MPa

Descriptions:
According to the underground water working conditions of water source heat pump unit (GB/T 19409-2013):
① Working conditions
Refrigeration conditions: chilled water outlet temperature at 7°C; cooling water (underground water) inlet temperature at 18°C;
Heating conditions: hot water outlet temperature at 45°C; chilled water (underground water) inlet temperature at 15°C.
② The connecting pipes of condenser and evaporator are connected by flanges
③ Applicable refrigerant: R134a
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; (600-900 model)
high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa

变频冷水机组性能参数表
Table for Technical Parameters of Variable Frequency Water Chilling Unit

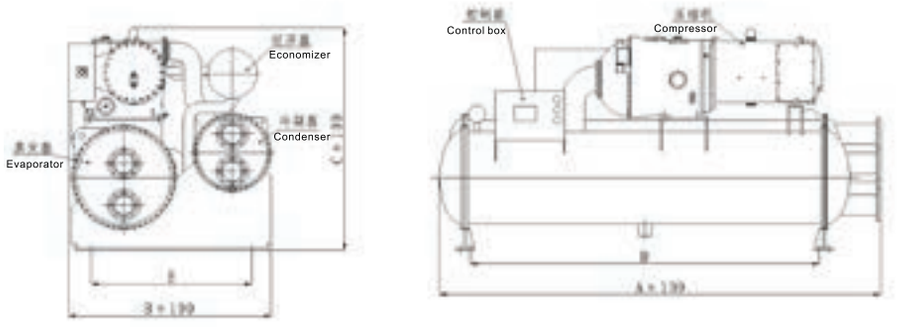
机型（Model）HJOBC-				900	1000	1100	1200
制冷量 Refrigerating capacity	制冷量 Refrigerating capacity	kw		3165	3516	3868	4220
		RT		900	1000	1100	1200
	功率 Power	kw		443	492	540	590
	性能系数 Coefficient of performance (COP)	kw/kw		7.14	7.15	7.16	7.15
制热工况 Heating condition	制热量 Heating capacity	kw		2813	3165	3516	3868
		RT		800	900	1000	1100
	功率 Power	kw		498	560	622	684
	性能系数 Coefficient of performance (COP)	kw/kw		5.65	5.65	5.65	5.65
蒸发器 Evaporator	制冷 Refrigeration	进出水温	℃				
		水流量	m^3/h	544	605	665	726
		水压降	kPa	90	90	95	95
	制热 Heating	进出水温	℃				
		水流量	m^3/h	326	362	398	435
		水压降	kPa	70	70	70	70
	进出水管接口 Connector of water inlet and discharging tubes		DN	300	300	300	350
冷凝器 Condenser	制冷 Refrigeration	进出水温	℃				
		水流量	m^3/h	326	362	398	435
		水压降	kPa	70	70	70	70
	制热 Heating	进出水温	℃				
		水流量	m^3/h	544	605	665	726
		水压降	kPa	90	90	95	95
	进出水管接口 Connector of water inlet and discharging tubes		DN	300	300	300	350
机组尺寸 Dimensions of unit	外型尺寸 Boundary dimensions	长(A)	mm	4570	4570	4780	4780
		宽(B)	mm	2650	2650	2900	2900
		高(C)	mm	2900	2900	2950	2950
	定位尺寸 Positioning dimensions	D	mm	3384	3384	3384	3384
		E	mm	2000	2000	2300	2300
重量 Reset	机组重量 Weight of unit	机组净重 Net weight of unit	kg	12500	13200	14500	15500
		运转重量 Operation weight	kg	14000	14800	16350	17500
	冷媒充填量 Amount filled of refrigerant		kg	810	900	990	1080

说明：
按照GB/T 19409-2013 水源热泵机组地下水式工况：
①运行工况：制冷工况：冷冻水出水温度7℃；冷却水（地下水）进水温度18℃；
制热工况：热水出水温度45℃；冷冻水（地下水）进水温度15℃。
②冷凝器、蒸发器接管均为法兰连接
③适用冷媒：R134a
④适用电压等级：低电压：3φ-380V-50Hz，3φ-460V-50Hz（600-900机型）
高电压：3φ-6KV-50Hz，3φ-10KV-50Hz
⑤机组水侧标准承压1.0MPa

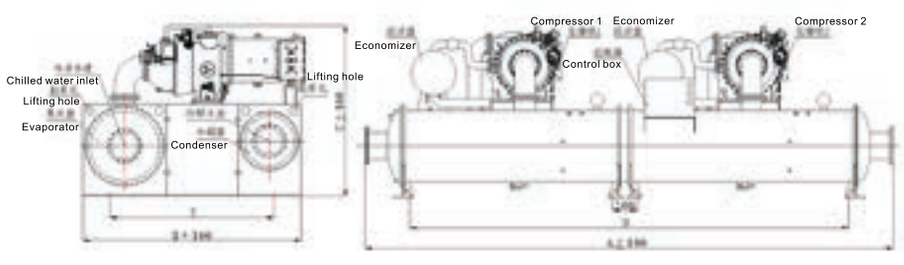
Descriptions:
According to the underground water working conditions of water source heat pump unit (GB/T 19409-2013):
① Working conditions
Refrigeration conditions: chilled water outlet temperature at 7°C; cooling water (underground water) inlet temperature at 18°C;
Heating conditions: hot water outlet temperature at 45°C; chilled water (underground water) inlet temperature at 15°C.
② The connecting pipes of condenser and evaporator are connected by flanges
③ Applicable refrigerant: R134a
④ Applicable voltage grade: low voltage: 3φ-380V-50Hz, 3φ-460V-50Hz; (600-900 model)
high voltage: 3φ-6KV-50Hz, 3φ-10KV-50Hz
⑤ Standard pressure bearing at the water side of unit: 1.0 MPa

外形示意图 Outline Diagram

冷水机组（单机）Water chilling unit (single unit)

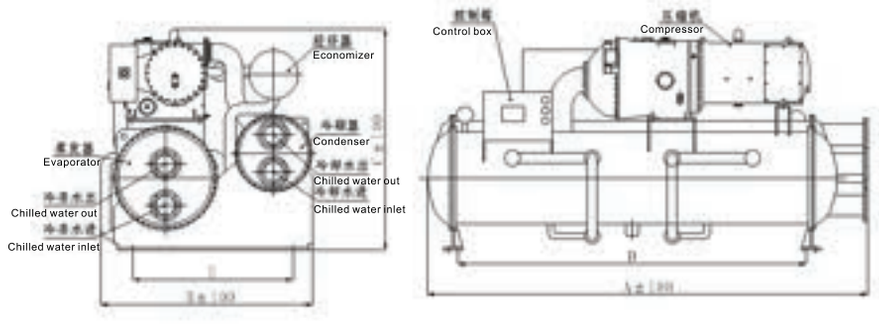


冷水机组（双机）Water chilling unit (double unit)

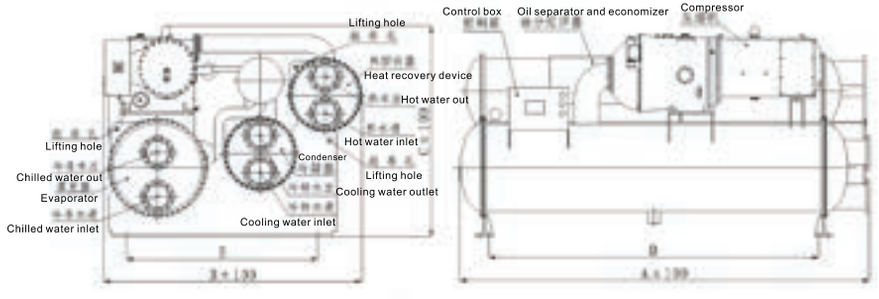


外形示意图 Outline Diagram

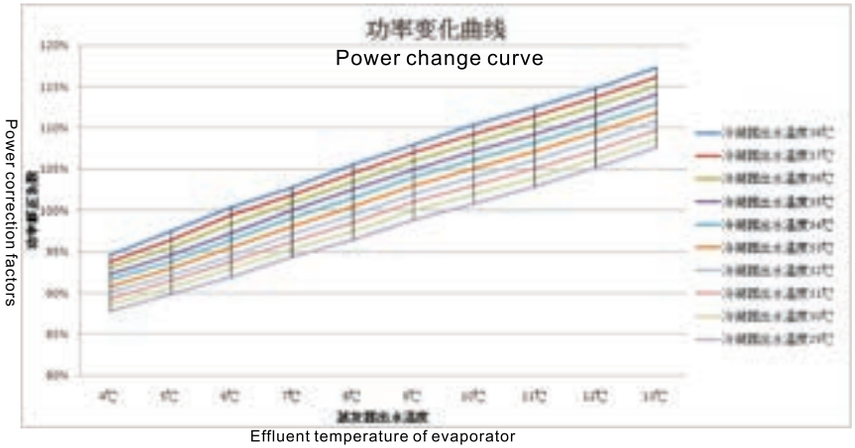
热泵机组Heat pump unit

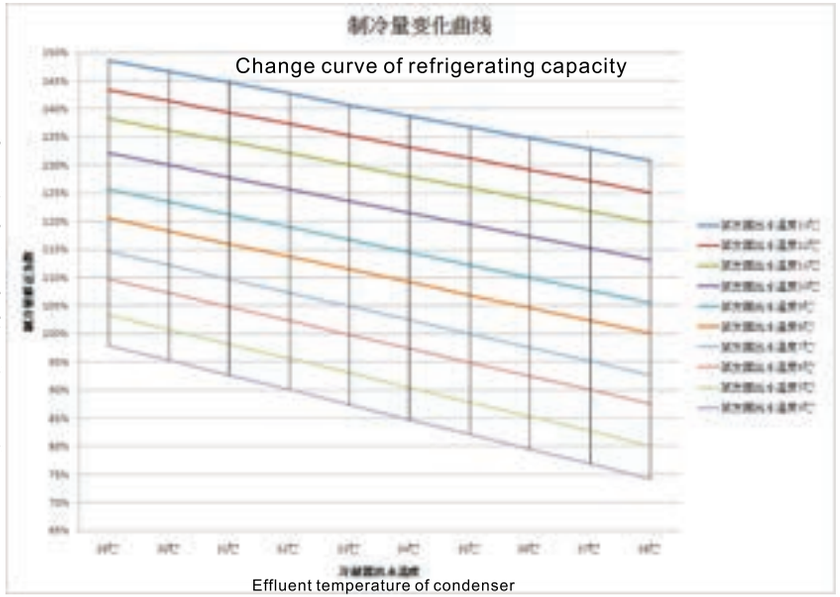


热回收机组Heat recovery unit



机组变工况曲线图
Curve Chart of Variable Working Condition of Unit





机组正常运行温度：蒸发器出水：4℃ - 13℃ ; 冷凝器出水：29℃ - 38℃。
Normal operating temperature of unit: evaporator effluent: 4°C- 13°C; condenser effluent: 29°C-38°C.

产品外观
Product Appearance

冷水机组（单机）
Water chilling unit (single unit)

高压动力柜
High pressure power cabinet

热泵机组
Heat pump unit

低压动力柜
Low-voltage power cabinet

冷水机组（双机）
Water chilling unit (double unit)

离心式水冷冷水(热泵)机组
Centrifugal Water-cooling Cold Water (Heat Pump) Unit