

华利中央空调 缔造洁净环境 创造美好生活



DC VF TYPE MEDICAL CLEANING AND PURIFIED AIR CONDITIONER UNIT
直流变频医用洁净/净化空调机组



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金华利国际集团有限公司
HUALI GROUP CO., LIMITED

温湿度独立控制系统 Temperature & Humidity Independent Control System
全新风恒温恒湿系统 Temperature & Humidity Independent Control System
冷凝热回收自取新风系统 Condenser Heat Recovery Fresh Air System



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深圳市金华利制冷设备有限公司成立于2008年，隶属于香港金华利国际集团有限公司旗下全资子公司，是一家专注于洁净中央空调研发、生产、销售和服务于一体的国家高新技术企业。

专业从事冷冻冷藏设备（不要机房的节能一体式空调、洁净中央空调，冷水机，冷凝机组等）的研制、生产、销售。华利公司专业的技术设计，提供制冷产品个性化定制研发设计、生产制造等全系列服务。

金华利集团多年来深耕于医疗净化领域，针对目前新型冠状病毒肺炎疫情防控对医疗卫生系统的提升需求，“医院洁净手术室集成系统”方案的可靠性、先进性和节能效果，可为医院提供更好的绿色解决方案，医院空调系统节能方案和产品方案正服务于遍布全国的数千家医院。

金华利洁净中央空调凭借先进的技术性能、可靠的产品质量和及时周到的售后服务，赢得了广大用户的真诚信赖和高度认可，在医院、医药、食品、电子、化工、塑胶、酒店、房地产等行业和场所得到了普遍应用，同时出口到欧洲美洲、大洋洲、非洲、亚洲的多个国家和地区，服务于全球微电子、生物制药、汽车制造、洁净手术室、香港旧机场地铁、元朗地铁、新界地铁等国际重要场所得到广泛应用。在全国一线城市有代理商和售后服务队伍。

Shenzhen Jinhuali Refrigeration Plant Co., Ltd. was established in 2008, as the wholly-owned subsidiary of HK Huali Group Co., Ltd. It is a high-tech enterprise focusing on R&D, production, sales and service of purified central air conditioners.

Specializing in the development, production and sales of refrigeration equipment (energy-saving All-in-one air conditioner, purified central air conditioner, water chillers, condensing units etc.) . Huali Group with professional technical design provides a full range of services including customized R&D, design, and manufacturing of refrigeration products.

Huali Group has been deeply involved in the field of medical purification for many years. In response to the current new Corona-virus pneumonia epidemic prevention and control requirements for the improvement of the medical and health system, Huali Group' s reliable, advanced and energy-saving solution of "Hospital clean operating room integrated system" is widely used for hospital air conditioning systems and are serving thousands of hospitals all over the country.

With advanced technical performance, reliable product quality and timely and thoughtful after-sales service, Huali Group' s purified central air conditioners have won the sincere trust and high recognition of clients in hospitals, medicine, food, electronics, chemicals, plastics, hotels, real estate etc, also widely used in industries and places, and exported to many countries and regions in Europe, America, Oceania, Africa, and Asia, serving global microelectronics, biopharmaceuticals, automobile manufacturing, clean operating rooms, Hong Kong old airport subway, Yuen Long subway, New Territories subway and other internationally important places. Huali Group with agents and after-sales service teams in first-tier cities across the country.

CERTIFICATE



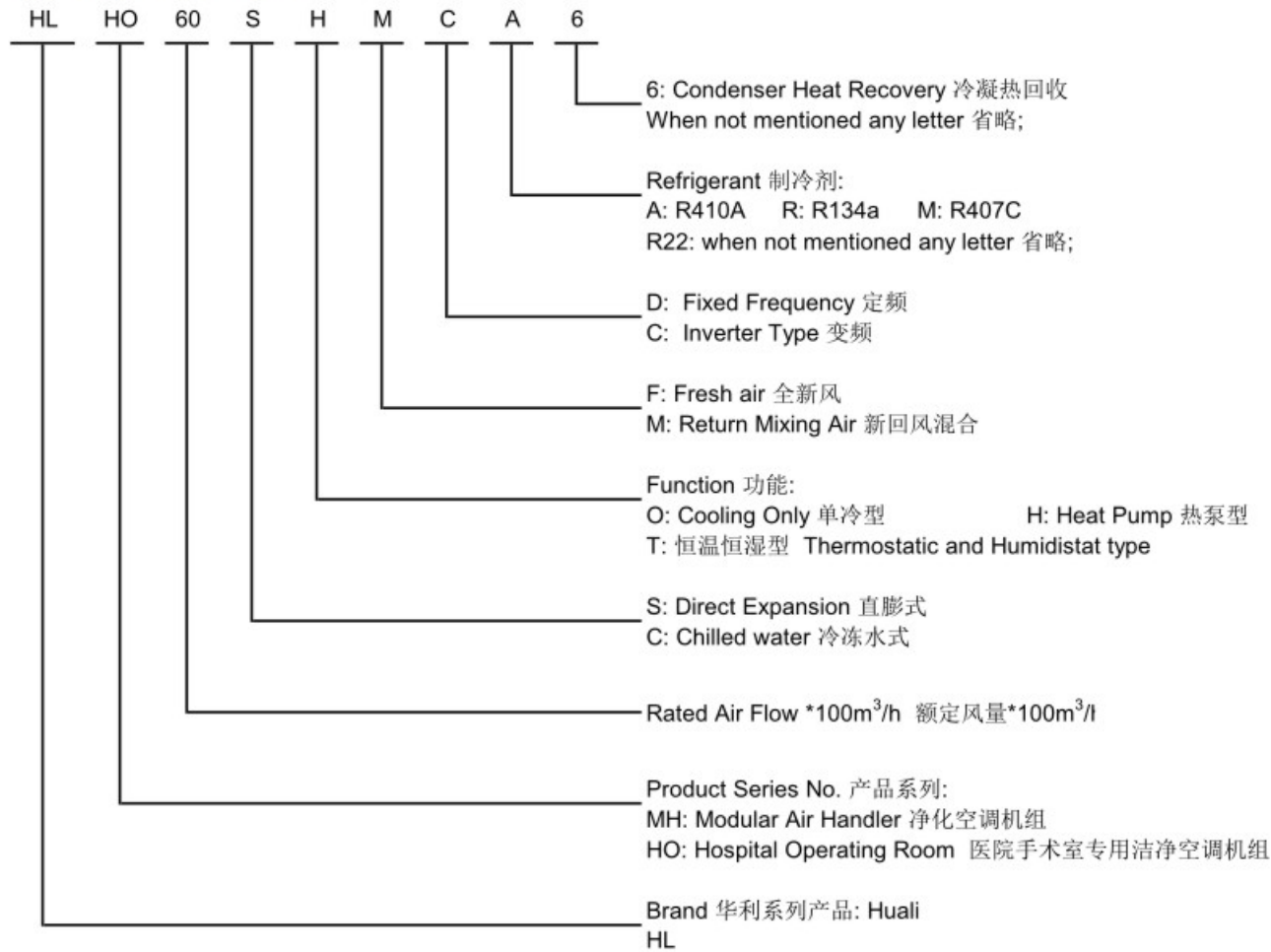
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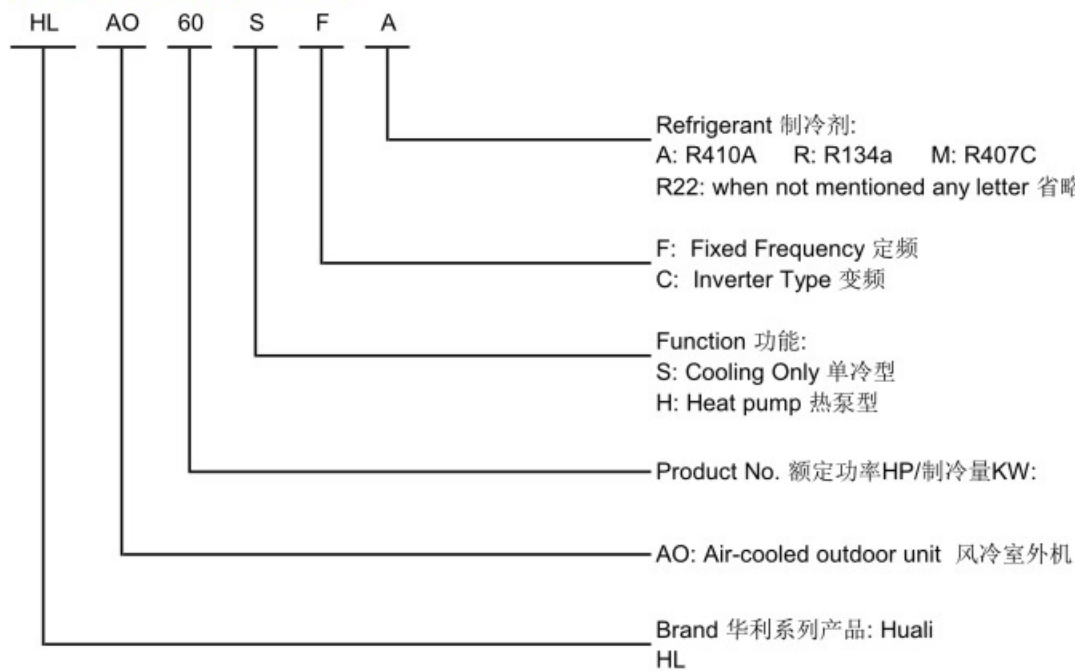
Model Expression: Medical Air Conditioning Unit

型号命名: 医用空调机组

Indoor Unit 室内机命名规则



Outdoor Unit 室外机命名规则



◎直流变频医用净化空调机组产品特点

Product Features of DC Inverter Medical Purifying Air Conditioning Unit

系统简化, 应用便捷

Simplified system and convenient application

传统冷水空调系统需要配置冷水主机、冷却塔、水泵、管路系统、各类阀门等。需要专业的运营维护人员, 并伴随大量的维护保养工作, 管理成本高、难度大, 故障率高。华利直流变频医用净化空调机组, 系统简单、灵活, 内外机只需通过冷媒管道的连接, 无传统冷水系统的冷却塔、冷水主机、冷冻水泵等部件, 大大简化现场的安装, 调试工作, 而且节省宝贵的土地资源; 用户后期的维护、保养工作大大减少, 系统可靠性更高。

Traditional chilled water air conditioning systems need to be equipped with chillers, cooling towers, water pumps, piping systems, various valves etc. It requires professional operation and maintenance personnel, and is accompanied by a large amount of maintenance work which cost, difficulty and the failure rate are higher.



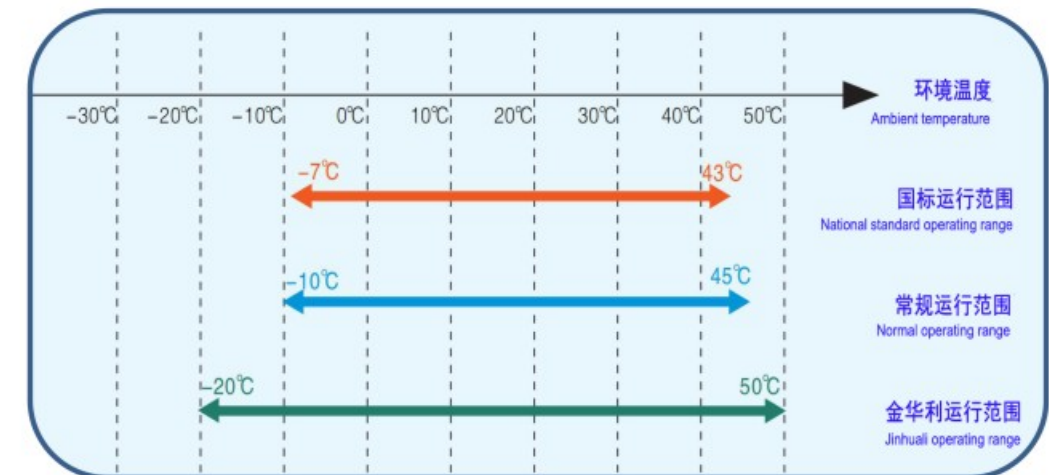
运行范围广, 适应性强

Wide range of operation and strong adaptability

机组出厂前均经过CNAS实验室严格的全气候模拟工况测试。机组可在-20℃~50℃范围内运行, 满足全国各地全年运行需求。

机组自带热源, 冬季运行无需锅炉或蒸汽设备等热源, 节能环保。

Before leaving the factory, the units have passed the strict full-climate simulation test of the CNAS laboratory. The unit can operate within the ambient temperature range of -20℃ to 50℃, meeting the annual operating needs of all parts of the country. The unit has its own heat source, no boiler or steam equipment and other heat sources are needed for operation in winter, which is energy-saving and environmentally friendly.



◎直流变频医用净化空调机组-冷凝热回收自取新风机组

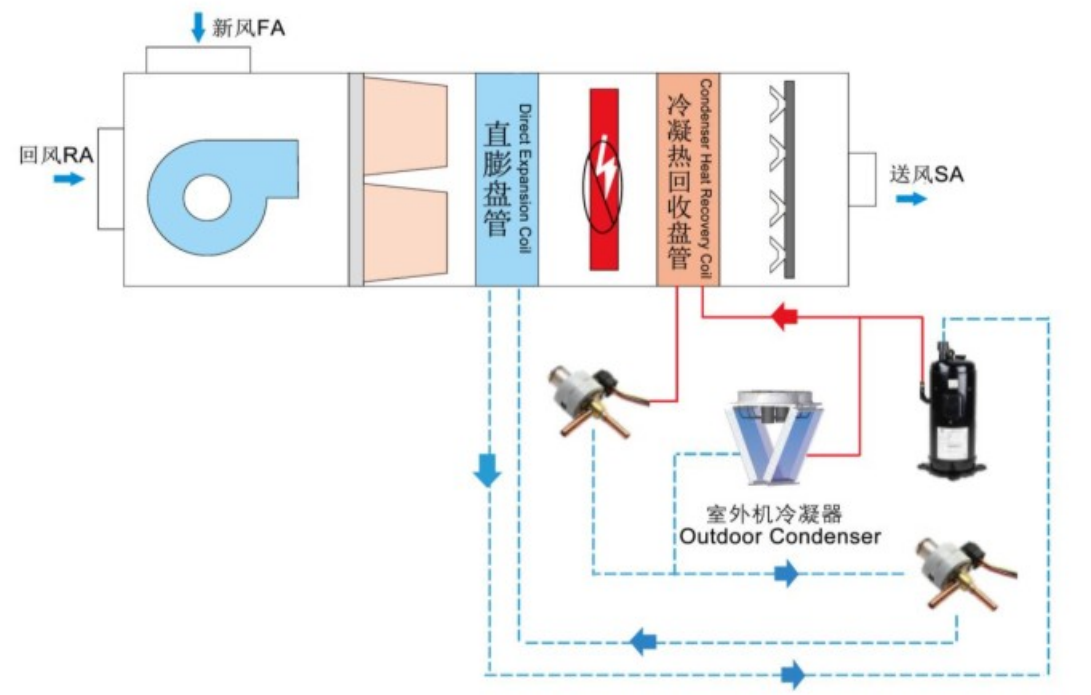
DC Inverter Medical Purification Air Conditioning Unit - Condenser Heat Recovery Fresh Air Unit

传统自取新风空调系统通过降温除湿后，通过电加热升温后加湿送风，存在极大的冷热抵消能耗损失。金华利创新冷凝热回收技术，通过制冷剂精准分配，将冷凝废热回收，作为再热热源，替代电加热。无需额外增加能耗投入，节能效果显著，同时减少“热岛效应”。

Traditional self-taken fresh air air conditioning system after cooling and dehumidification, later heated by electric heating and then humidified and supplied. There is a great deal of cold and heat to offset energy loss.

Jinhuali's innovative condensation heat recovery technology uses precise refrigerant distribution to recover condensation waste heat as a reheat source instead of electric heating.

There is no need to increase energy consumption input, the energy saving effect is significant, and the "heat island effect" is reduced at the same time.



※适用范围 Application



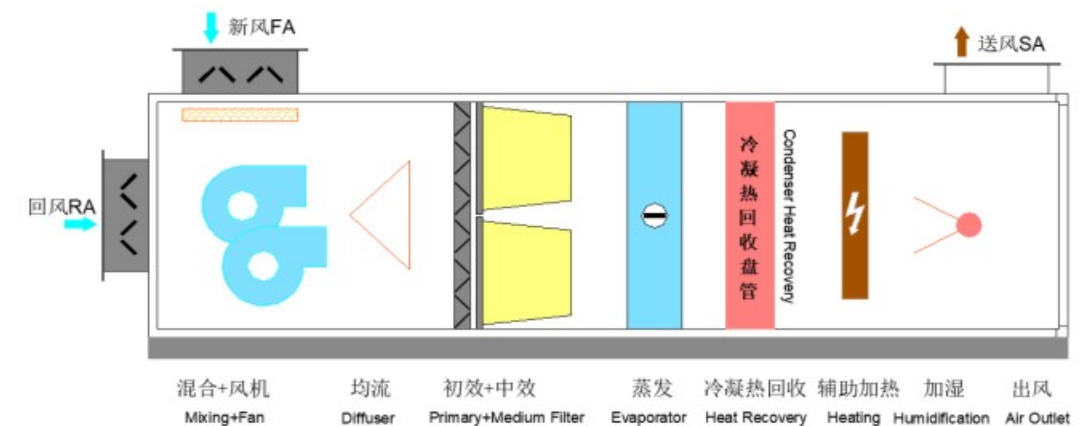
洁净手术室 Clean Operating Room 洁净辅房 Clean Auxiliary Room 中心供应室 Central Supply Room 重症监护室 Intensive Care Unit

◎冷凝热回收自取新风机组性能参数 Condenser Heat Recovery Fresh Air Unit

型号 Model	室内机 Indoor Unit	MH***-SHMCA6	26	33	42	52	65	85	105
	室外机 Outdoor Unit	HLAO-	06SCA	10SCA	12SCA	16SCA	20SCA	24SCA	10SCA+20SCA
整机性能 Unit Performance	额定风量 Rated Air Flow	m ³ /h	2600	3300	4200	5200	6500	8500	10500
	新风量 Fresh Air Flow	m ³ /h	650	825	1050	1300	1300	2000	2000
	机外静压 External Static Pressure	Pa	650	650	650	650	650	650	650
	制冷量 Cooling Capacity	KW	21.2	24.5	34.3	42.4	48.8	67.6	77.4
	制冷输入功率 Input Power	KW	7.6	8.3	11.8	14.6	16.6	23.2	26.1
室外机 Outdoor Unit	压缩机 Compressor	-	直流变频全封闭涡旋压缩机 DC Inverter Hermetic Scroll Compressor						
	冷凝风机 Condenser Fan	-	低噪轴流风机 Low Noise Axial Fan						
	节流方式 Throttling Method	-	电子膨胀阀 Electronic Expansion Valve						
	制冷剂 Refrigerant	-	R410A						
室内机 Indoor Unit	功能段 Function Section	-	混合+风机+均流+初效+中效+蒸发+冷凝热回收+辅助电加热+加湿+出风 Mixing+Fan+Diffuser+Primary & Medium Filter+Evaporator+Condenser Heat Recovery+Electric Heating+Humidification+Air Outlet						
	电机功率 Motor Input Power	KW	2.2	3.0	4.0	5.5	5.5	5.5	7.5
	冷凝热回收热量 Condenser Heat Recovery	KW	9.0	11.0	14.0	18.0	22.0	29.0	35.0
	辅助电加热量 Electric Heating	KW	5.0	6.0	7.0	9.0	11.0	15.0	18.0
	加湿量 Humidification Capacity	kg/h	8.0	8.0	15.0	15.0	15.0	25.0	25.0
	加湿功率 Humidification Input Power	KW	6.0	6.0	11.3	11.3	11.3	18.8	18.8

备注:

1. 制冷标定工况：室内设计温度湿度：24℃/RH50%，夏季室外温度DB35℃，WB28℃，机械露点温度12.9℃；冬季室内设计温度湿度：24℃/50%，冬季室外温度DB-8℃/RH60%。
 2. 机组夏季再热根据节能需求可采用冷凝再热代替大部分电加热，此时只配置少量电加热用于精确调温；
 3. 机组标准配置为电极加湿，可采用干蒸汽加湿代替电极加湿；
 4. 规格参数如因改良而更改，恕不另行通知，请和深圳金华利公司联系。
1. Rated cooling capacity based on: indoor temp. & humidity: 24℃/RH50%, Summer outdoor temp. DB35℃, WB28℃, Dew point temp. 12.9℃, Winter indoor temp. & humidity: 24℃/50%, outdoor temp. & humidity DB -8℃/RH60%.
 2. In Summer condenser reheating can be used to replace most of the electric heating, at this time only a little of electric heating for precise temperature adjustment;
 3. Electrode humidification is standard, and dry steam humidification is optional to instead of Electrode humidification;
 4. Changes of Specifications for improvements may be without notice, please contact our company.



◎直流变频医用净化空调机组—温湿度独立控制

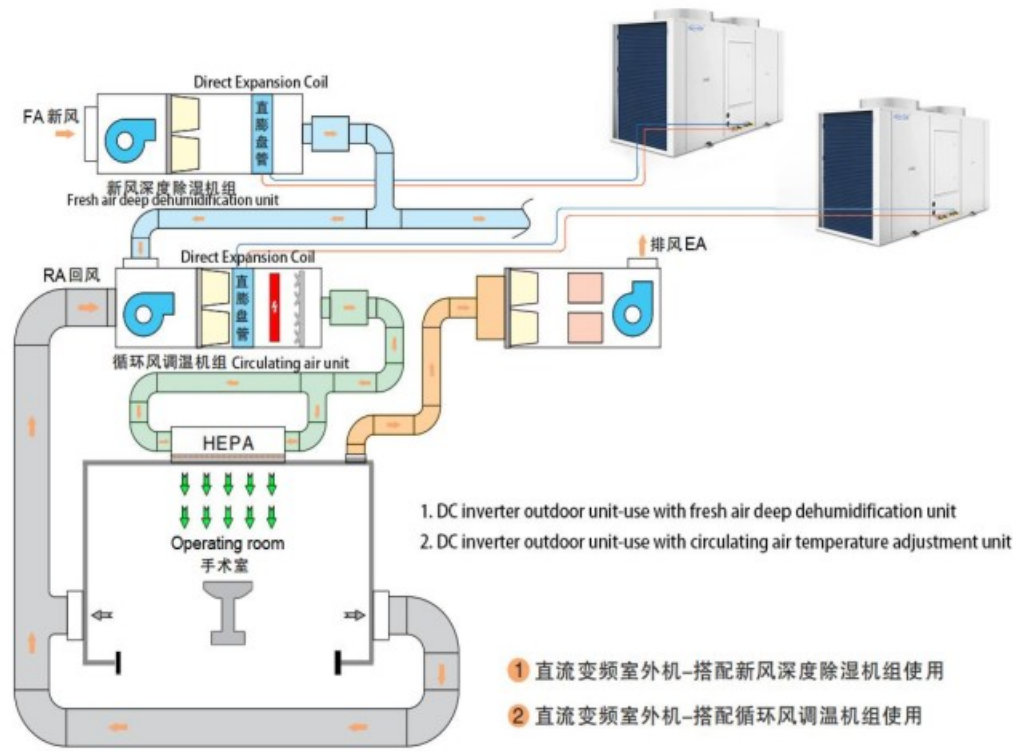
DC Inverter Medical Purification Air Conditioning Unit - Independent Control of Temperature and Humidity

国标GB50333-2013《医院洁净手术部建筑技术规范》提出，洁净手术部设集中新风冷热处理设施有条件时，宜采用新风湿度优先控制模式。

温湿度独立空调系统，将热湿进行解耦。新风集中处理进行湿度处理，循环风机组负责温度控制，形成温湿风控系统。系统节能较传统方案高40%以上。

The National Standard GB50333-2013 "Technical Specifications for the Construction of Hospital Clean Surgery Department" proposes that when conditions are available, the clean operation department should set up a centralized fresh air cooling and heat treatment facility, and the fresh air humidity priority control mode should be adopted.

The temperature and humidity independent air conditioning system decouples heat and humidity. The fresh air is centrally processed for humidity processing, and the circulating fan unit is responsible for temperature control to form a temperature and humidity air control system. The system energy saving is more than 40% higher than that of the traditional solution.



※适用范围 Application



洁净手术室
Clean Operating Room

洁净辅房
Clean Auxiliary Room

中心供应室
Central Supply Room

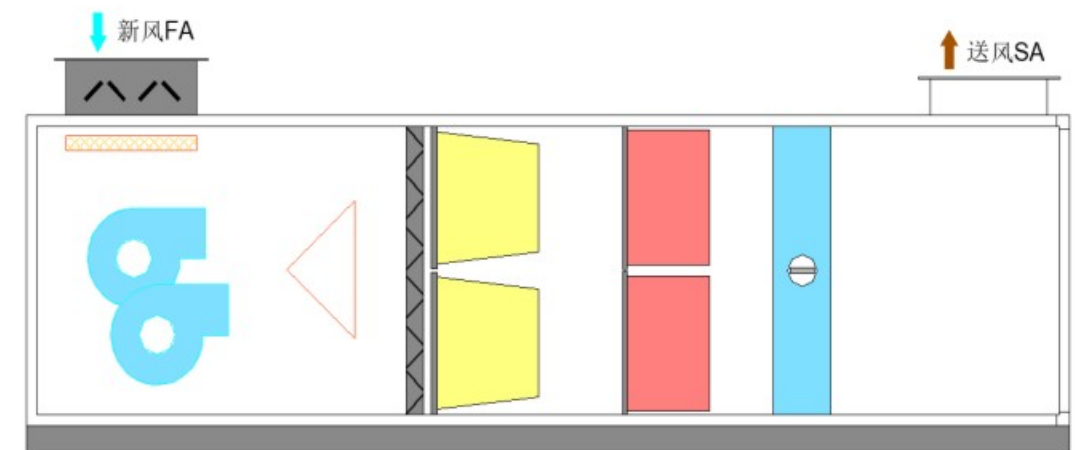
ICU重症监护病房
Intensive Care Unit

◎新风深度除湿机组 Fresh Air Deep Dehumidification Unit

型号 Model	室内机 Indoor Unit	MH***- SHMCA	15	20	20	30	40	50	60	70
		截面模数 Section Modulus	0611	0711	0812	1012	1012	1015	1117	1117
室外机 Outdoor Unit		HLAO-	10SCA	12SCA	16SCA	20SCA	24SCA	10SCA+ 20SCA	12SCA+ 24SCA	24SCA*2
整机性能 Unit Performance	新风量 Fresh air flow	m ³ /h	1500	2000	2000	3000	4000	5000	6000	7000
	机外静压 External Static Pressure	Pa	600	600	600	600	600	600	600	600
	制冷量 Cooling Capacity	KW	26.7	35.6	35.6	53.4	71.2	89	106.8	124.6
	制冷输入功率 Input Power	KW	10.7	14.2	14.2	21.6	28.7	36.3	43.2	50.6
室外机 Outdoor Unit	送风含湿量 Supply Air Moisture Content	-	8g/kg							
	压缩机 Compressor	-	直流变频全封闭涡旋压缩机 DC Inverter Hermetic Scroll Compressor							
	冷凝风机 Condenser Fan	-	低噪轴流风机 Low Noise Axial Fan							
	节流方式 Throttling Method	-	电子膨胀阀 Electronic Expansion Valve							
	制冷剂 Refrigerant	-	R410A							
室内机 Indoor Unit	功能段 Function Section	-	(新风+预热+风机)+均流+初效+中效+亚高效+深度除湿+出风 (Fresh Air+Preheating+Fan)+Diffuser+Primary & Medium Filter+ HEPA+Deep Dehumidification+Air Outlet							
	电机功率 Motor Input Power	KW	2.2	2.2	3.0	3.0	4.0	5.5	5.5	7.5
	冬季新风预热量 Preheat of Fresh Air in Winter	KW	4.0	5.0	7.0	7.0	11.0	13.0	16.0	19.0

备注:

- 夏季参数按照室外干湿球35℃/28℃设计，冬季参数按照室外温度DB-8℃/RH60%设计；
 - 新风温度较低时，热泵型机组制热模式下需将新风预热至0℃。
 - 参数表中冬季预热量为采用电预热将-8℃预热到0℃的推荐预热量，可根据实际需求进行选型匹配。
- Rated cooling capacity based on: outdoor temp. DB/WB 35℃/28℃, Winter outdoor temp. DB -8℃/RH60%.
 - When fresh air temperature is too low, the heat pump type unit under heating mode needs to preheat the fresh air to 0℃;
 - Above preheating in Winter is the recommended electric capacity for preheating from -8℃ to 0℃, be selected and matched according to actual requires;



新风+预热+风机 均流 初效+中效 亚高效 深度除湿 出风
FA+Preheating+Fan Diffuser Primary+Medium Filter HEPA Deep Dehumidification Air Outlet

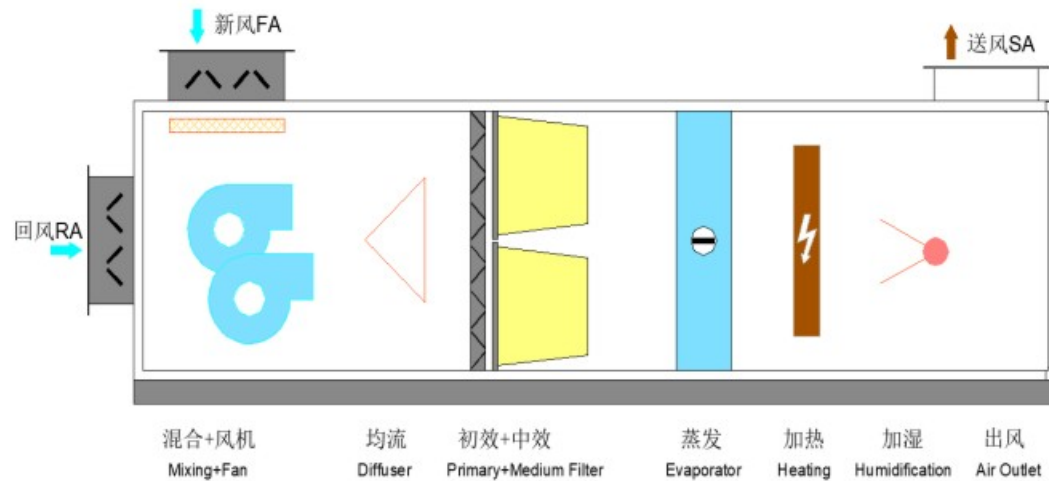
◎循环风机组性能参数 Circulating Air Unit

型号 Model	室内机 Indoor Unit	MH***- SHMCA6	26	33	42	52	65	85	105
	室外机 Outdoor Unit	HLAO-	03SCA	03SCA	03SCA	03SCA	06SCA	06SCA	06SCA
整机性能 Unit Performance	额定风量 Rated Air Flow	m ³ /h	2600	3300	4200	5200	6500	8500	10500
	新风量 Fresh Air Flow	m ³ /h	650	825	1050	1300	1300	2000	2000
	机外静压 External Static Pressure	Pa	650	650	650	650	650	650	650
	制冷量 Cooling Capacity	KW	4.4	5.6	7.0	8.8	12.2	14.8	12.1
	制冷输入功率 Input Power	KW	-	-	-	-	-	-	-
室外机 Outdoor Unit	压缩机 Compressor	-	直流变频全封闭涡旋压缩机 DC Inverter Hermetic Scroll Compressor						
	冷凝风机 Condenser Fan	-	低噪轴流风机 Low Noise Axial Fan						
	节流方式 Throttling Method	-	电子膨胀阀 Electronic Expansion Valve						
	制冷剂 Refrigerant	-	R410A						
室内机 Indoor Unit	功能段 Function Section	-	混合+风机+均流+初效+中效+蒸发+加热+加湿+出风 Mixing+Fan+Diffuser+Primary & Medium Filter+Evaporator+Condenser heat recovery+Humidification+Air Outlet						
	电机功率 Motor Input Power	KW	2.2	3.0	4.0	4.0	4.0	5.5	5.5
	加湿量 Humidification Capacity	kg/h	5.0	8.0	8.0	15.0	15.0	15.0	25.0
	加湿功率 Humidification Input	KW	3.8	6.0	6.0	11.3	11.3	11.3	18.8

备注:

1. 参数按照室内设计温湿度: 24℃/RH50%, 机械露点温度12.9℃设计;
2. 机组标准配置为电极加湿, 可采用干蒸汽加湿代替电极加湿;
3. 规格参数如因改良而更改, 恕不另行通知, 请和深圳金华利公司联系。

1. Above parameters are according to the indoor design temperature and humidity: 24 °C/RH50%; Dew point temperature 12.9 °C;
2. Electrode humidification is standard, and dry steam humidification is optional to instead of Electrode humidification;
3. Changes of Specifications for improvements may be without notice, please contact our company.



◎直流变频医用净化空调机组-冷凝热回收自取新风机组

DC Inverter Medical Purification Air Conditioning Unit - Fresh Air Thermostatic and Humidistat Unit

医学实验室或负压手术室等需要防止交叉污染的区域, 需采用全新风净化空调系统。

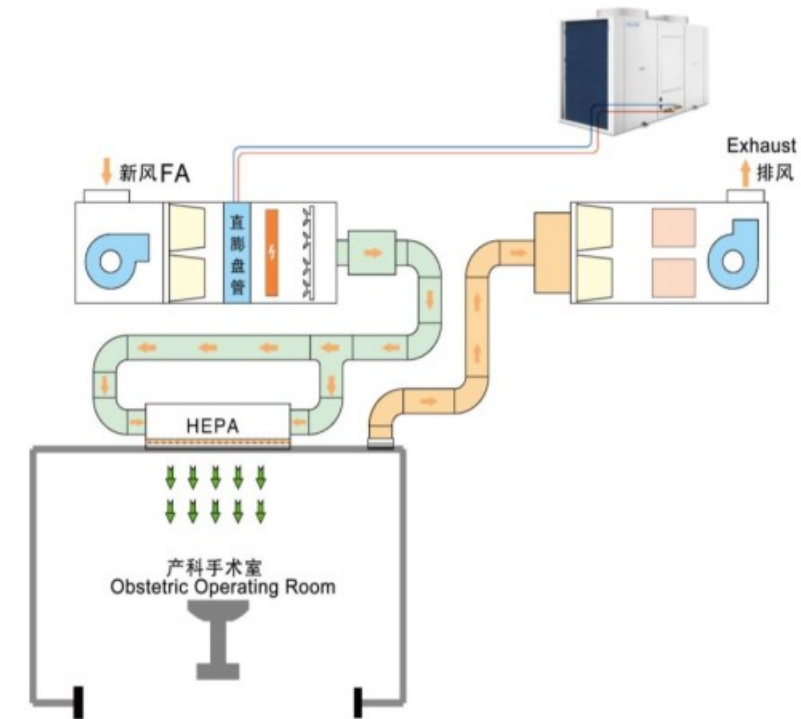
全新风系统能耗较高, 对室内温湿度精度要求严格。集中式中央空调系统灵活性不足, 难以满足需求。

直流变频全新风恒温恒湿机组为此类医院环境提供了最佳的空调解决方案。

Areas that need to prevent cross-contamination, such as medical laboratories or negative pressure operating rooms, need to use fresh air purification air conditioning systems.

The fresh air system has high energy consumption and strict requirements on the accuracy of indoor temperature and humidity. The centralized central air-conditioning system is not flexible enough to meet the demand.

The DC variable frequency fresh air constant temperature and humidity unit provides the best air conditioning solution for this type of hospital environment.



※适用范围



传染手术室
Infection Operating Room



产科手术室
Obstetric Operating Room



药品配置中心
Medicine Configuration Center



病理实验室
Pathology Laboratory

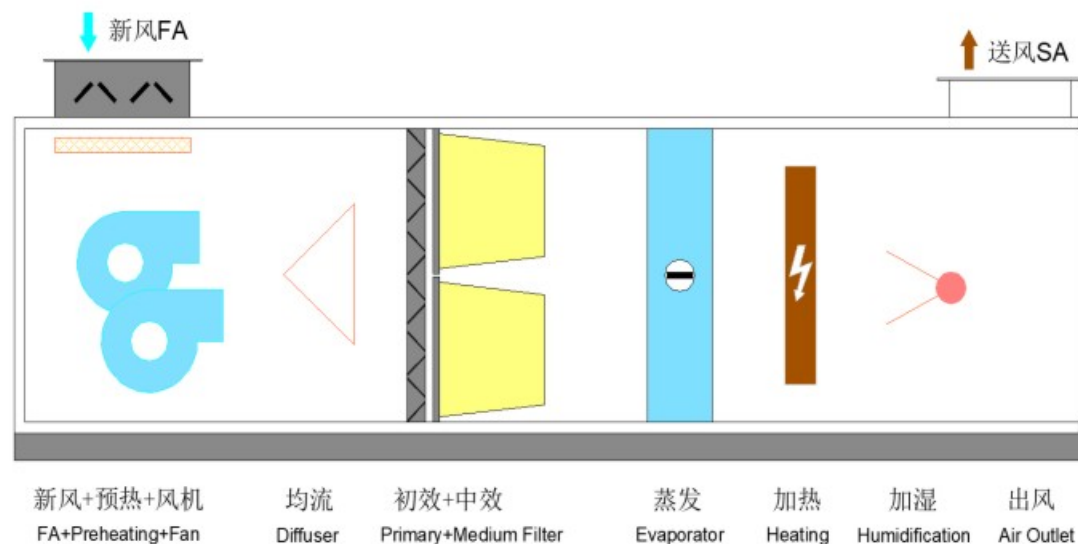
◎全新风恒温恒湿机组 Fresh Air Thermostatic and Humidistat Unit

型号Model	室内机 Indoor Unit	MH***- STCA	17	22	30	40	45	52	60	70	80	90
	室外机 Outdoor Unit	HLAO-	10HCA	16HCA	20HCA	24HCA	24HCA	10HCA+ 20HCA	12HCA+ 24HCA	20HCA+ 24HCA	24HCA *2	24HCA *2
整机性能 Unit Performance	新风量 Fresh air flow	m ³ /h	1700	2250	3000	3900	4500	5200	6000	7000	8000	9000
	机外静压 External Static Pressure	Pa	650	650	650	650	650	650	650	650	650	650
	制冷量 Cooling Capacity	KW	28	37	50	65	75	86	100	116	133	150
	制冷输入功率 Input Power	KW	10.4	13.7	18.7	24.5	28.0	31.8	37.0	43.1	49.6	56.0
室外机 Outdoor Unit	压缩机 Compressor	-	直流变频全封闭涡旋压缩机 DC Inverter Hermetic Scroll Compressor									
	冷凝风机 Condenser Fan	-	低噪轴流风机 Low Noise Axial Fan									
	制冷剂 Refrigerant	-	R410A									
室内机 Indoor Unit	功能段 Function Section	-	(新风+预热+风机)+均流+初效+中效+蒸发+加热+加湿+出风 (Fresh Air+Preheating+Fan)+Diffuser+Primary Filter+Medium Filter+ Sub-High Filter+Deep Dehumidification+Air Outlet									
	夏季电加热量 Electric Heating in Summer	KW	3.0	5.0	6.0	8.0	9.0	11.0	12.0	14.0	16.0	18.0
	冬季新风预热量 Preheat of Fresh Air in Winter	KW	5.0	6.0	8.0	11.0	12.0	14.0	16.0	19.0	22.0	24.0
	加湿量 Humidification Capacity	kg/h	20.0	22.0	30.0	40.0	45.0	60.0	60.0	70.0	80.0	90.0
	加湿功率 Humidification Input Power	KW	15.0	16.6	23.0	30.0	34.0	45.0	45.0	53.0	60.0	68.0

备注:

- 1、夏季制冷工况：室内设计温湿度：23℃/RH55%，夏季室外温度DB35℃，WB28℃；
- 2、冬季制热工况：室内设计温湿度：23℃/RH55%，冬季室外温度DB-8℃/RH60%；
- 3、参数表中冬季预热量为采用电预热-8℃预热到0℃的推荐热量，可根据实际需求进行造型匹配；
- 4、规格参数如因改良而更改，恕不另行通知，请和深圳金华利公司联系。

1. Rated cooling capacity based on: Indoor temp. & humidity: 23℃/RH55%, Summer outdoor temp. DB35℃, WB28℃;
2. Rated heating capacity based on: Indoor temp. & humidity: 23℃/RH55%, Winter outdoor temp. & humidity DB -8℃/RH60%;
3. Above preheating in Winter is the recommended electric capacity for preheating from -8℃ to 0℃, be selected and matched according to actual requires;
4. Changes of Specifications for improvements may be without notice, please contact our company.



◎金华利洁净手术室用空气调节机组概述

Overview of air conditioning unit used in Jinhuali clean operating room

金华利HL系列洁净手术室用空调机组，严格按照GB19569-2004国家标准要求进行打造的医院手术室专用型空调产品。实现对手术室温度、湿度、洁净度、压力梯度以及气流组织等可实现精确控制，匹配合适有效的净化杀菌功能，为手术顺利进行保驾护航。提供冷冻水式和风冷直膨式可选方案，产品系列完善。现已为全国多家医院提供空气处理设备，具备成熟的技术和丰富应用经验。

JinHuaLi HL series air conditioning units for clean operating rooms are specially designed for hospital operating rooms in strict accordance with the national standards of GB19569-2004. Accurate control of operating room temperature, humidity, cleanliness, pressure gradient and air flow organization can be realized, and appropriate and effective purification and sterilization function can be matched to escort the smooth operation. Provide chilled water type and air cooled direct expansion type options, complete product range. It has provided air treatment equipment for many hospitals in China, and has mature technology and rich experience in application.

Chilled Water Type 冷冻水式



Air Cooled Direct Expansion 风冷直膨式



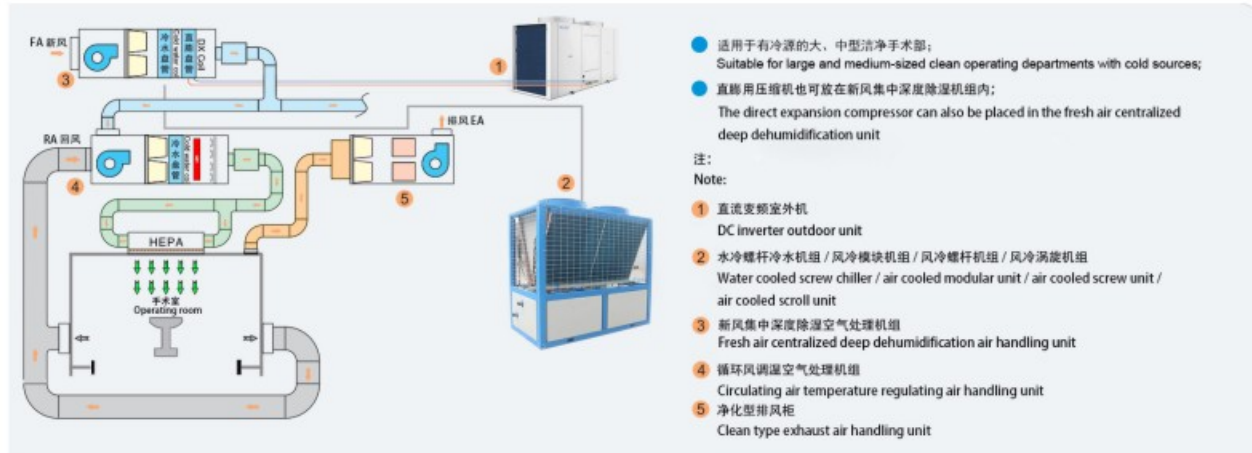
◎金华利洁净手术室解决方案概述

Jinhuali clean operating room solutions overview

序号 Series number	方案 plan	系统形式 System form	适用场合、系统形式 Applicable situation, system form
1	湿温度独立控制空调系统解决方案 Temperature & Humidity Independent Control A/C System Solutions	双冷源型 Double cooling source	<ul style="list-style-type: none"> ●有冷源的大、中型洁净手术部 ●机组形式：新风机组+循环机组 ●Large/Medium-sized clean operation rooms with cooling source ●Unit Type: Fresh air unit + Circulating air unit
		直膨型 Direct Expansion	<ul style="list-style-type: none"> ●无冷源的中型洁净手术部 ●机组形式：新风机组+循环机组 ●Medium-sized clean surgical department without cooling source ●Unit Type: Fresh air unit + Circulating air unit
2	自取新风空调系统解决方案 Fresh air conditioner System Solutions	冷冻水型 Chilled water type	<ul style="list-style-type: none"> ●运用于单独手术室或手术室新风量较小、带冷源的净化空调系统 ●机组形式：空调机组 ●It is used in the purification air conditioning system with small fresh air volume and cold source in the separate operating room or operating room. ●Unit Type: Air conditioning unit
		直膨型 Direct Expansion	<ul style="list-style-type: none"> ●运用于单独手术室或手术室新风量较小、无冷源的净化空调系统 ●机组形式：空调机组 ●It is used in the purification air conditioning system with small fresh air volume and no cold source in the separate operating room or operating room. ●Unit Type: Air conditioning unit

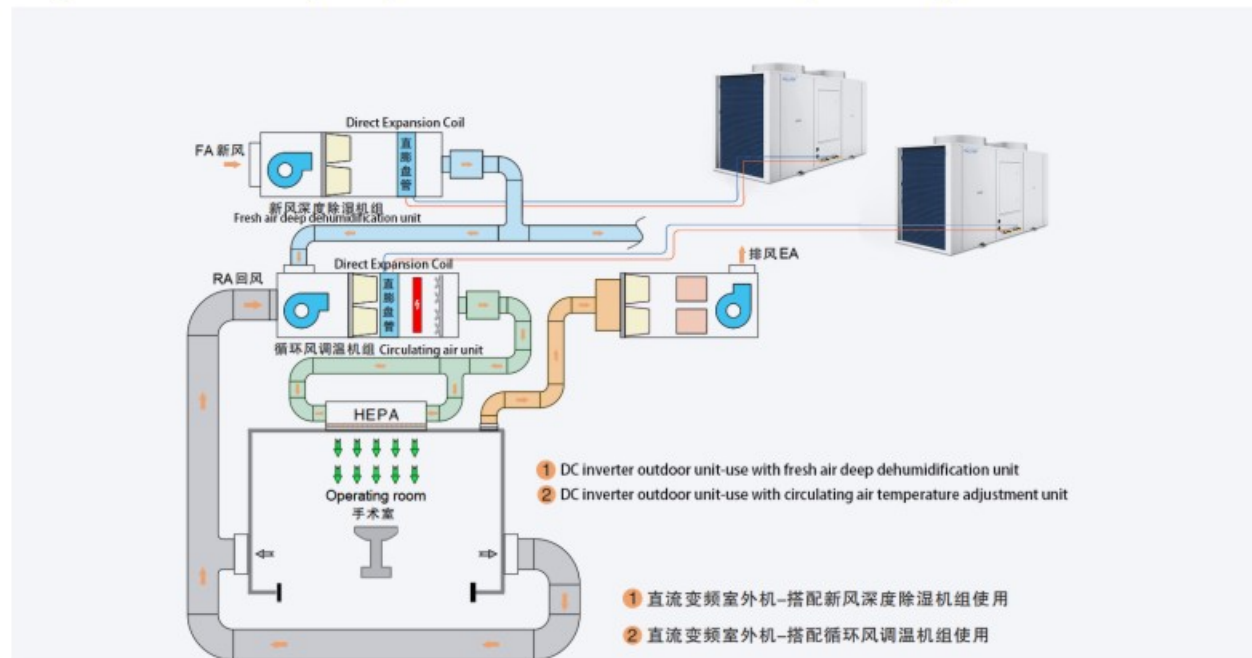
◎ 湿温度独立控制解决方案-双冷源型

Temperature & Humidity Independent Control Unit - Double Cooling Source Type



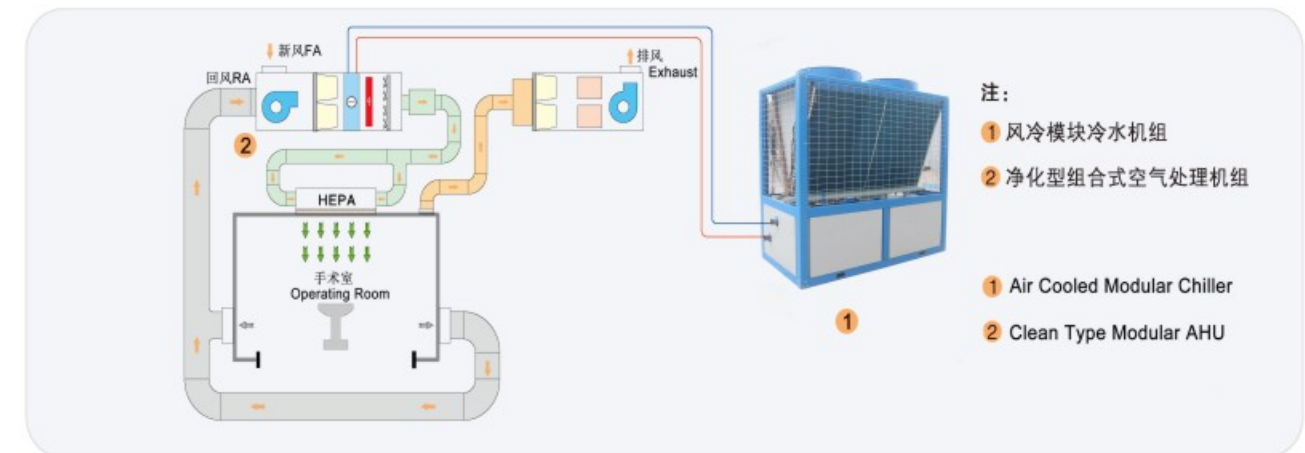
◎ 温湿度独立控制解决方案-直膨型

Temperature & Humidity Independent Control Unit - Direct Expansion Type



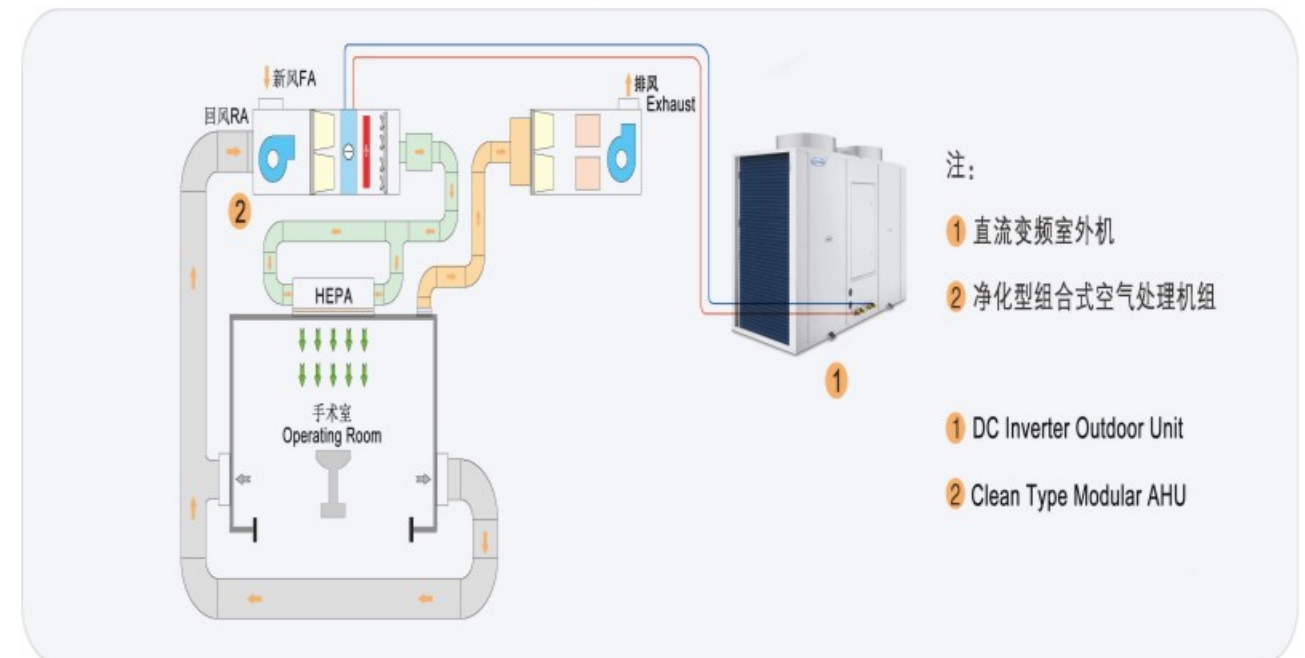
◎ 自取新风空调系统-冷冻水型

Fresh Air Unit - Chilled water type



◎ 自取新风空调系统-直膨型

Fresh Air Unit System - Direct Expansion Type



◎双冷源型温湿度独立控制机组技术性能参数表+示意图

Double Cooling Source Temperature & Humidity Independent Control Unit + Schematic Diagram

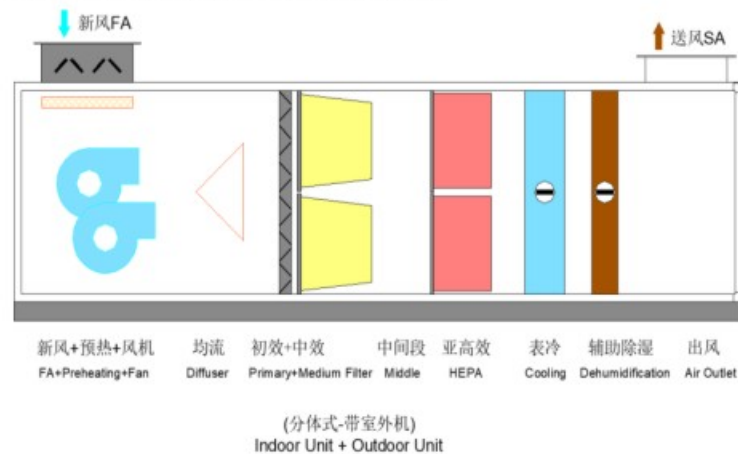
◎新风深度除湿机组 Fresh Air Deep Dehumidification Unit

型号 Model		HLHO	15	20	25	30	40	50	60	70	
截面模数 Section Modulus			0611	0711	0812	1012	1012	1015	1117	1117	
整机性能 Unit Performance	风量 Air flow	m ³ /h	1500	2000	2500	3000	4000	5000	6000	7000	
	机外静压 External Static Pressure	Pa	600	600	600	600	600	600	600	600	
	风机电机功率 Fan Motor Input Power	KW	2.2	2.2	3	3	4	5.5	5.5	7.5	
	冬季新风预热量 Preheat of Fresh Air in Winter	KW	7	9	11	13	18	22	26	31	
	送风含湿量 Supply Air Moisture Content	—	8g/kg								
第一级冷冻水供水 First Stage Chilled Water Cooling	供冷量 Cooling Capacity	KW	26.7	35.6	44.5	53.4	71.2	89	106.8	124.6	
	水流量 Water Flow	m ³ /h	4.6	6.1	7.7	9.2	12.2	15.3	18.4	21.4	
	水压降 Water Pressure Drop	KPa	43.7	50.3	47.7	51.1	49.6	58.7	63.5	68.3	
	接管口径 Water Pipe Diameter	DN	32	40	40	40	50	50	65	65	
供热 Heating	供热量 Heating Capacity	KW	22.4	29.9	37.4	44.9	59.8	74.8	89.7	104.7	
	水流量 Water Flow	m ³ /h	4.6	6.1	7.7	9.2	12.2	15.3	18.4	21.4	
	水压降 Water Pressure Drop	KPa	43.7	50.3	47.7	51.1	49.6	58.7	63.5	68.3	
	接管口径 Water Pipe Diameter	DN	32	40	40	40	50	50	65	65	
压缩冷凝段 Compressor Condensing section	压缩机类型 Compressor Type	—	全封闭涡旋式压缩机 Hermetic Scroll Type Compressor								
	室外机型号 Outdoor Model	HLAO**-AB	03	05	05	06	08	10	12	16	
	第二级直膨制冷量 Second Stage DX Cooling	KW	7.0	9.5	11.7	14.1	18.8	23.5	28.2	33.0	
制冷剂 Refrigerant	—	R410A									
功能段 Function Section	—	(预热+风机)+均流+初中效+中间段+亚高效+表冷(热水)+辅助除湿+出风 (Preheat+Fan)+Diffuser+Primary & Medium Filter+Middle+HEPA+Cooling(Hot Water)+Dehumidification+Air Outlet									

备注:

- 1、供冷量标定工况: 夏季室外温度DB35℃,WB28℃;冷水供回水7/12℃;
- 2、供热量标定工况: 冬季室外温度DB-8℃/RH60%,热水供水60℃, 水流量同供冷; 两管制冷热公用, 可选配单独热水盘管;
- 3、辅助除湿量标定工况: 室外温度DB20℃,WB16.5℃,用于过渡季节新风除湿; 新风12~20℃开启;
- 4、机外静压可根据客户要求设计;
- 5、规格参数如因改良而更改, 恕不另行通知, 请和深圳金华利公司联系。

1. Rated cooling capacity based on: Summer outdoor temp. DB35℃, WB28℃; Chilled water outlet/inlet 7℃/12℃;
2. Rated heating capacity based on: Winter outdoor temp. & humidity DB -8℃/RH60%; Hot water 60℃; Cooling & Heating using the common coil; Separated heating coil is optional;
3. Auxiliary dehumidification capacity based on: Outdoor temperature DB20℃, WB16.5℃, used for fresh air dehumidification in transition season; will start when fresh air 12~20℃;
4. The external static pressure can be designed according to customers' requirements;
5. Changes of Specifications for improvements may be without notice, please contact our company.



◎双冷源型温湿度独立控制机组技术性能参数表+示意图

Double Cooling Source Temperature & Humidity Independent Control Unit + Schematic Diagram

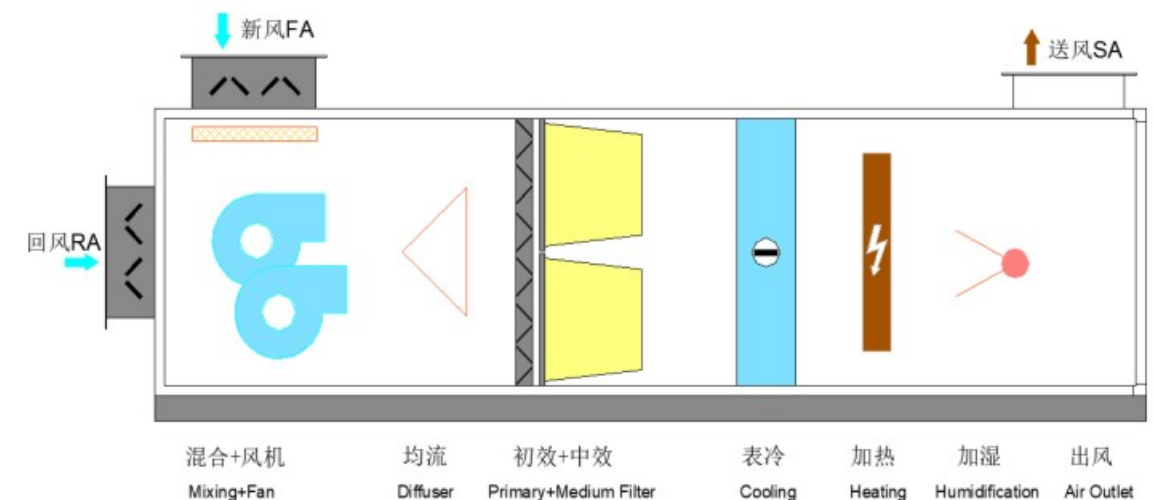
◎循环风调温机组 Circulating Air Temperature Regulating Unit

型号 Model		HLHO	26	33	42	52	65	85	105	120	145	165	190	210
截面模数 Section Modulus			0710	0710	0811	0813	1113	1114	1314	1316	1417	1419	1520	1720
整机性能 Unit Performance	风量 Air flow	m ³ /h	2600	3300	4200	5200	6500	8500	10500	12000	14500	16500	19000	21000
	新风量 Fresh Air flow	m ³ /h	650	825	1050	1300	1300	2000	2000	2400	3000	3500	4000	4500
	机外静压 External Static Pressure	Pa	650	650	650	650	650	650	650	650	650	650	650	650
	风机功率 Fan Input Power	KW	2.2	3	4	4	4	5.5	7.5	7.5	11	11	11	15
供冷 Cooling	供冷量 Cooling Capacity	KW	4.4	5.6	7.0	8.8	12.2	14.8	12.1	22.2	27	30.3	35	38.4
	水流量 Water Flow	m ³ /h	0.8	1.0	1.2	1.5	2.1	2.5	2.1	3.8	4.6	5.2	6.0	6.6
	水压降 Water Pressure Drop	KPa	5.9	7.6	12.3	14.2	18.8	18.7	18.8	21.5	27.3	27.3	29.5	31.8
	接管口径 Water Pipe Diameter	DN	20	20	20	20	25	25	25	32	32	32	40	40
供热 Heating	供热量 Heating Capacity	KW	4.4	5.6	7	8.8	12.2	14.8	12.1	22.2	27	30.3	35	38.4
	水流量 Water Flow	m ³ /h	0.8	1.0	1.2	1.5	2.1	2.5	2.1	3.8	4.6	5.2	6.0	6.6
	水压降 Water Pressure Drop	KPa	5.9	7.6	12.3	14.2	18.8	18.7	18.8	21.5	27.3	27.3	29.5	31.8
	接管口径 Water Pipe Diameter	DN	20	20	20	20	25	25	25	32	32	32	40	40
加湿 Humidification	加湿量 Humidification Capacity	kg/h	8	8	15	15	15	25	25	30	35	40	45	45
	加湿功率 Humidification Input Power	KW	6.6	6.6	11.3	11.3	11.3	11.8	18.8	22.6	26.4	30.2	33.9	33.9
功能段 Function Section	—	(混合+风机)+均流+初中效过滤+表冷(热水)+加湿+出风 (Mixing+Fan)+Diffuser+Primary & Medium Filter+Cooling(Hot Water)+Humidification+Air Outlet												

备注:

- 1、供冷量标定工况: 夏季室外温度DB35℃,WB28℃;冷水供回水7/12℃;
- 2、供热量标定工况: 冬季室外温度DB-8℃/RH60%,热水供水60℃, 水流量同供冷; 两管制冷热公用, 可选配单独热水盘管;
- 3、机外静压可根据客户要求设计;
- 4、规格参数如因改良而更改, 恕不另行通知, 请和深圳金华利公司联系。

1. Rated cooling capacity based on: Summer outdoor temp. DB35℃, WB28℃; Chilled water outlet/inlet 7℃/12℃;
2. Rated heating capacity based on: Winter outdoor temp. & humidity DB -8℃/RH60%; Hot water 60℃; Cooling & Heating using the common coil; Separated heating coil is optional;
3. Auxiliary dehumidification capacity based on: Outdoor temperature DB20℃, WB16.5℃, used for fresh air dehumidification in transition season; will start when fresh air 12~20℃;
4. The external static pressure can be designed according to customers' requirements;
5. Changes of Specifications for improvements may be without notice, please contact our company.



◎直膨型温湿度独立控制机组技术性能参数表+示意图

DX Type Temperature & Humidity Independent Control Unit + Schematic Diagram

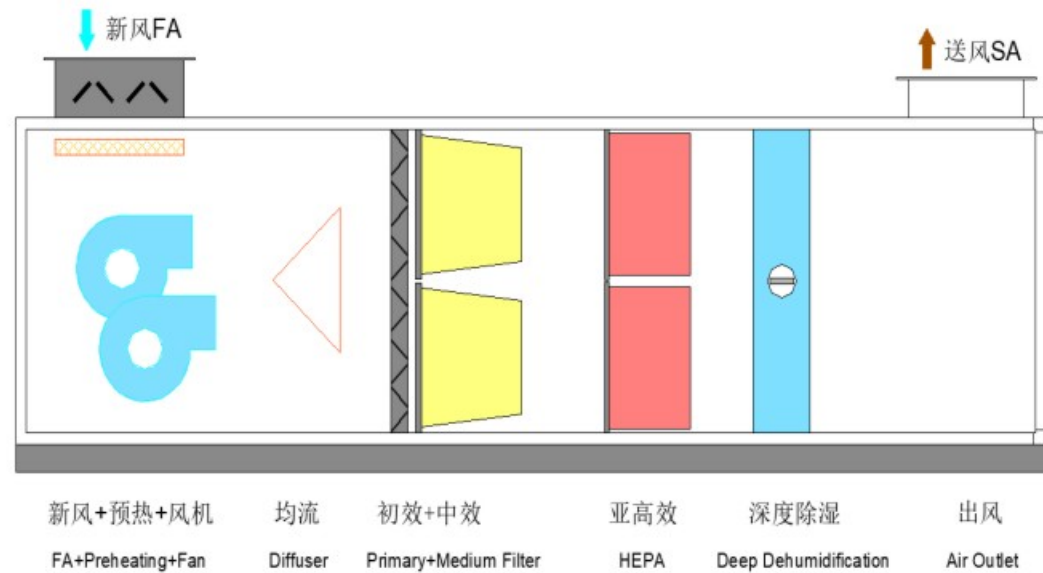
◎新风深度除湿机组 Fresh Air Deep Dehumidification Unit

型号 Model	室内机 Indoor Unit	HLHO***- SHMCA	15	20	25	30	40	50	60	70
		截面模数 Section Modulus	0611	0711	0812	1012	1012	1015	1117	1117
室外机 Outdoor Unit		HLAO-	10SCA	12SCA	16SCA	20SCA	24SCA	10SCA+ 20SCA	12SCA+ 24SCA	24SCA*2
整机性能 Unit Performance	新风量 Fresh air flow	m ³ /h	1500	2000	2500	3000	4000	5000	6000	7000
	机外静压 External Static Pressure	Pa	600	600	600	600	600	600	600	600
	制冷量 Cooling Capacity	KW	26.7	35.6	44.5	53.4	71.2	89.0	106.8	124.6
	制冷输入功率 Input Power	KW	10.7	14.2	18.0	21.6	28.7	36.3	43.2	50.6
室外机 Outdoor Unit	送风含湿量 Supply Air Moisture Content	—	8g/kg							
	压缩机 Compressor	—	直流变频全封闭涡旋压缩机 DC Inverter Hermetic Scroll Compressor							
	冷凝风机 Condenser Fan	—	低噪轴流风机 Low Noise Axial Fan							
	节流方式 Throttling Method	—	电子膨胀阀 Electronic Expansion Valve							
	制冷剂 Refrigerant	—	R410A							
室内机 Indoor Unit	功能段 Function Section	—	(新风+预热+风机)+均流+初效+中效+亚高效+深度除湿+出风 (Fresh Air+Preheating+Fan)+Diffuser+Primary & Medium Filter+HEPA+Deep Dehumidification+Air Outlet							
	电机功率 Motor Input Power	KW	2.2	2.2	3.0	3.0	4.0	5.5	5.5	7.5
	冬季新风预热量 Preheat of Fresh Air in Winter	KW	4.0	5.0	7.0	8.0	11.0	13.0	16.0	19.0

备注:

- 夏季参数按照室外干湿球35℃/28℃设计, 冬季参数按照室外温度DB-8℃/RH60%设计;
- 新风温度较低时, 热泵型机组制热模式下需将新风预热至0℃;
- 参数表中冬季预热量为采用电预热将-8℃预热到0℃的推荐预热量, 可根据实际需求进行选型匹配。

- Rated cooling capacity based on: outdoor temp. DB/WB 35℃/28℃, Winter outdoor temp. DB -8℃/RH60%.
- When fresh air temperature is too low, the heat pump type unit under heating mode needs to preheat the fresh air to 0℃;
- Above preheating in Winter is the recommended electric capacity for preheating from -8℃ to 0℃, be selected and matched according to actual requires;



◎直膨型温湿度独立控制机组技术性能参数表+示意图

DX Type Temperature & Humidity Independent Control Unit + Schematic Diagram

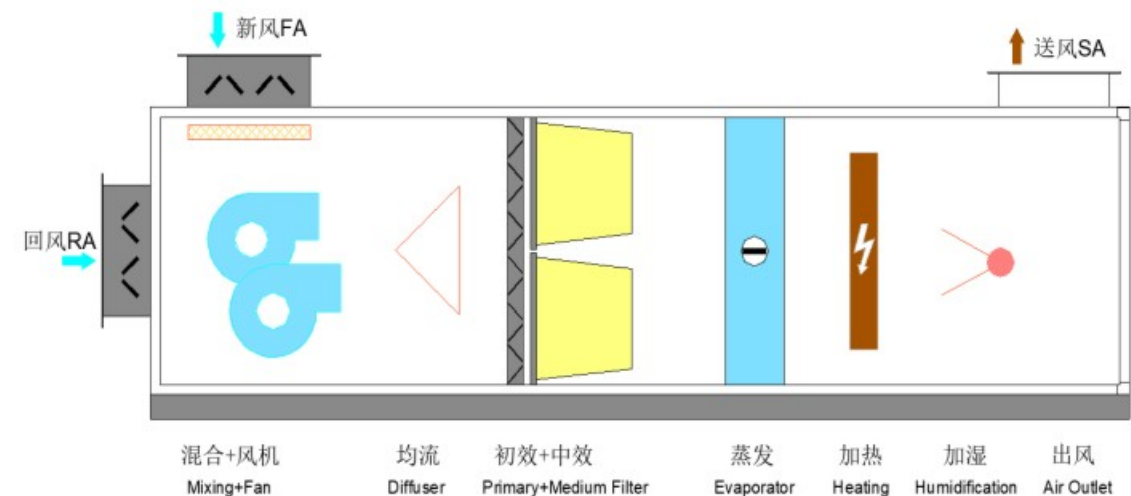
◎循环风调温机组 Circulating Air Temperature Regulating Unit

型号 Model	室内机 Indoor Unit	HLHO***- SHMCA	26	33	42	52	65	85	105
		截面模数 Section Modulus	0711	0711	0811	0813	1113	1114	1315
室外机 Outdoor Unit		HLAO-	03SCA	03SCA	03SCA	03SCA	06SCA	06SCA	06SCA
整机性能 Unit Performance	额定风量 Rated Air Flow	m ³ /h	2600	3300	4200	5200	6500	8500	10500
	新风量 Fresh Air Flow	m ³ /h	650	825	1050	1300	1300	2000	2000
	机外静压 External Static Pressure	Pa	650	650	650	650	650	650	650
	制冷量 Cooling Capacity	KW	4.4	5.6	7.0	8.8	12.2	14.8	12.1
	制冷输入功率 Input Power	KW	1.5	1.9	2.3	3.0	4.1	5.0	4.1
室外机 Outdoor Unit	压缩机 Compressor	—	直流变频全封闭涡旋压缩机 DC Inverter Hermetic Scroll Compressor						
	冷凝风机 Condenser Fan	—	低噪轴流风机 Low Noise Axial Fan						
	节流方式 Throttling Method	—	电子膨胀阀 Electronic Expansion Valve						
	制冷剂 Refrigerant	—	R410A						
室内机 Indoor Unit	功能段 Function Section	—	混合+风机+均流+初效+中效+蒸发+加热+加湿+出风 Mixing+Fan+Diffuser+Primary Filter+Medium Filter+Evaporator+Heating+Humidification+Air Outlet						
	电机功率 Motor Input Power	KW	2.2	3.0	4.0	4.0	4.0	5.5	5.5
	加湿量 Humidification Capacity	kg/h	5.0	8.0	8.0	15.0	15.0	15.0	25
	加湿功率 Humidification Input Power	KW	3.8	6.0	6.0	11.3	11.3	11.3	18.8

备注:

- 参数按照室内设计温度: 24℃/RH50%, 机械露点温度12.9℃设计;
- 机组标准配置为电极加湿, 可采用干蒸汽加湿代替电极加湿;
- 规格参数如因改良而更改, 恕不另行通知, 请和深圳金华利公司联系。

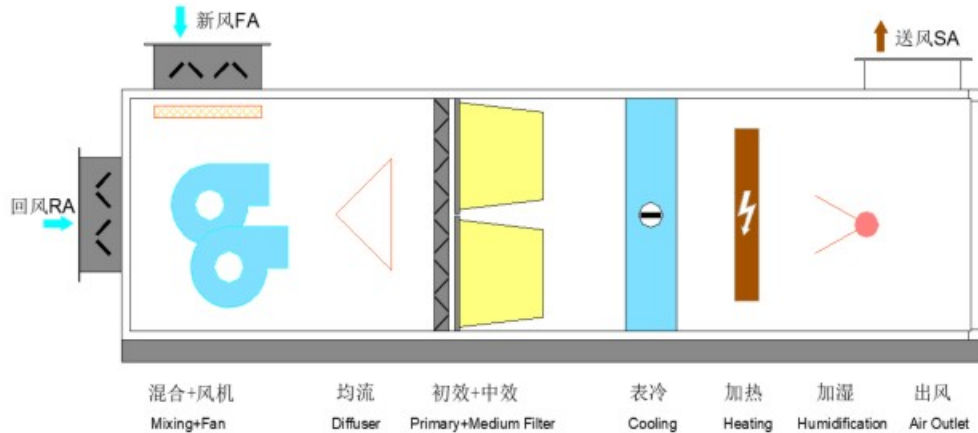
- Above parameters are according to the indoor design temperature and humidity: 24℃/RH50%; Dew point temperature 12.9℃;
- Electrode humidification is standard, and dry steam humidification is optional to instead of Electrode humidification;
- Changes of Specifications for improvements may be without notice, please contact our company.



◎自取新风机组-冷冻水型技术性能参数表+示意图 Fresh Air Unit - Chilled Water Type + Schematic Diagram

型号 Model		HLHO	26	33	42	52	65	85	105	120	145	165	190	210
截面模数 Section Modulus			0710	0710	0811	0813	1113	1114	1314	1316	1417	1419	1520	1720
整机性能 Unit Performance	风量 Air flow	m ³ /h	2600	3300	4200	5200	6500	8500	10500	12000	14500	16500	19000	21000
	新风量 Fresh Air flow	m ³ /h	650	825	1050	1300	1300	2000	2000	2400	3000	3500	4000	4500
	机外静压 External Static Pressure	Pa	650	650	650	650	650	650	650	650	650	650	650	650
	电热量 Electric heating	KW	7.6	9.7	12.3	15.3	19.1	24.9	30.8	35.2	42.5	48.4	55.7	61.6
供冷 Cooling	供冷量 Cooling Capacity	KW	19.7	25	31.8	39.4	45	62.8	71.4	83.1	101.7	117	134.2	149.3
	水流量 Water Flow	m ³ /h	3.4	4.3	5.5	6.8	7.7	10.8	12.3	14.3	17.5	20.1	23.1	25.7
	水压降 Water Pressure Drop	KPa	18.7	21.5	7.3	29.5	31.8	36.5	33.8	33.3	28.1	31.2	36.3	38.1
	接管口径 Water Pipe Diameter	DN	32	32	32	40	40	50	50	50	65	65	65	65
供热 Heating	供热量 Heating Capacity	KW	19.7	25	31.8	39.4	45	62.8	71.4	83.1	101.7	117	134.2	149.3
	水流量 Water Flow	m ³ /h	3.4	4.3	5.5	6.8	7.7	10.8	12.3	14.3	17.5	20.1	23.1	25.7
	水压降 Water Pressure Drop	KPa	18.7	21.5	27.3	29.5	31.8	36.5	33.8	33.3	28.1	31.2	36.3	38.1
	接管口径 Water Pipe Diameter	DN	32	32	32	40	40	50	50	50	65	65	65	65
加湿 Humidification	加湿器形式 Humidifier Type	—	电极式 Electrode type											
	加湿量 Humidification Capacity	kg/h	8	8	15	15	15	25	25	30	35	40	45	45
	加湿功率 Humidification Input Power	KW	6.6	6.6	11.3	11.3	11.3	11.8	18.8	22.6	26.4	30.2	33.9	33.9
功能段 Function Section	—	(混合+风机)+均流+初中效过滤+表冷(热水)+电加热+加湿+出风 (Mixing+Fan)+Diffuser+Primary & Medium Filter+Cooling(Hot Water)+Electric Heating+Humidification+Air Outlet												

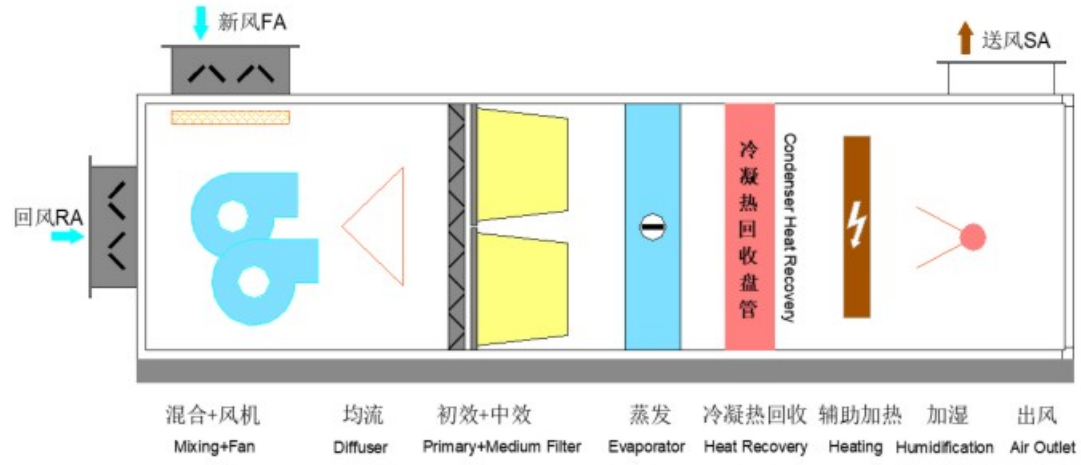
- 备注:
1. 制冷量标定工况: 室内设计温度: 24°C/RH50%, 夏季室外温度DB35°C, WB28°C; 机械露点温度12.9°C, 冷水供水7/12°C;
 2. 制热量标定工况: 室内设计温度: 24°C/50%, 冬季室外温度DB-8°C/RH60%, 热水供水60/50°C, 水流量同供冷; 两管制冷热公用。可选配单独热水盘管或者蒸汽加热盘管。
 3. 机组标准配置为电极加湿, 可采用干蒸汽加湿代替电极加湿;
 4. 空气处理电机功率基于标定机外静压以及G4初效+F8中效计算; 若需增加亚高效, 电机功率会有变化;
 5. 机外静压可根据客户要求设计;
 6. 规格参数如因改良而更改, 恕不另行通知, 请和深圳金华利公司联系。
1. Rated cooling capacity based on: Indoor temp. 24°C/RH50%, Summer outdoor temp. DB35°C, WB28°C; Dew point temp. 12.9°C, Chilled water outlet/inlet 7°C/12°C;
2. Rated heating capacity based on: Indoor temp. 24°C/RH50%, Winter outdoor temp. & humidity DB -8°C/RH60%; Hot water 60°C/50°C;
- Cooling & Heating using the common coil section; Separated hot water coil or steam heating coil is optional;
3. Electrode humidification is standard, and dry steam humidification is optional to instead of Electrode humidification;
4. The unit motor power is based on the calculation of ESP and G4 Primary filter + F8 Medium filter; if for sub-efficiency filter, the motor power will change;
5. The external static pressure can be designed according to customers' requirements;
6. Changes of Specifications for improvements may be without notice, please contact our company.



◎自取新风机组-直膨型技术性能参数表+示意图 Fresh Air Unit - DX Type + Schematic Diagram

型号 Model	室内机 Indoor Unit	HLHO***-SHMCA	26	33	42	52	65	85	105
		截面模数 Section	0711	0711	0811	0813	1113	1114	1315
整机性能 Unit Performance	室外机 Outdoor Unit	HLAO-	08SCA	10SCA	12SCA	16SCA	20SCA	24SCA	10SCA+20SCA
	额定风量 Rated Air Flow	m ³ /h	2600	3300	4200	5200	6500	8500	10500
整机性能 Unit Performance	新风量 Fresh Air Flow	m ³ /h	650	825	1050	1300	1300	2000	2000
	机外静压 External Static Pressure	Pa	650	650	650	650	650	650	650
	制冷量 Cooling Capacity	KW	21.2	24.5	34.3	42.4	48.8	67.6	77.4
	制冷输入功率 Input Power	KW	7.6	8.3	11.8	14.6	16.6	23.2	26.1
室外机 Outdoor Unit	压缩机 Compressor	-	直流变频全封闭涡旋压缩机 DC Inverter Hermetic Scroll Compressor						
	冷凝风机 Condenser Fan	-	低噪轴流风机 Low Noise Axial Fan						
	节流方式 Throttling Method	-	电子膨胀阀 Electronic Expansion Valve						
	制冷剂 Refrigerant	-	R410A						
室内机 Indoor Unit	功能段 Function Section	-	混合+风机+均流+初效+中效+蒸发+冷凝热回收+辅助加热+加湿+出风 Mixing+Fan+Diffuser+Primary & Medium Filter+Evaporator+Condenser Heat Recovery+Electric Heating+Humidification+Air Outlet						
	电机功率 Motor Input Power	KW	2.2	3.0	4.0	5.5	5.5	5.5	7.5
	冷凝热回收量 Condenser Heat Recovery	KW	9	11	14.0	18.0	22.0	29.0	35.0
	辅助电加热量 Electric Heating	KW	5.0	6.0	7.0	9.0	11.0	15.0	18.0
	加湿量 Humidification Capacity	kg/h	8.0	8.0	15.0	15.0	15.0	25.0	25.0
	加湿功率 Humidification Input Power	KW	6.0	6.0	11.3	11.3	11.3	18.8	18.8

- 备注:
1. 制冷量标定工况: 室内设计温度湿度: 24°C/RH50%, 夏季室外温度DB35°C, WB28°C, 机械露点温度12.9°C; 冬季室内设计温度湿度: 24°C/50%, 冬季室外温度DB-8°C/RH60%。
 2. 机组夏季再热根据节能需求可采用冷凝再热代替大部分电加热, 此时只配置少量电加热用于精确调温;
 3. 机组标准配置为电极加湿, 可采用干蒸汽加湿代替电极加湿;
 4. 规格参数如因改良而更改, 恕不另行通知, 请和深圳金华利公司联系。
1. Rated cooling capacity based on: indoor temp. & humidity: 24°C/RH50%, Summer outdoor temp. DB35°C, WB28°C, Dew point temp. 12.9°C, Winter indoor temp. & humidity: 24°C/50%, outdoor temp. & humidity DB -8°C/RH60%.
2. In Summer condenser reheating can be used to replace most of the electric heating, at this time only a little of electric heating for precise temperature adjustment;
3. Electrode humidification is standard, and dry steam humidification is optional to instead of Electrode humidification;
4. Changes of Specifications for improvements may be without notice, please contact our company.



◎洁净手术室净化空调机组选型指南

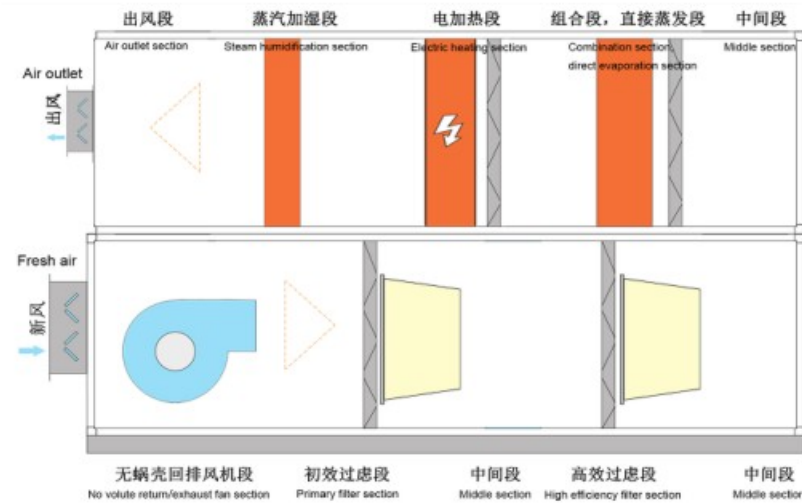
Selection Guide of Clean Air Conditioner Units for Clean Operating Room

手术室内范围 Operating Room Range	送风量m ³ /h Supply Air	新风量m ³ /h Fresh Air	手术室面积m ² Operating Room Area	我可对应机组型号 Corresponding Model	备注 Remark
两间Ⅳ级 2*Ⅳ Rooms	2600	650	单间Ⅳ级 /Ⅳ Room: 20-27	HLHO26	可选同风量直膨型 Could choose the DX type with same air volume
一间Ⅱ级 1*Ⅱ Room	3300	825	单间Ⅱ级 /Ⅱ Room: 40-45	HLHO33	
一间Ⅲ级+一间Ⅳ级 1*Ⅲ Room + 1*Ⅳ Room	4200	1050	单间Ⅲ级 /Ⅲ Room: 30-45 单间Ⅳ级 /Ⅳ Room: 20-27	HLHO42	
三间Ⅳ级 3*Ⅳ Rooms	4200	1050	单间Ⅳ级 /Ⅳ Room: 20-27	HLHO42	
两间Ⅲ级 2*Ⅲ Rooms	5200	1300	单间Ⅲ级 /Ⅲ Room: 30-45	HLHO52	
两间Ⅳ级+一间Ⅲ级 2*Ⅳ Rooms+1*Ⅲ Room	5200	1300	单间Ⅲ级 /Ⅲ Room: 30-45 单间Ⅳ级 /Ⅳ Room: 20-27	HLHO52	
两间Ⅲ级+一间Ⅳ级 2*Ⅲ Rooms+1*Ⅳ Room	6500	1300	单间Ⅲ级 /Ⅲ Room: 30-45 单间Ⅳ级 /Ⅳ Room: 20-27	HLHO65	
三间Ⅲ级 3*Ⅲ Rooms	8500	1600	单间Ⅲ级 /Ⅲ Room: 30-45	HLHO85	
一间Ⅰ级 1*Ⅰ Rooms	10500	1500	单间Ⅰ级 /Ⅰ Room: 45-65	HLHO105	

◎洁净辅房净化空调机组选型指南

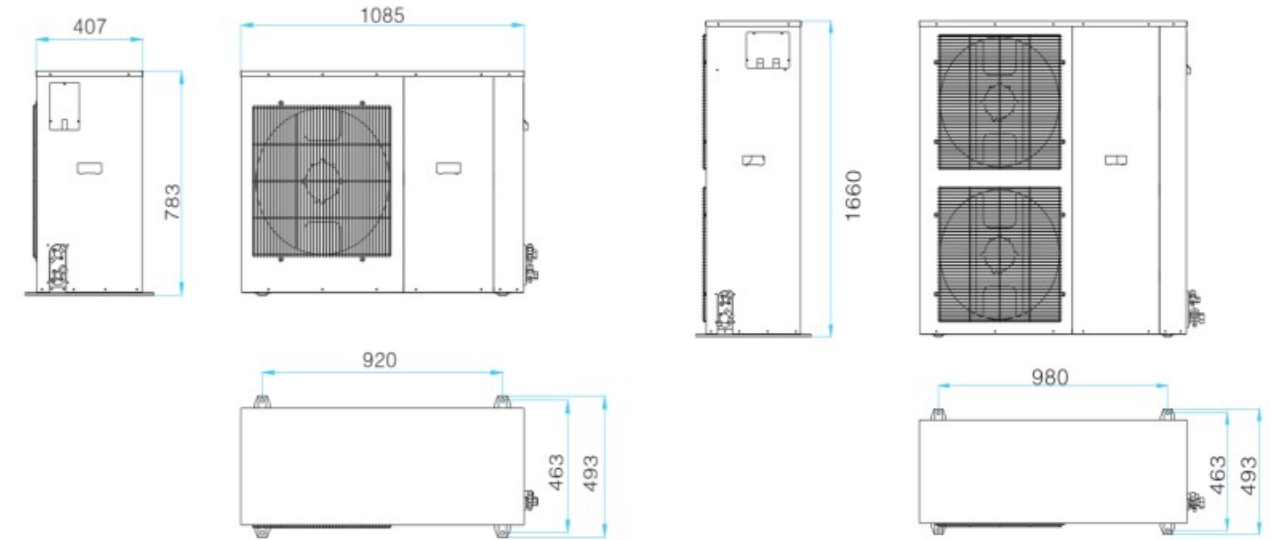
Selection Guide of Purification Air Conditioner Unit for Clean Auxiliary Room

手术室内范围 Operating Room Range	送风量m ³ /h Supply Air	新风量m ³ /h Fresh Air	手术室面积m ² Operating Room Area	我可对应机组型号 Corresponding Model	备注 Remark
Ⅳ级辅房 Class IV Auxiliary Room	3300	825	≤120	HLHO33	可选同风量直膨型 Could choose the DX type with same air volume
Ⅳ级辅房 Class IV Auxiliary Room	4200	1050	150	HLHO42	
Ⅳ级辅房 Class IV Auxiliary Room	6500	1300	200	HLHO65	
Ⅳ级辅房 Class IV Auxiliary Room	8500	1600	250	HLHO85	
Ⅲ级辅房 Class III Auxiliary Room	12000	2400	300	HLHO120	冷冻水型 Chilled water type
Ⅲ级辅房 Class III Auxiliary Room	14500	3000	400	HLHO145	
Ⅲ级辅房 Class III Auxiliary Room	16500	3500	450	HLHO165	
Ⅲ级辅房 Class III Auxiliary Room	19000	4000	500	HLHO190	
Ⅲ级辅房 Class III Auxiliary Room	21000	4500	600	HLHO210	



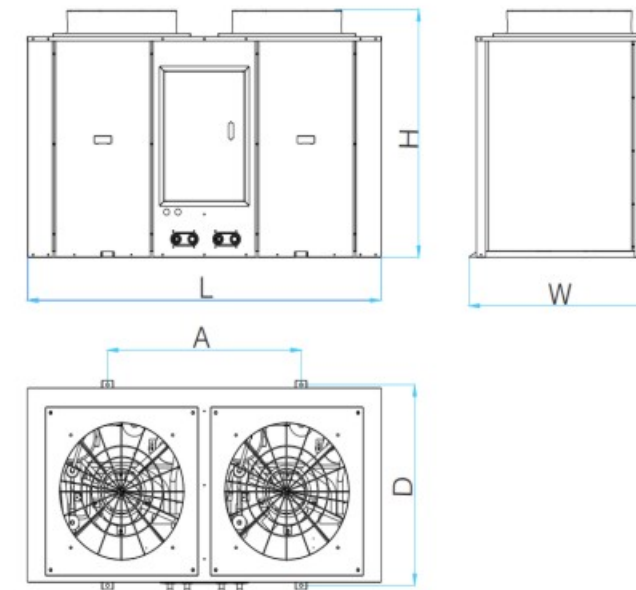
◎直流变频室外机外形图示意

DC Inverter Type Outdoor Unit Overall Sizes Drawing



HLAO-03SCA

HLAO-06SCA



HLAO-10SCA-HLAO-24HCA

	L	W	H	A	D
HLAO-10SCA	1460	857	987	830	817
HLAO-10HCA					
HLAO-12SCA	1860	997	1183	1120	957
HLAO-12HCA					
HLAO-16SCA	1860	997	1183	1120	957
HLAO-16HCA					
HLAO-20SCA	1860	997	1183	1120	957
HLAO-20HCA					
HLAO-24SCA	1860	997	1183	1120	957
HLAO-24HCA					

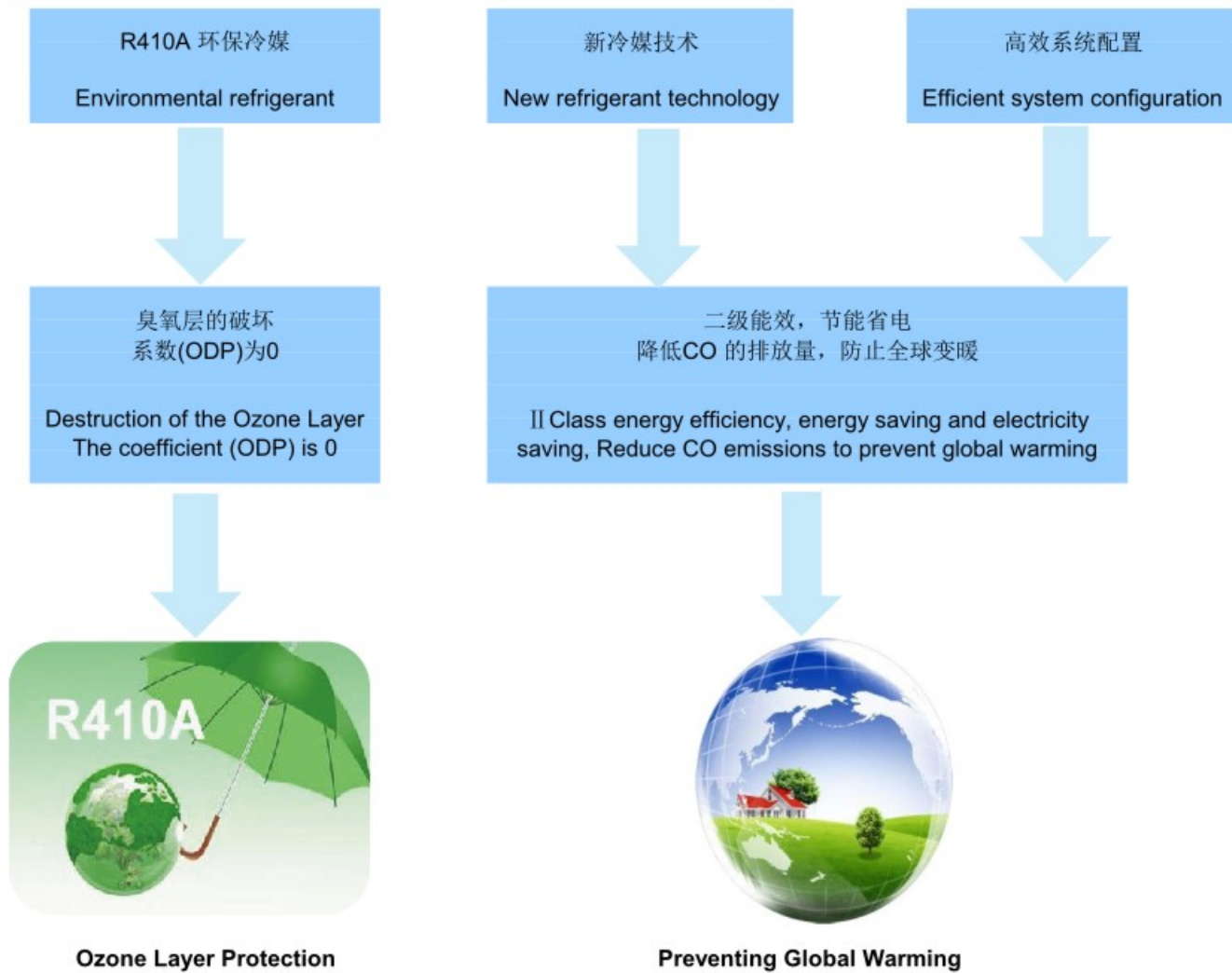
环保冷媒，低碳节能

Environmental refrigerant, low carbon and energy saving

采用R410A环保冷媒，利用能效高且不含氯元素，对臭氧层无破坏。是目前国际公认的R22冷媒的中长期替代品。全球变暖潜数值(GWP)小于0.2，减少对大气环境的伤害。良好的热工性能，系统更节能。

Adopt R410A environment-friendly refrigerant, with high energy efficiency and no chlorine element, no damage to ozone layer. It is a medium - and long-term substitute for R22 refrigerant which is recognized internationally. The global warming potential energy value (GWP) is less than 0.2, reducing the harm to the atmospheric environment. Good thermal performance, more energy saving system.

对比项 Compare the item	R22	R407C	R410A
GWP	0.34	0.27	0.2
ODP	0.05	0	0

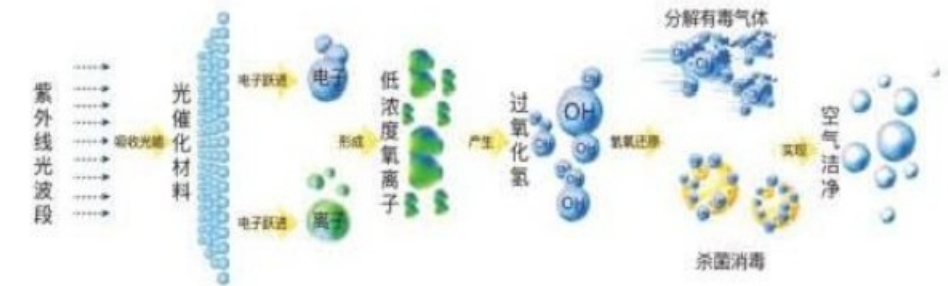


完善的杀菌技术方案 More perfect sterilization technology program

PHT光氢离子净化 PHT light hydrogen ion purification

纳米光氢离子净化，利用100~300μm宽频光子波发生管和特殊高分子材料制作。产生氢氧离子、超级氧离子、过氧化氢及纯态负氧离子，能迅速有效杀灭空气中超过99%以上的细菌、病毒和霉菌，并化解空气中的VOC化学气体、可吸入颗粒物及异味，净化完成后净化气体迅速被还原为氧气和氢气，无任何化学残留物质，不产生二次污染物，对人体和环境无害。

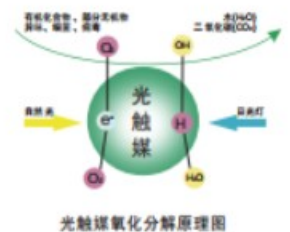
Nano-photohydrogen ion purification is made of 100~300μm broadband photon wave generator and special polymer materials. It produces hydroxide ions, super oxygen ions, hydrogen peroxide and pure negative oxygen ions, which can quickly and effectively kill more than 99% of bacteria, viruses and molds in the air, and dissolve VOC chemical gases, inhalable particles and Peculiar smell, after the purification is completed, the purified gas is quickly reduced to oxygen and hydrogen, without any chemical residues, no secondary pollutants, and harmless to the human body and the environment.



TiO2光触媒杀菌 TiO2 photocatalyst sterilization

二氧化钛光触媒是半导体光催化剂，在光照下能够产生强氧化还原性的粒子。能够将空气中的有害物质彻底分解掉，一些病毒细菌类微生物也会通过氧化还原而被杀灭，最终起到净化环境，抗菌自清洁的作用。最终产物为无污染的二氧化碳和水，催化剂可反复利用，催化效率高。

Titanium dioxide photocatalyst is a semiconductor photocatalyst, which can produce strong redox particles under light. It can completely decompose harmful substances in the air, and some viruses, bacteria, and microorganisms will also be killed through oxidation and reduction, and ultimately play a role in purifying the environment and anti-bacterial and self-cleaning. The final product is pollution-free carbon dioxide and water, the catalyst can be reused, and the catalytic efficiency is higher.



UV杀菌，无污染 UV sterilization, no pollution

采用254nm波长的紫外线，很容易被生物体吸收，作用于生物体的遗传物质DNA/RNA，使DNA/RNA遭到破坏而导致细菌和病毒死亡。紫外线可集中很高强度在短时间内杀灭细菌和病毒，紫外线杀菌属于纯物理消毒方法，无二次污染。

Ultraviolet rays with a wavelength of 254nm are easily absorbed by organisms, acting on the genetic material DNA/RNA of organisms, causing DNA/RNA to be destroyed and causing the death of bacteria and viruses. Ultraviolet rays can concentrate high intensity to kill bacteria and viruses in a short time. Ultraviolet rays sterilization is a purely physical disinfection method without secondary pollution.

杀菌对象 Sterilization Object	秒 (s)	杀菌对象 Sterilization Object	秒 (s)
细菌类 Bacteria	炭疽杆菌 Bacillus Anthracis	霉菌孢子 Mould Spores	黑曲霉 Aspergillus Niger
	破伤风杆菌 Clostridium Tetani		毛霉菌属 Mucor Mucedo
	痢疾杆菌 Dysentery Bacilli		青霉菌属 Penicillium Roqueforti
	大肠杆菌 Escherichia Coli	水藻类 Algae	蓝绿藻 Blue-Green Algae
	葡萄球菌属 Staphylococcus Albus		线虫卵 Nematode Eggs
	结核杆菌 Micrococcus Candibus		绿藻 Green Algae
病毒 Virus	嗜菌胞病毒 Bacteriophage	鱼类病 Fish Disease	原生动物类 Protozoa
	流感病毒 Influenza		白斑病 Leukoplakia
	脊髓灰质炎病毒 Poliovirus 1		感人性胰坏死病 Touching Pancreaic Necrosis
	乙肝病毒 Hepatitis Virus		病菌类出血病 Bacterial Haemorrhagic Disease



风电机系统

Fan motor system

- 可根据不同场合选用各种类型的品牌风机，如双进风离心风机、无蜗壳风机或EC直流无刷无蜗壳风机，风机叶轮在出厂前经过动静平衡测试和校正，配备专门的防振措施，振动小、运行安静、运行高效、使用寿命更长；
 - 风机均已通过国际权威机构美国AMCA产品性能认证，保证风机可靠性；
 - 风机轴承为进口品牌轴承，设计工况下使用寿命大于75000小时；
 - 高级洁净场所推荐使用变频电机直联驱动无蜗壳风机或EC直流无刷无蜗壳风机，避免皮带传动磨损后产生的微尘和有害气体对系统带来污染；
 - 风机根据压差控制调整风速、变风量输出，即保证控制精度达到节能效果。
- Various types of brand fans can be selected according to different occasions, such as double inlet centrifugal fan, no volute fan or EC DC brushless no volute fan, fan impeller in the factory after static and static balance test and correction, equipped with special anti-vibration measures, small vibration, quiet operation, efficient operation, long service life;
- Fans have passed the international authority of the United States AMCA product performance certification, to ensure the reliability of the fan;
- The fan bearing is imported brand bearing, the service life is more than 75000 hours under the design condition;
- It is recommended to use frequency conversion motor direct connection drive volute less fan or EC DC brushless volute less fan to avoid the dust and harmful gas caused by belt
- The fan adjusts the wind speed and variable air volume output according to the pressure difference control, which ensures the control precision to achieve the effect of energy

国际品牌
全封闭高
效压缩机International
brand hermetic
high efficiency
compressor

- 采用R410A专用压缩机，蒸发温度可低至-25°C，应用范围广泛；
 - 全封闭结构强度高，抗压可达45Bar；
变容量设计，在满负荷与部分负荷下均能实现高效运行。
 - 压缩机轻量化设计，振动小，运行噪声低。
- Use R410A special compressor, evaporation temperature can be as low as -25°C, a wide range of applications.
- Fully enclosed structure with high strength, pressure resistance up to 45Bar. Variable capacity design, under full load and partial load, Can achieve high energy efficiency operation.
- Compressor lightweight design, small vibration, low operating noise.

普通压缩机
0-50%-100%
分级调节直流变频压缩机
10%-120%
无级调节EC
轴流风机EC
Axial Fan

- 室外机配置大角度、低转速、低噪音的EC轴流风机。
 - 直流无刷技术应用大幅提高风机系统运行效率。
 - 结合压缩机系统变频调节，换热需求匹配更加精准。
- The outdoor unit is equipped with a large-angle, low-speed, low-noise EC axial fan.
- The application of DC brushless technology greatly improves the operating efficiency of the fan system.
- Combined with the frequency conversion adjustment of the compressor system, the heat exchange demand matching is more accurate.

干式水盘
无积水

Dry drip pan

- 采用独有的错层大坡度结构，能有效抑制冷凝水滞留。
 - 干式抗菌结构设计，能有效抑制细菌滋生。
 - 外壁绝热保温，有效杜绝水盘产生凝结水。
- The use of unique staggered layer large slope structure, can effectively inhibit condensate water retention.
- Dry antibacterial structure design, can effectively inhibit the breeding of bacteria.
- Thermal insulation of the outer wall, effectively prevent the condensate produced by the water plate.

温湿度精
准调节Accurate
Adjustment of
Temperature
and Humidity

- 节流机构配置多步数高精度电子膨胀阀，即时响应冷媒输出需求。
 - 0-100%流量调节，范围广，精度高，实现冷媒合理分配，热交换效率高，温湿度控制精准。
- The throttling mechanism is equipped with a multi-step high-precision electronic expansion valve, which instantly responds to refrigerant transmission out demand.
- 0~100% flow adjustment, wide range and high precision to realize refrigerant Reasonable distribution, high heat exchange efficiency, precise temperature and humidity control.



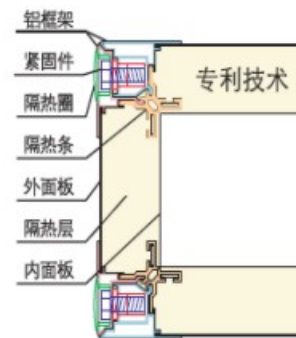
轴流风机 EC Axial Fan

干式水盘无积水
Dry drip pan温湿度精准调节
Accurate Adjustment of
Temperature and Humidity

专利结构, 空气品质更有保障

Patented structure, more guaranteed air quality

- 三维互锁型箱体结构。
- 结构精巧, 密封性能好。
- 箱体密封性能达到L1级, 箱体强度达到D1级, 均为欧标 EN1886要求的最高级别。
- Independent research three-dimensional interlocking box structure.
- Exquisite structure and good sealing performance.
- The sealing performance of the box body reaches L1 level, and the box body strength reaches D1 level. Both are the highest level required by the European standard EN1886.



双层夹心式面板, 隔热性能强

Double-layer sandwich panel, strong heat insulation performance

- 箱体面板采用30mm、40mm、50mm厚度可选双层夹心结构, 面板阻燃系数高, 达到B1级防火级别, 安全性能好。
- 面板材料导热系数小于0.03W/m.K, 热桥因子级别可达TB1级欧标EN1886最高级别。
- 板材可选用抗菌不锈钢板材, 对常见的大肠杆菌、金黄色葡萄球菌、肺炎克雷伯氏菌等抗菌率均达99%以上, 具备优良的广谱抗菌性。
- The cabinet panel adopts a double-layer sandwich structure with 30mm, 40mm, and 50mm thickness options. The panel has a high flame retardant coefficient, reaching the B1 level of fire protection, and has good safety performance.
- The thermal conductivity of the panel material is less than 0.03W/m.K, and the thermal bridge factor can reach the highest level of TB1 European standard EN1886.
- The plate can be made of antibacterial stainless steel plate. The antibacterial rate of common Escherichia coli, Staphylococcus aureus, Klebsiella pneumoniae is over 99%, and it has excellent broad-spectrum antibacterial properties.



全焊接过滤器框架, 无泄漏

Fully welded filter frame, no leakage

- 传统拼接式或抽拉式过滤器框架结构, 密封性差。空气逃逸率高, 导致未被净化的空气送入室内。
- 金华利全焊接过滤器框架, 一体成型, 框架旁通漏风率远低于欧标EN1886中 F9级要求, 空气净化率高。
- Traditional spliced or pull-out filter frame structure has poor airtightness. Air escape rate is high, resulting in unpurified air being sent indoors.
- Jinhuali fully welded filter frame, integrally formed, the frame bypass air leakage rate is much lower than the European standard EN1886 requires F9 level, and the air purification rate is higher.



种类齐全的过滤器类型

A wide range of filter types

- 过滤器单位面积质量、阻力、机械性能、抗静电特性、吸湿性、耐燃性及过滤效率均符合国家标准GB/T14295-2008, 高效过滤器符合国家其它相关标准;
- 初效过滤段: 有板式和袋式可选, 过滤器材质未优质化纤无纺布;
- 中效过滤器: 板式、袋式和密褶式可选, 过滤器材质优质无纺布或玻纤;
- 亚高效过滤器: 有袋式和密褶式可选, 过滤器材质为优质玻纤;
- 高效过滤器: 有密褶式和大风量箱式可选, 过滤器材质为优质玻纤;
- The filter unit area mass, resistance, mechanical properties, antistatic characteristics, moisture absorption, flame resistance and filtration efficiency are all in line with the national standard GB/T14295-2008, and the high-efficiency filter meets other relevant national standards;
- Preliminary filter section: plate type and bag type are available, and the filter material is not high-quality chemical fiber non-woven fabric;
- Medium-efficiency filter: plate type, bag type and dense pleated type are available, the filter material is high-quality non-woven fabric or glass fiber;
- Sub-high efficiency filter: bag type and dense pleated type are available, and the filter material is high-quality glass fiber;
- High-efficiency filter: Dense pleated type and large air volume box type are available, and the filter material is high-quality



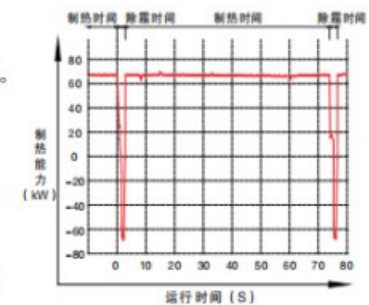
自主学习融霜技术

Self-learning defrost technology

金华利自主学习除霜发明专利技术 (ZL201910698663.8), 打破传统的温度-时间式除霜模式。采用环境温度和盘管温度组合线性拟合, 智能化判断除霜周期和除霜时长。

自动计算不同室外环境温度下对应的室外盘管温度, 自动形成智能化除霜逻辑, 并保持不断优化的学习能力。使得机组能根据室外环境温度的变化智能改变除霜条件, 适应不同的气候区域, 稳定输出热水, 保持室内温度恒定, 系统运行更稳定。

Jinhuali independently learned the patented defrosting technology (ZL201910698663.8), breaking the traditional temperature-time defrosting mode. It adopts the linear fitting of the combination of ambient temperature and coil temperature to intelligently judge the defrost period and defrost duration. Automatically calculate the corresponding outdoor coil temperature under different outdoor ambient temperatures, automatically form an intelligent defrosting logic, and maintain the ability to continuously optimize learning. This allows the unit to intelligently change the defrosting conditions according to changes in outdoor ambient temperature, adapt to different climate regions, output hot water stably, keep the indoor temperature constant, and make the system more stable.



除湿性能优异 Excellent dehumidification performance

制冷剂直膨系统，低温制冷剂直接对空气进行降温、除湿，无需冷水空调的二次换热，提高换热效率，保证制冷除湿性能。在梅雨高湿季节或开机时，可实现高制冷量输出，快速满足室内短时间内高冷负荷需求。

The refrigerant direct expansion system, the low-temperature refrigerant directly cools and dehumidifies the air, does not require the secondary heat exchange of the cold water air conditioner, improves the heat exchange efficiency, and ensures the refrigeration and dehumidification performance. During the rainy season and high humidity or when the machine is turned on, it can achieve high cooling capacity output and quickly meet the indoor high cooling load demand in a short period of time.



欧洲标准箱体品质说明 European standard cabinet quality description

HIGOLDEN 箱体符合EN1886标准等级，EN1886标准等级划分

HIGOLDEN cabinet conforms to EN1886 standard grade, EN1886 standard grade division

高级别 Higher level ■ ■ ■ 低级别 lower level

		高级别 Higher level			低级别 lower level		
强度等级 Strength level	D1	强度等级 Strength level	D1	D2	D3		
		箱体可承受最大压力下的最大相对变形量 mm/m The cabinet can withstand the maximum relative deformation under the maximum pressure mm/m	4	10	>10		
漏风率等级 Air leakage rate grade	L1	漏风率等级 Air leakage rate grade	L1	L2	L3		
		400Pa测试压力下箱体最大泄漏率l/(s.m³) The maximum leakage rate of the box under the test pressure of 400Pa l/(s.m³)	0.15	0.44	1.32		
过滤器等级 Filter grade	F9	过滤器等级 Filter grade	F9	F8	F7	F5	G1-F5
		400Pa测试压力下过滤器最大旁通漏率% The maximum bypass leakage rate of the filter under the test pressure of 400Pa%	0.5	1	2	4	6
传热系数等级 Heat transfer coefficient grade	T2	传热系数等级 Heat transfer coefficient grade	T1	T2	T3	T4	T5
		箱体传热系数 (U) W/(m².K) Box heat transfer coefficient (U) W/(m².K)	U≤0.5	0.5≤U≤1.0	U≤0.5	0.5≤U≤1.0	No request
热桥系数等级 Thermal bridge coefficient grade	TB1	热桥系数等级 Thermal bridge coefficient grade	TB1	TB2	TB3	TB4	TB5
		箱体传热系数Kb Box heat transfer coefficient Kb	0.5≤U≤1.0	0.5≤U≤1.0	0.5≤U≤1.0	0.5≤U≤1.0	No request

◎ 精品样板工程 Main Projects



四川大学华西医院



中山大学附属第一医院



南方医科大学南方医院



广东省人民医院



北京中日友好医院



首都医科大学附属北京朝阳医院

◎精品样板工程 Main Projects



首都医科大学附属北京安贞医院



首都医科大学宣武医院



南昌大学第一附属医院



武汉大学口腔医院



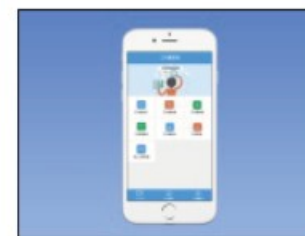
贵航300医院



佛山市第一人民医院

科学管理，绿色节能

Scientific management, green and energy saving



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Mobile user access



平板端用户访问
Tablet user access



电脑端用户访问
Computer user access