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# INTELLIGENT PLANTING CABIN ENVIRONMENTAL CONTROL UNIT

## 智能种植方舱环境控制机组



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# PRODUCT OVERVIEW

## 产品概述



HICON智能种植方舱环境控制机组。公司引入先进设计理念和制造工艺,设计开发的一款品质优良的空调产品。根据动物和植物种植对环境的要求进行包括通风、湿度、温度、新风、二氧化碳浓度、空气净化、培育阶段和时间控制为一体;全方位控制环境因素的食用菌类空气处理机组,该设备广泛适用于杏鲍菇、蟹味菇、灰树花、金针菇、木耳等珍稀食用菌工厂化生产的整个工艺过程。

本系列机组结构紧凑,在GN或G4过滤效率的基础上,本公司可以非标设计使用过滤效率达到F6,同时还可以根据实际需要,对空气进行除臭、消毒、杀菌、芳香等多功能处理。

HICON Intelligent Planting Cabin Environmental Control Unit An A/C unit of excellent quality, designed and developed by the company by introducing advanced design concepts and manufacturing processes. According to the environmental requirements of animal and plant cultivation, it integrates ventilation, humidity, temperature, fresh air, carbon dioxide concentration, air purification, cultivation stage and time control. A edible mushroom air-handling unit, that comprehensively controls environmental factors in all aspects, is widely applicable to the entire production process of factory cultivation of rare edible mushrooms, such as Pleurotus eryngii, Hypsizygus marmoreus, Grifola frondosa, Flammulina velutipes, Auricularia auricula, etc.

This series of units has a compact structure. On the basis of GN or G4 filtration efficiency, the Company can design non-standard units with a filtration efficiency up to F6, and can also provide multifunctional air treatment such as deodorization, disinfection, sterilization and aromatization according to actual needs.



专注精密特种制冷  
创新环境环保空调

Focusing on precision special refrigeration, innovating environmentally friendly air conditioners

# PRODUCT FEATURES

## 产品特点



系统能够在各种气候下调节出菇房所需的空气温度、湿度、CO2浓度要求。  
The system can regulate the air temperature, humidity and CO2 concentration required in the mushroom cultivation room under various climates.



在低温季节, 不适合使用新风的栽培阶段, 该系统仍可进行降温, 满足工艺要求。  
During the cultivation stage in low-temperature seasons when fresh air is not suitable, the system can still perform cooling to meet process requirements.



变频线性控制技术, 压缩机在超宽变频范围0-120Hz内进行无级调节, 连续、自由地调节运转速度, 使空调系统工作能力调节更精准平滑, 结合自适应控制技术, 更加高精度。  
Applying the variable frequency linear control technology, the compressor can be adjusted steplessly within an ultra-wide frequency range of 0-120 Hz, continuously and freely regulating the operating speed, and making the adjustment of A/C system capacity more precise and smooth. Combined with adaptive control technology, it achieves higher precision.



高效节能, 安全可靠。利用空气作为冷热源, 降低运行成本, 高效、稳定、节能、环保、省心的设计理念, 机组性能稳定、运行经济。  
High efficiency, energy saving, safe and reliable. Utilizing air as the heat and cold source reduces operating costs. With the design concept of high efficiency, stability, energy saving, environmental protection and ease of use, the unit features stable performance and economical operation.



智能化控制, 故障诊断。空调机组用微电脑智能化控制, 具有故障诊断与报警功能, 便于操作和维护。  
Intelligent control, fault diagnosis. The A/C unit adopts microcomputer intelligent control with fault diagnosis and alarm functions, making it convenient for operation and maintenance.



控制方式, 机组均配有标准、通用、完全兼容型的线控器, 小巧的体积, 超大液晶文本显示屏, 全中文界面。预留集中群控接口远程干结点接口、火灾报警输入接口、故障接口, 可选装用于通讯控制的485端口。  
All units are equipped with standard, universal and fully compatible wire controllers, with compact size, super-large LCD text display screen and full-Chinese interface. Centralized group control interface, remote dry contact interface, fire alarm input interface and fault interface are reserved, and the 485 port for communication control is optional.



品质保证, 每台机组出厂前均经过严格检验测试, 使机组稳定、可靠, 用户只需要连接管道和控制、电源配线, 即可调试投入运行。  
Quality assurance: Each unit is strictly inspected and tested before leaving the factory to make the unit stable and reliable. It can be put into operation only when the user connects the pipes, as well as the control wiring and power supply wiring.



# PRODUCT MODEL SELECTION

## 产品选型



### 机组命名方法 UNIT NAMING METHOD

HKZZ - 30 H T A / BP

- 变频机型  
Frequency Converter Model
- 加湿功能  
Humidifying Function
- 加热功能  
Heating Function
- 热泵功能  
Heat Pump Function
- 名义制冷量:约30kW  
Nominal Cooling Capacity: about 30 kW
- HICON品牌智能种植方舱环境控制机组  
HICON Intelligent Planting Cabin Environmental Control Unit

请按照机组型号表示方法写出您需要的机组型号(成套时以内机表示)  
Please write out the unit model you need according to the unit model denotation method (expressed in the internal unit in case of a complete set)

### 智能控制系统 INTELLIGENT CONTROL SYSTEM

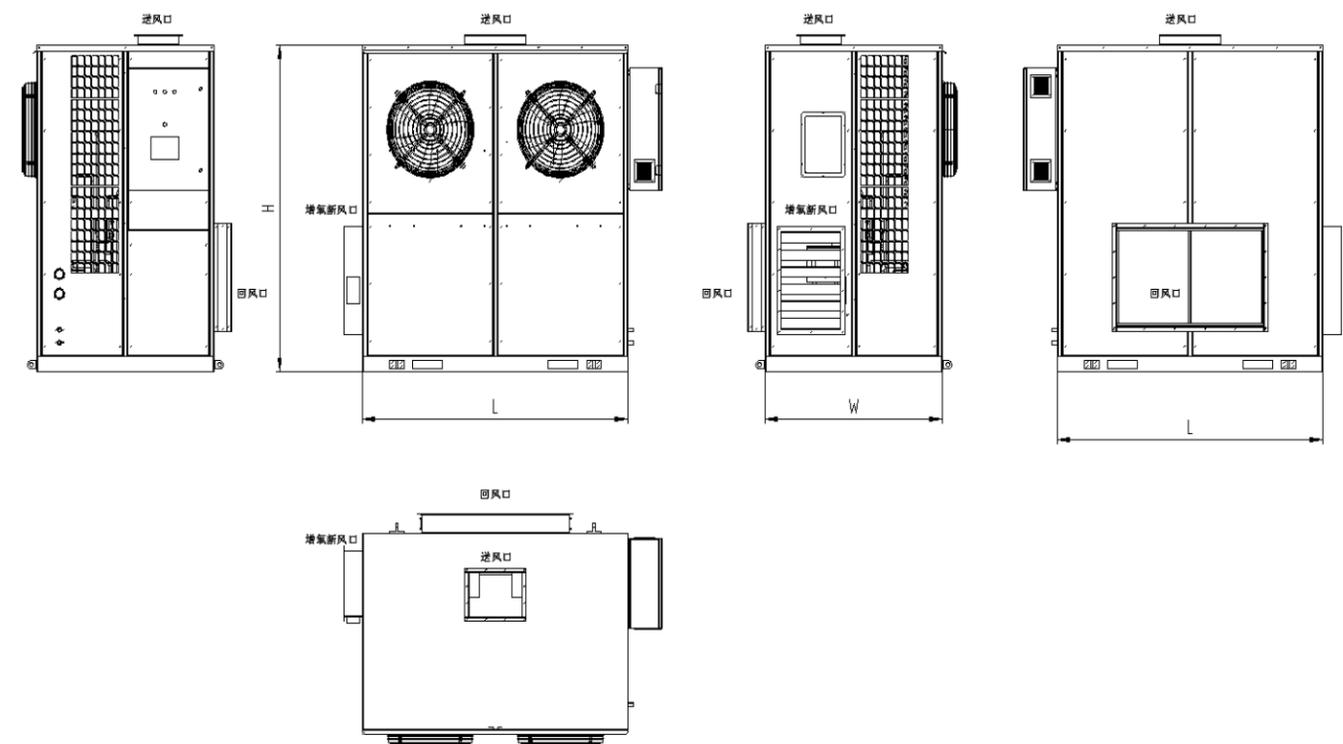
项目 Item	参数 Parameters		型号 Model	HKZZ-15 HTA/BP	HKZZ-30 HTA/BP	HKZZ-48 HTA/BP	HKZZ-65 HTA/BP	HKZZ-130 HTA/BP	
	机组特性 Unit characteristics	制冷量 Cooling capacity	kW		15	30	48	65	130
制热量(热泵) Heating Capacity (Heat Pump)		kW		15.8	31.5	50.4	68.3	136.5	
制热量(电加热) Heating Capacity (Electric Heating)		kW		6	12	18	24	48	
循环风量 Circulating air flow		m <sup>3</sup> /h		3000	5500	9500	12500	25500	
机外静压 External static pressure		Pa		150	250	300	350	500	
温控范围 Temperature Control Range		18°C ~ 28°C							
湿控范围 Humidity Control Range		50 ~ 85%RH							
能量调节范围 Energy regulation range		100 ~ 0							
建议使用面积 Recommended Use Area		m <sup>2</sup>		35	100	150	400	650	
电源 Power supply		3P-AC380V/50HZ							
运行功率 Operating Power		kW		5.6	11.2	17.9	24.3	48.5	
最大运行功率 Maximum operating power		kW		13.3	26.6	41.3	55.5	111.1	
室内机 Indoor unit		过滤效率 Filtration Efficiency		G4级初效 G4 Grade Primary Efficiency					
	增氧新风口 Oxygen-Enrichment Fresh Air Inlet		电动开闭 Electric Opening and Closing						
	蒸发器 Evaporator	类型 Type	铜管-铝鳍片式 Copper pipe - aluminum fin type						
		翅片形式 Fin form	亲水百叶窗型铝翅片 Hydrophilic shutter aluminium fins						
	迎风面积 Windward area	m <sup>2</sup>		0.35	0.64	1.10	1.45	2.95	
	制冷剂 Refrigerant	节流方式 Throttling mode	电子膨胀阀 Electronic expansion valve						
		冷媒型号 Refrigerant type	R410a						
	充注量 Filling volume	Kg		3.8	7.5	12.0	16.3	16.3x2	
	风机 Fan	类型 Type	低噪音离心风机 Low noise centrifugal fan						
		驱动方式 Drive mode	皮带轮驱动 Pulley Drive						
	控制方式(变频) Control Method (Frequency Converter)	变频 Frequency Converter							
	加湿器 Humidifier	类型 Type	超声波 Ultrasonic						
		加湿量 Humidifying Capacity	kg/h		5	5	8	13	23
电加热器 Electric heater	进水管径 Water Inlet Pipe Diameter	DN15							
	电加热类型 Electric Heating Type	PTC陶瓷 PTC ceramics							
功率 Power	kW		6	12	18	24	48		
配管尺寸 Piping size	排水管管径 Drain pipe diameter	DN25							
压缩机 Compressor	类型 Type	直流变频 DC Frequency Converter							
	数量 Qty.		1	1	1	1	2		
室外机 Outdoor unit	冷凝器类型 Condenser type		铜管铝翅片 Copper pipe aluminum fin						
	风机部分 Fan part	风机类型 Fan type	轴流风叶 Axial flow fan blade						
		风机型号 Fan model		RZLC550	RZLC550	RZLC650	RZLC750	RZLC6750	
		数量 Qty.		1	2	2	2	2	
	风量 Air flow	m <sup>3</sup> /h		7600	7600	9930	14360	14360	
	功率 Power	kW		0.37	1.1	0.55	1.1	1.1	
	外形尺寸 Overall dimensions	长 Length	mm		1550	1800	2200	2640	4800
宽 Width		mm		1200	1200	1300	1400	2200	
高 Height		mm		1800	2000	2280	2380	2200	
重量 Weight		kg		560	860	1060	1260	2460	
噪音 Noise	dB(A)		67	76	72	76	76		

注：  
1. 额定制冷量测试工况：室外干球/湿球35°C/24°C，室内干球/湿球23°C/17°C。  
2. 风机特性中机组静压，按给定的静压范围内50的整数倍进行选择。

Notes:  
1. Test conditions of rated cooling capacity: Outdoor dry bulb/wet bulb: 35°C/24°C, indoor dry bulb/wet bulb: 23°C/17°C.  
2. For the static pressure of the unit in fan characteristics, it shall be selected as an integer multiple of 50 within the given static pressure.

# OUTLINE DIMENSIONAL DRAWING

## 外形尺寸图



机组型号 Unit model	HKZZ-15HTA/BP	HKZZ-30HTA/BP	HKZZ-48HTA/BP	HKZZ-65HTA/BP	HKZZ-130HTA/BP
L(mm)	1550	1800	2200	2640	4800
W(mm)	1200	1200	1300	1400	2200
H(mm)	1800	2000	2280	2380	2200

# INSTRUCTIONS FOR ORDERING PRECAUTIONS

## 订货注意事项说明

- 1.** 机组“技术参数表”提供了机组设计性能参数表在标定工况下的制冷量、制热量,如果使用工况与标定工况不同,应按照“变工况性能修正系数”予以修正;  
The "Technical Parameter Table" of the unit provides the cooling capacity and heating capacity of the unit under the nominal conditions. If the operating conditions are different from the nominal conditions, they shall be corrected in accordance with the "Correction Factor of Variable Operating Conditions Performance";
- 2.** 机组空调系统的风管阻力应和机外静压相匹配,订货请参照“技术参数表”进行合理选择,并必须在机组型号后面加予注明;如有机外静压值超出“技术参数表”要求范围外,可以根据具体要求定制;  
The duct resistance of the unit air conditioning system shall be matched to the external static pressure. For ordering, please refer to the "Technical Parameter Table" to make a reasonable choice, and it must be indicated after the unit model; if the value of external static pressure is beyond the range of the "Technical Parameter Table", it can be customized according to specific requirements;
- 3.** 压缩机标准默认配置为知名品牌海立/大金/松洋涡旋压缩机,如需要谷轮压缩机配置,请订单中给予注明;如需要请与公司联系,订货请予注明;  
The standard default configuration of the compressor is the well-known brand HIGHLY/Daikin/Pansoarc scroll compressor. If a Copeland compressor is needed, please indicate it in the order. If necessary, please contact the Company and indicate when placing the order;
- 4.** 机组控制方式,机组采用先进微电脑单片机控制,如需要其他形式控制方式请与公司联系,订货请予注明;控制器(操作器)的连接线标准配置为3M,如需要更长,订货请予注明。  
Unit control mode: the unit is controlled by an advanced single chip microcomputer. If other control modes are needed, please contact the Company and indicate when placing the order. The standard configuration of the connecting wire of controller (manipulator) is 3m. If a longer connecting wire is needed, please indicate when placing the order;
- 5.** 机组过滤网标准配置为黑色双层尼龙过滤网,本公司可以提供其他过滤型式机组,若需要请与公司联系,订货请予注明;  
The standard configuration of the filter screen of the unit is a black double-layer nylon filter screen. We can provide other filter types. If necessary, please contact the Company and indicate when placing the order;
- 6.** 机组出厂时自带标准配置制冷剂,机组不带铜管连接管,保温管和连接线,如需要我司购买的话,请在合同中注明长度。  
The unit comes with standard refrigerant when leaving the factory, but without copper pipe connecting pipe, thermal insulation pipe and connecting wire. If you need us to buy them, please indicate the length in the contract.
- 7.** 如需预制机组基础,请参照机组基础图里面有关说明进行制作;室内外机安装请遵循相关规定,预留空间和检修空间,请参照机组外形图里面有关尺寸规定。  
If you need to prefabricate the unit foundation, please refer to relevant instructions in the unit foundation drawing. Please follow relevant regulations to install indoor and outdoor units. Please refer to relevant size regulations in the unit outline drawing to reserve space and maintenance space.
- 8.** 为了使机组能够更好的为您服务,请您在订货时注明机组的使用场所和使用季节,我们将有机会为您提供更为稳定可靠的控制系统;  
To make the unit serve you better, please indicate the place and season of use of the unit before ordering. We will have the opportunity to provide you with a more stable and reliable control system;
- 9.** 本公司产品在安装调试时,可向公司或各地分公司提出技术支持;  
Technical support can be requested from the Company or local branch when our products are installed and commissioned;
- 10.** 本公司遵循不断完善产品的原则,对产品规格、性能、材料的部分改进或许难以通知阁下,敬请谅解。请与我公司保持联系以索取最新资料。  
We follow the principle of continuous improvement of our products, and it may be difficult to inform you of some improvements in product specifications, performance and materials. Sorry for the inconvenience. Please keep in touch with us for the latest information.