



HIMOD series



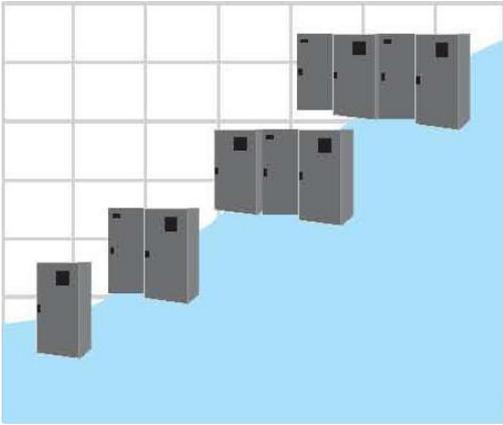


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Features of HIMOD series (HIMOD 产品特点) :



Flexibility:

HIMOD series is designed as the modular with uniform appearance and is also supported the module combination. A variety of models can be selected by customers, and is suitable for various conditions. A wide range of optional accessories is used to adapt the variety of environmental requirements. Each unit has adjustable speed fan, using a combination of without considering the pressure problems. 灵活性:

灵活性:

模块化设计，外观更美观、一致；模块间任意组合。多种型号可供选择，适用各种条件。多种可选附件，适应各种环境要求。每台机组标配可调速风扇，组合使用无需考虑均压问题。

High efficiency fan (高效风机)

The new impeller speed high efficiency fan with static pressure between 20Pa and 450Pa combines with the high pressure chamber with special design. Low noise can be achieved for the HIMOD series. 利用可变速新式叶轮高效风机，静压可在 20Pa~450Pa 之间调节，结合特殊设计的大静压室，使得 HIMOD 系列空调低噪音得以实现。



Energy saving (节能)

Due to the use of high efficiency fan and a scroll compressor, the power consumption for HIMOD series is greatly reduced (35% lower than traditional models). The operation and repair cost are low. HIMOD series is also supported different types of refrigerants (R22/R407c/R410a/R134a). 由于使用高效风机和涡旋式压缩机，使得 HIMOD 系列空调功耗大大降低（比传统空调低 35%），运行及维修费用低。HIMOD 系列也支援不同类型的制冷剂 (R22/R407c /R410a/R134a)。



Smart control

Each module consists of a new microcomputer controller (DDC-MICROFACE). Multi module unit can realize mutual linkage and program control without any additional devices. The HIROMATIC controller can realize the remote network.

智能化控制

每个模块均由新型微电脑控制器 (DDC-MICROFACE) 控制。多模块机组无需增加任何设备即可实现互相联动及程序控制，通过 HIROMATIC 控制器即可实现远程联网。

-   **Hirovisor 2000 software allows distance monitoring and tele-maintenance.**
-  **IP** **Communication over IP (HTTP,SNMP,TCP/IP)**
-   **Hirolink for BMSs represents the gateway to the most widespread Building Management Systems.**
-   **Hirolink SMM system SMS messages are sent whenever Microface Alarms take place; temperature and humidity status of the unit are always available on demand via SMS.**

Installation and repair easily

The mean time for maintenance is short and the unit is disassembly simple. Unit's side without reserved any extra space saves the space for installation. Humidification adopts detachable electrode humidifier with automatic washing function. The heater adopts third-grade electric heating. The air outlet is equipped with stable air flow device.

安装维修简单方便

完全全正面维护，部件拆卸且维修简单，非常短的平均故障修复时间。机组侧面无需预留空间以节省安装空间。加湿采用可拆式电极加湿且带自动冲洗功能，加热器采用三级电加热，出风口标配风流均流器。



Environmental protection

HIMOD series using recycled industrial materials plays a positive role in environmental protection. Sandwich type panel structure, the middle of flame retardant, heat insulation, and noise reduction material, provide the fire performance of A0 class.

环境保护

HIMOD 系列采用可循环使用的工业材料，对环境保护起着积极的作用。三明治夹层式面板结构，中间加阻燃隔热降噪材料，提供具有 A0 级防火性能。





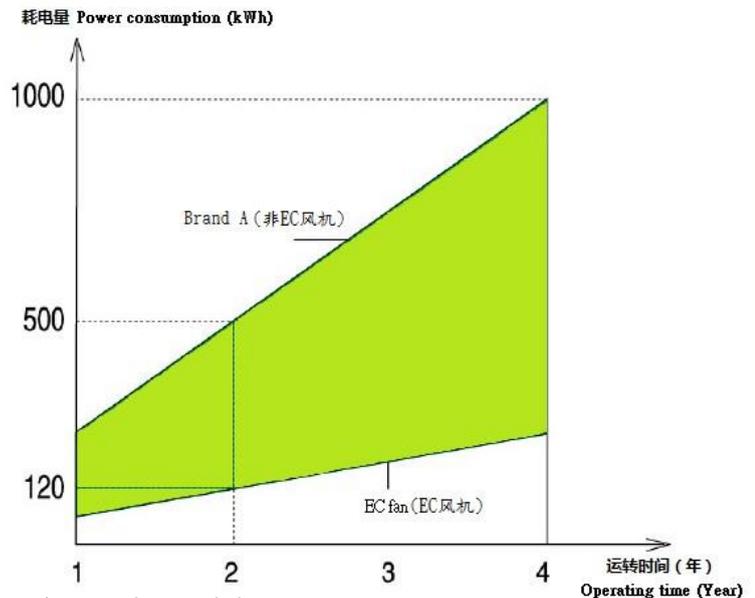
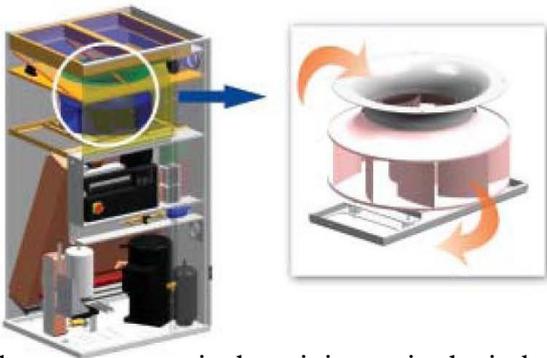
The performance ratio is as high as 3.88, and the operating cost is reduced 20%.
效能比高达 3.88，节能运行费用 20%

HIMOD S/M series

- HIMOD S/M series is designed for energy saving, compact, and low noise. Its performance is promoted to a new level of industrial standards.
 - Innovation of the diffuse type of ventilation obtains the optimal performance and decreases the investment for users and reduces the requirement for the height of the equipment room.
 - An insertion style fan, a large area of the evaporator, a scroll compressor, and an optimization of refrigeration system improve the energy performance significantly.
 - A way of air supply can be converted in the field.
 - Electronic speed fan (EC fan) makes the power consumption reduced by 35%.
 - Fan on top makes the air flow through the evaporator coil optimize for the bottom air supply model. Heat transfer efficiency (the ratio of the average value) is increased by 20%, and the noise of the unit is decreased.
- Right figure is showed the result of power consumption versus operating time for EC fan and non EC fan.

HIMOD S/M 系列

- HIMOD S/M 系列精密控制恒温恒湿机房空调的推出在节能性、紧凑性和低噪音性能方面将行业标准又推向了一个新的高度。
- 创新的弥漫式送风方式，获得最优性能的同时，节省用户投资，最大限度降低机房层高要求。
- 插入式风机、大面积蒸发器、涡旋式压缩机、优化的制冷系统使节能性能显著提高。
- 送风方式可现场转换。
- 电子调速风机 (EC 风机) 使风机功耗降低 35%。
- 置于上方的风机使下送风机型流过蒸发器盘管的气流得以优化，传热效率 (比业内的平均值) 提高 20%，并降低了整机的噪音。右图为 EC 风机与非 EC 风机运行耗电量比较。



- The space usage is the minimum in the industry.
- There is the small cooling model (4.5kW) for built-in top air supply model.
- Full front maintenance.
- Comprehensive configurations: conventional air-cooled, water-cooled, chilled water, double cold source, natural cooling, high precision (applicable to the temperature and humidity particularly high requirements of the occasion $\pm 0.5^{\circ}\text{C}$, $\pm 3\%$).
- 行业内最小的占地面积。
- 小冷量机型 (4.5kW) 的上送风风口内置。
- 全正面维护。
- 全面的机型配置：常规风冷式、水冷式、冷冻水型、双冷源型、自然冷却型、高精度型 (适用于特别高的温湿度要求的场合 $\pm 0.5^{\circ}\text{C}$, $\pm 3\%$)。





Adhering advantages of air conditioning for HIMOD Series

- Size uniform, centralization, and appearance consistent.
- Module combination of different capacity and size.
- Side by side or scattered layout.
- Each module can work independently and as part of the module group and no common point of failure.
- Hot backup and automatic fault switching.
- Cascade model and more reasonable load response.
- CAD modular design of electric control parts.
- Full front maintenance and the latest opened engineer maintaining window.

秉承 HIMOD 系列模块化机房用空调的全部优点

- 外型尺寸统一，集中摆放美观一致。
- 不同容量、大小的模块任意组合。
- 既可以并排集中设置，又可以分散布置。
- 每个模块可以单独工作又可以作为模块组的一部分，无公共故障点。
- 热备份，故障自动切换。
- 级联模式，负荷响应更加合理。
- 电控部件 CAD 模块化设计。
- 全正面维护，开设计最新全开放工程师维护窗口。

The following location is required more precise control for temperature and humidity.

- Measurement Laboratory
- Chemical Laboratory
- Microelectronics industry
- Textile industry
- Paper industry
- Tobacco industry
- Aviation and aerospace

The control precision is very high:

Temperature: $\pm 0.5^{\circ}\text{C}$ / Humidity: $\pm 3\%$

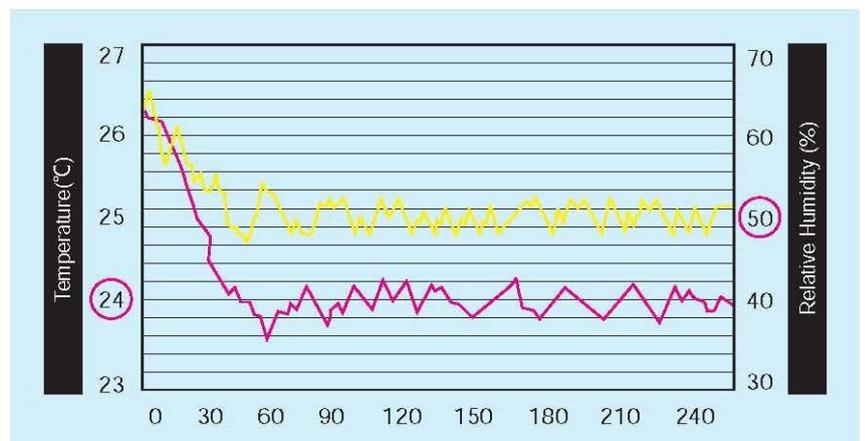
针对需要严格控制温度和湿度的场合

- 测量实验室
- 化学实验室
- 微电子行业
- 纺织行业
- 纸张行业
- 烟草行业
- 航空、航天非常

高的控制精度:

温度: $\pm 0.5^{\circ}\text{C}$ / 湿度: $\pm 3\%$

High precision constant temperature and humidity control model (Type: S/MXXKA) 高精度恒温恒湿控制型(型号为 S/MXXKA)





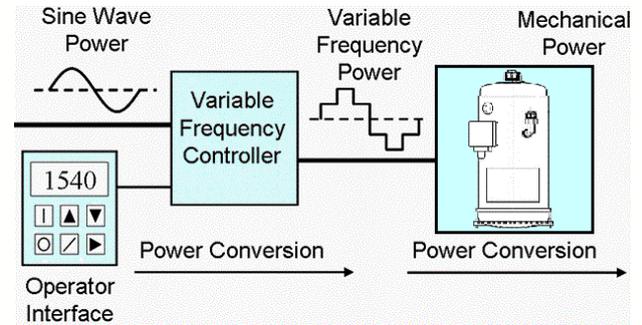
Variable speed compressor technology (变频压缩技术) :

Variable speed compressor technology brings to the HVAC industry whole new levels of efficiency, comfort, reliability and versatility. The major change happening now is the adoption of variable speed technology to compressors in ducted style systems. Compared to conventional systems, energy savings with a variable speed drive (VSD) compressor can exceed 20%. That's because traditional commercial air conditioning systems are designed for efficient operation at peak load conditions, so systems are actually oversized about 85% of the time or more. Consequently at partial load conditions, the systems deliver excess capacity, with significant and costly energy waste. Variable speed systems work by connecting a motor control drive to the compressor and then connecting the line input power from the utility to the drive. The drive uses frequency modulation to adjust power output of the compressor motor enabling it to speed up or slow down according to the heating or cooling load in the home. This ability to modulate compressor capacity enables many of the advantages of variable speed technology including improved efficiency and comfort. 变频压缩的技术为暖通空调行业带来全新的效率、舒适性、可靠性、和通用性。主要变化是采用了变速压缩技术应用在空调系统中。和常规空调系统相比，当与变速驱动装置（VSD）压缩技术同时使用，其节能可超过20%。这是因为传统的商用空调系统被设计在最大负荷条件下时的操作，因此系统实际上是约85%的时间或更多过大的使用。因此在部分负荷条件下，系统提供了过剩的产能，有显著和过多的能源浪费。变速系统的工作是通过连接一个电机控制驱动的压缩机，再连接到电源输入端。该驱动器使用频率调制，根据家中加热或冷却的负荷，调节功率输出使压缩机运转加快或减慢。这种调节压缩机容量的能力使得变速技术拥有众多的优势，包括提高效率和舒适度。

Variable speed drive advantages: (变频驱动优势)

- Superior technology (高级技术)
- Cost savings (节约成本)
- Production performance (生产性能)
- Environmental stewardship (环境管理)
- Smart Investment (聪明投资)

Variable speed compressor (变频压缩机)



Variable speed control (up figure) (变速控制 - 上图)

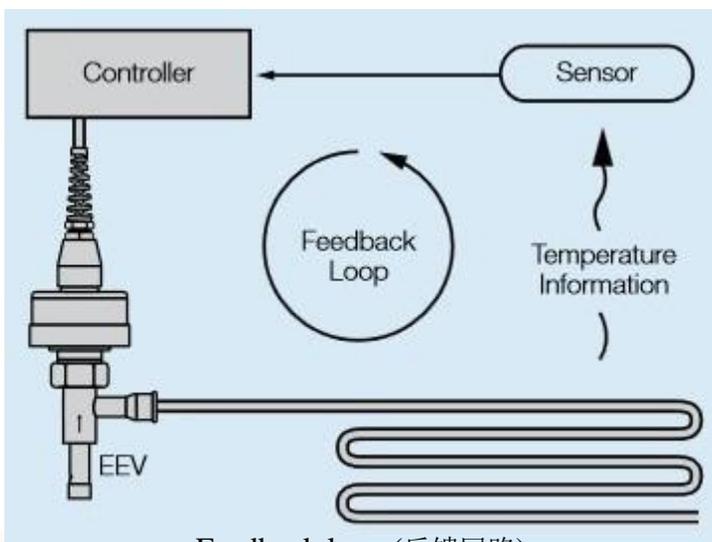
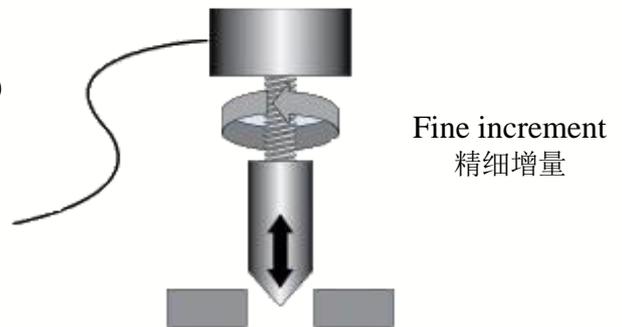


Electronic expansion valve technology (电子膨胀阀技术) :

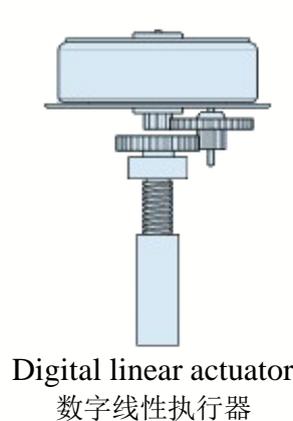
The electronic expansion valve (EEV) operates with a much more sophisticated design. EEVs control the flow of refrigerant entering a direct expansion evaporator. They do this in response to signals sent to them by an electronic controller. A small motor is used to open and close the valve port. The motor is called a step or stepper motor. Step motors do not rotate continuously. They are controlled by an electronic controller and rotate a fraction of a revolution for each signal sent to them by the electronic controller. The step motor is driven by a gear train, which positions a pin in a port in which refrigerant flows. Step motors can run at 200 steps per second and can return to their exact position very quickly. The controller remembers the number of step signals sent by the controller. This makes it possible for the controller to return the valve to any previous position at any time. This gives the valve very accurate control of refrigerant that flows through it. Most of these EEVs have 1,596 steps of control and each step is 0.0000783 inches. 电子膨胀阀 (EEV) 的运作有着更复杂的设计。电子膨胀阀控制制冷剂进入直接膨胀蒸发器的流动。这样做是在回应电子控制器发送给电子膨胀阀的信号。小型马达是用来打开和关闭阀门口。马达被称为步骤或步进电机。步进电机不是连续旋转。它们是由电子控制器来控制 and 转动，电子控制器发送的信号会使步进电机转动一小步。步进电机是由齿轮组带动，其尖端的部位于制冷剂流动的端口。步进电机可以以每秒 200 步运行，并且可以非常迅速地返回到原来的确切位置。控制器记住由控制器发送的信号数目，使得控制器返回到任何时间的位置。这使制冷剂流量通过电子膨胀阀可以非常精确的控制。大部分电子膨胀阀具有 1596 步的控制，而且每一步的距离都是 0.0000783 英寸。

Electronic expansion valve advantages: (电子膨胀阀优势)

- Compatibility tested with most CFC, HCFC, and HFC refrigerants and oils (与大多数 CFC, HCFC 和 HFC 制冷剂和润滑油兼容)
- Self lubricating materials used for long life (长寿命自润滑材料)
- Low power consumption - 4 watts or less (低功耗 - 4 瓦以内)
- Corrosion resistant materials used throughout (使用耐腐蚀材料)
- Step motor operated for precise control (步进电机精确控制)
- High resolution drive assembly (高分辨率驱动装置)
- Tight seating (步距紧)
- Field proven reliability (经实地验证具可靠性)
- Unique built-in sight glass available (独特的内置视镜)
- High linear force output (高线性力输出)



Feedback loop (反馈回路)



Digital linear actuator
数字线性执行器



Electronic expansion valve
电子膨胀阀



Diffuse type air supply (弥漫式送风) :

Cold air flows into under the floor and the air outlet is created on the floor near A/C. Cold air cools down the equipment. The location and quantity of air supply are required careful adjustment. For up outlet model, no matter with wind pipes and without wind pipes, cold air blows out and mixes with hot air. Then the mixing of warm air cools down the cabinet and equipment. 空调将冷空气送入地板下，在机架附近的地板上开送风口，冷空气由此送出来冷却设备。送风口的位置和数量需要仔细调整。对于上送风方式，不管是有风管和无风管，空调送出的冷空气式首先和最热的空气混合，混合后的温冷空气来冷却机柜和设备。

Diffuse type air supply (model: S/MXXDA) (弥漫式送风方式(型号为S/MXXDA)) :

Cold air blows out from the bottom and flows on top of the floor. Based on the principle of fluid mechanics, cold air is distributed in the middle and lower part of cabinet. The cabinet is formed around cold air as encirclement. Hot air rises and relies on the thermal flow in the room. Forced ventilation device of a computer or the cabinet completes the air circulation. Hot air is discharged by the top of cabinet. 冷空气由空调下部送出，在地板平面流动，依据流体力学原理，冷空气分布在机柜中部和下部，在机柜周围形成冷空气包围，空气受热后上升，在房间内依靠热动力流动。计算机或机柜本身的强制通风设备完成空气的循环，受热的空气由机柜上部排出。

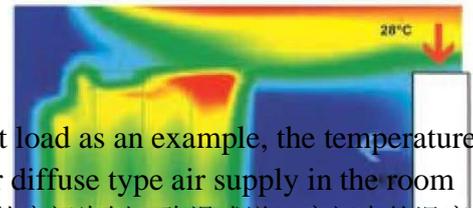
The air circulation of diffuse type air supply in equipment room

(弥漫式送风空气在机房内的循环方式) :

Relative to the bottom air supply model, diffuse type air supply does not require overhead floor, while the heat load per unit area can be increased by 10%, and reduces the height of room. The common room can be used as the equipment room. The cabinet is surrounded by cold air, relative to the bottom air supply model. Diffuse type air supply has better cooling effect for the cabinet. But for the top air supply model, diffuse type air supply does not need the wind pipe, so as to prevent the occurrence of the humidity in the room is not uniform, and can save energy by 10%~20% and reduce the demand of cooling capacity by 10%. 相对于下送风方式，弥漫式送风方式不需要架空地板，而单位面积的热负荷可提高10%，同时房间层高要求降低，普通房间都可作为机房使用。由于机柜被冷空气包围，相对于下送风方式，弥漫式送风方式下机柜的冷却效果更佳。而对于上送风方式，弥漫式送风方式不需要风管，避免了房间湿度不均匀的情况发生，同时可以节能10%~20%，降低空调制冷量需求10%。

The advantages for diffuse type air supply (弥漫式送风方式的优势) :

- The heat load per unit area is increased by 10%.
- The height of building is decreased.
- Save the installation fee.
- Save the operating cost.
- 单位面积热负荷提高10%。
- 降低机房建筑层高要求。
- 节省安装费用。
- 节省运行费用。



The 16kW heat load as an example, the temperature distribution for diffuse type air supply in the room
以16kW热负荷的房间为例，弥漫式送风房间内的温度分布



Bottom air supply
常规地板下送风方式



Top air supply (no wind pipe)
常规无风管上送风方式



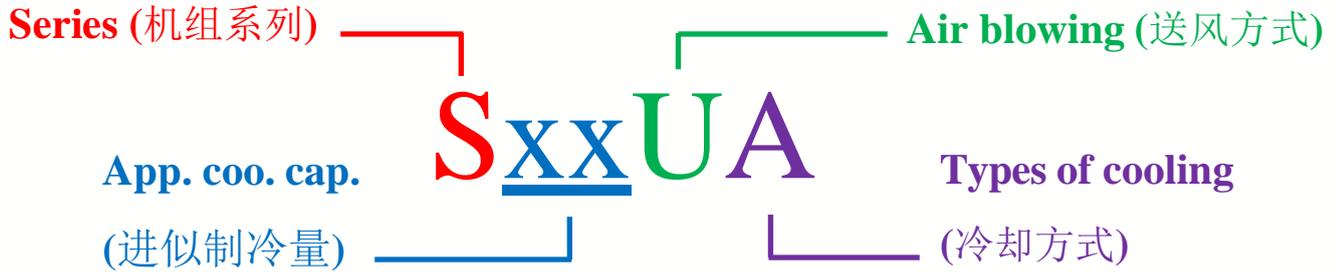
Top air supply (with wind pipe)
常规风管上送风方式



Air circulation of diffuse type air supply
弥漫式送风空气在机房内的循环方式



Product type (产品型号) :



I.

The first letter represents the HIROSS's model. They are S, E, M, Q, W, V, I, L, and P series.
第一个英文字母表示 HIROSS 机组系列，分别为 S、E、M、Q、W、V、I、L 及 P 系列。

I: integrated machine series (一体机系列); V: evaporator (蒸发式系列); W: ceiling unit (吊顶式系列)

II.

The xx represents the approximate cooling capacity.
xx 英文字母表示进似的制冷量，以数字表示。

III.

The third letter represents the way of wind blowing. By using the letter to describe the different way of wind blowing is shown as following: 第三个英文字母表示不同送风方式，不同送风方式分别用不同英文字母表示，定义如下：

U – outlet (bottom); O – outlet (top); D – outlet (exchanging); G – outlet (gate); K – outlet (high accuracy); T – other purposes.

U – 下送风; O – 上送风; D – 置换送风; G – 格栅送风; K – 高精度型; T – 其他配置

IV.

The last letter represents the way of cooling. By using the letter to describe the way of cooling is shown as following:

第四个英文字母表示不同冷却方式，不同冷却方式分别用不同英文字母表示，定义如下：

A – air cooling 风冷; W – water cooling 水冷; D – air cooled dual-fluid 风冷双冷源; C – chilled water 冷冻水; E – free cooling 自由冷却; K – water cooled dual-fluid 水冷双冷源

Example: A customer makes a request for the cooling unit. The required specification is described as following: If S series is the best solution, the model can use the letter of "S" based on I to represent it. The cooling capacity is 2.6kW. The xx letter can use the number, "03" based on II, to represent it. The wind blowing is out from the side and in form the side. The wind blowing can use the letter of "U" based on III to represent it. The way of cooling is used the water to cool down the wine cellar. The way of cooling can use the letter of "W" based on IV to represent it. Finally, the model of HIROSS unit will use the letter, "S03UW", to represent it. 例如：依客户提出的要求。所要求的规格如下：如果 S 系列是最好的解决方案，可以用英文字母 "S" 代表它，依照 I 的规则。若冷却能力为 2.6KW。XX 可以使用数字 "03" 表示进似的制冷量，基于 II 的规则。送风方式若是下送风。送风方式可以使用英文字母 "U" 表示，基于 III 的规则。冷却的方式是使用水来冷却机房。因此冷却的方式可以使用英文字母 "W" 代表它，基于 IV 的规则。最后，此 HIROSS 机型的表示方式为 "S03UW"。



Specifications for HIMOD S series (HIMOD S 系列规格): Direct expansion air cooling (直接膨胀风冷型):

U/O/D/G/K/LAW		S03	S04	S05	S06	S07	S10	S12	S13	S16
Wind rate (风量)	m ³ /h	1050	1350	1550	2100	2300	2800	3000	4600	4800
Total cooling cap. (总冷量)	kW	2.7	4.4	5.5	6.1	8.1	10.4	13.4	14.3	16
Humidity cap. (显冷量)	kW	2.6	4.3	5.2	5.7	7.6	10.0	12.5	13.7	15.2
Hud. Heat ratio (显热比)		0.91	0.93	0.94	0.95	0.96	0.96	0.96	0.96	0.96
Efficiency (效能比)		3.92	3.93	3.87	3.88	3.88	3.91	3.87	3.88	3.87
Max. pre. (below) (最大静压-下送风)	Pa	120	200	170	240	240	130	180	280	250
Max. pre. (above) (最大静压-上送风)	Pa	120	250	180	240	240	130	180	280	250
Noise (below) (下送风)	dB(A)	42.5	45.5	45.0	46.3	47.3	48.2	50.5	49.0	49.1
Noise (above) (上送风)	dB(A)	42.9	45.9	47.4	50.0	50.1	51.3	53.5	51.4	51.4
Electrode (电加热)	kW	1.95	1.95	1.95	4.5	4.5	4.5	4.5	5.85	5.85
Electrode grade (电加热级数)		3	3	3	3	3	3	3	3	3
Humidity (加湿量)	kg/h	2	2	2	4.5	4.5	4.5	4.5	9.0	9.0
Power of hum. (加湿功率)	kW	1	1.5	1.5	3.0	3.0	3.0	3.0	5.8	5.8
Temperature accuracy (温度控制精度)	°C	+/- 0.5到1								
Humidify accuracy (湿度控制精度)	%	+/- 3到5								
Total power (最大总耗电量)	kW	3	3.3	3.6	7.3	7.3	8.1	9.6	9.7	10.1

U/O/D/G/K/LAW		S17	S18	S20	S21	S23	S25	S29		
Wind rate (风量)	m ³ /h	5250	5400	5800	6100	6150	7000	7800		
Total cooling cap. (总冷量)	kW	16.9	18.4	20.1	22.6	25.6	26.4	29.1		
Humidity cap. (显冷量)	kW	16.1	17.4	19.1	21.4	24.1	25.8	28.2		
Hud. Heat ratio (显热比)		0.96	0.95	0.95	0.95	0.95	0.95	0.95		
Efficiency (效能比)		3.86	3.93	3.93	3.93	3.87	3.87	3.90		
Max. pre. (below) (最大静压-下送风)	Pa	220	280	400	250	270	260	280		
Max. pre. (above) (最大静压-上送风)	Pa	220	280	400	250	270	260	280		
Noise (below) (下送风)	dB(A)	49.2	50.5	51.5	53.9	54.4	55.2	57.1		
Noise (above) (上送风)	dB(A)	51.3	50.9	52.4	55.1	55.5	56.3	58.2		
Electrode (电加热)	kW	5.85	5.85	5.85	5.85	5.85	5.85	5.85		
Electrode grade (电加热级数)		3	3	3	3	3	3	3		
Humidity (加湿量)	kg/h	9.0	9.0	9.0	9.0	9.0	9.0	9.0		
Power of hum. (加湿功率)	kW	5.8	5.8	5.8	5.8	5.8	5.8	5.8		
Temperature accuracy (温度控制精度)	°C	+/- 0.5到1								
Humidify accuracy (湿度控制精度)	%	+/- 3到5								
Total power (最大总耗电量)	kW	10.9	11.6	12.4	14.2	14.9	15.8	16.7		

The electronic equipment in the communication room releases large quantity of sensible heat. The feature of HIMOD S series is to achieve high sensible heat ratio above 0.9, and is compared with ordinary comfort air conditioning energy saving up to 20-30%. Thus, it avoids the excessive dampness and foggy wind. 通讯机房内电子设备释放出大量的显热。HIMOD S 系列特点实现 0.9 以上的高显热比和相较于普通舒适型空调节省 20-30% 的能耗，并因此避免过度除湿和送风带雾的现象。



Water cooling (冷冻水型):

U/O/D/G C		S06	S08	S11	S15	S18	S29	S31
Wind rate (风量)	m ³ /h	1500	2520	3150	4980	5800	6550	7800
Max. pre. (below) (最大静压-下送风)	Pa	170	190	200	220	380	200	240
Max. pre. (above) (最大静压-上送风)	Pa	190	190	200	220	380	200	240
Total cooling cap. (总冷量)	kW	6.2	9.2	12.6	17.5	22.4	28.8	31.2
Humidity cap. (显冷量)	kW	5.6	8.5	11.2	16.7	20.3	25.0	28.8
Flow rate (冷却水流量)	l/s	0.30	0.44	0.60	0.83	1.07	1.38	1.52
Pressure (冷却水压降)	kPa	83	30	43	110	84	112	120
Noise (below) (下送风)	dB(A)	46.1	48.3	50.5	50.4	51.4	54.5	55.6
Noise (above) (上送风)	dB(A)	48.2	49.4	53.5	53.5	54.3	57.4	58.4
Electrode (电加热)	kW	1.95	4.5	4.5	5.85	5.85	5.85	5.85
Electrode grade (电加热级数)		3	3	3	3	3	3	3
Humidity (加湿量)	kg/h	2	4.5	4.5	9.0	9.0	9.0	9.0
Power of hum.(加湿功率)	kW	1.5	3.0	3.0	5.8	5.8	5.8	5.8
Total power (最大总耗电量)	kW	3.5	7.5	7.5	11.7	11.7	11.7	11.7

HIROSS pays attention to every detail for equipment, pays attention to design details including product maintenance, ensuring high reliability and friendly man-machine design. For example, all the crucial cooling circuit, temperature control valve, expansion valve, solenoid valve, mirror and drying filter tank, and all sets in the accessibility are full front maintenance.

HIROSS 公司非常重视设备的每一个细节，并注意到设计的方法，包括产品维护做到高可靠性和友好的人机设计。例如：全部至关紧要的冷却电路部分、温度调节阀、膨胀阀、电磁阀、视镜、和干燥过滤罐等，全部集合在易接近正前门的位置，真正做到全正面维护。

Free cooling (自然冷却型):

U/O/D F		S17	S20	S23	U/O/D DH		S17	S20	S23
Wind rate (风量)	m ³ /h	5250	5800	6150			5250	5800	6150
Max. pre. (below) (最大静压-下送风)	Pa	210	300	250			190	300	235
Max. pre. (above) (最大静压-上送风)	Pa	230	300	270			220	300	220
Total cooling cap. (总冷量)	kW	15.8	18.7	22.9			16.9	19.8	24.5
Humidity cap. (显冷量)	kW	15.0	17.4	20.4			15.4	17.8	22.0
Hud. Heat ratio (显冷比)		0.95	0.93	0.89			0.91	0.90	0.90
Efficiency (效能比)		3.44	3.31	3.16			2.44	2.31	2.16
Temp. (零能耗温度)	°C	3.5	3.5	3.5	2nd cap. (第二冷源冷量)	kW	12.2	16.7	18.2
Noise (below) (下送风)	dB(A)	51.2	51.7	53.9			51.2	51.7	53.9
Noise (above) (上送风)	dB(A)	52.2	51.8	54.6			52.2	51.8	54.6
Total power (最大总耗电量)	kW	10.1	12.4	14.9			10.1	12.4	14.9

Remote control panel can be installed to the main control panel outside the unit which can display all control functions.

远程监控面板可安装在主机之外的监控面板上且能完成机组主控制板的显示及所有控制功能。



S series was developed by HIROSS in 1997 which is modularized type of air conditioner using the new technology and new process, given the new concept of air conditioner from the aspects of environmental space adaptability, high efficiency, energy saving, economy, noise reduction, and environmental protection. Cooling capacity is from 4 to 30 kW. The direction of air supply can be changed in the field. The controller for S series comes with the password protection, expert fault diagnosis function, phase sequence detection function, and the call for the start.

HIMOD S 系列是公司 1997 年开发的模块式专用空调，采用了许多新技术和新工艺，从对机房环境空间的适应性、高效节能、经济性、降噪、和环境保护等方面赋予机房专用空调全新的概念。制冷量从 4 到 30 kW，下送风/上送风可在现场互相转换。S 系列具有密码保护、专家故障诊断功能、相序检测功能、和可实现来电自启动。

Size and weight (尺寸和重量)

Model (型号)	Length (长度)	Width (宽度)	Height (高度)	Weight (净重)
A/W/D/F/H	mm	mm	mm	kg
S02/S03	650	600	1750	140
S04	600	600	1750	160
S05	600	600	1750	170
S07	300/600	1100/600	2000/1750	195
S08	300/600	1100/600	2000/1750	205
S10	300/600	1100/600	2000/1750	210
S12	300/600	1100/600	2000/1750	215
S13	300/600	1100/600	2000/1750	240
S16	300/600	1100/600	2000/1750	245
S17	300/850	1100/750	2000/1850	250
S18	300/850	1100/750	2000/1850	255
S20	300/1000	1100/900	2000/1850	260
S21	300/1000	1100/900	2000/1850	265
S23	300/1000	1100/900	2000/1850	270
S25	300/1000	1100/900	2000/1850	280
S29	300/1000	1100/900	2000/1850	290
C				
S06	650	450	1800	135
S08	700	600	1800	150
S11	700	600	1800	165
S15	700	600	1800	190
S18	700	600	1800	210
S29	1200	800	1800	230
S31	1320	860	1800	260



The function for the graphical controller includes the advanced intelligent control technology, user-friendly interface, microcomputer control system, multilevel password protection, prevention of the missed operation, operation status, and intelligent fault diagnosis expert system recording the main parts of the operating time. It has the automatic protection settings, even after the power failure can also save operational parameters and alarm records. HIMOD S series is highly reliable, wide range voltage designed, and calling of starting. With high and low voltage automatic monitoring and protection function is good for 365 days/year, 24 hours/day running time. 图形控制器包含先进的智能化控制技术、易操作的人性化界面、精确的微电脑控制系统、多级密码保护、防止误操作、具备运行状态智能显示、专家故障诊断功能、并记录各主要部件的运行时间。设置参数自动保护，即使停电后也可以保存运行参数和警告记录。HIMOD S 系列具高可靠性、超宽输入电压设计、和来电启动功能。高低压自动监测和保护功能使产品按照每年 365 天、每天 24 小时运行长寿命设计。

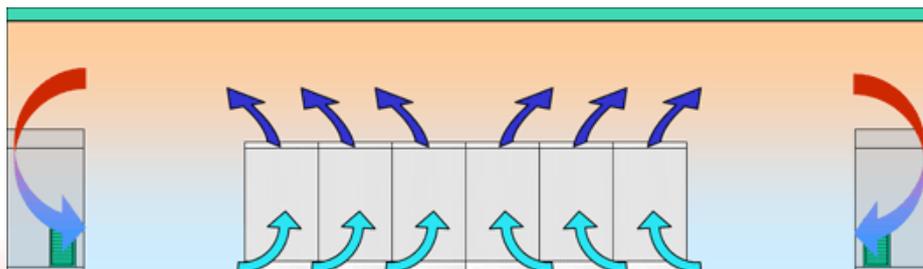


Specifications for HIMOD M series (HIMOD M 系列规格):

Direct expansion air cooling/water cooling - AW (直接膨胀风冷、水冷型 - A/W):							
Air flow: below, above (送风方式: 下送风、上送风)							
Model (型号)		M25	M29	M32	M34	M35	M41
Characteristics (性能)							
Total cooling cap. (总冷量)	kW	26.5	30.7	33.3	36.2	37.0	41.8
Humidity cap. (显冷量)	kW	25.2	29.3	32.5	35.1	36.1	40.4
Hum. Heat ratio (显热比)		0.91	0.92	0.97	0.94	0.95	0.95
EER (效能比)		3.88	3.85	3.91	3.92	3.88	3.93
Compressor Q. (压缩机数量)	n	1	1	1	2	1	1
Compressor power (压缩机功率)	kW	5.89	6.96	6.94	2x3.82	7.96	10.0
Fan Q. (风机数量)	n	1	1	1	1	1	1
Fan input power (风机输入功率)	kW	1.0	1.05	1.5	1.9	1.95	2x0.81
Wind rate (风量)	m ³ /h	7100	8300	10040	11140	11220	13000
Max. Pressure (最大风压-上/下风送)	Pa	380	280	420	350	340	380
Noise (噪音-下送风)	dB(A)	53	55	58	61	61	58
Humidity (加湿量)	kg/h	9	9	13	13	13	13
Power of hum. (加湿功率)	kW	5.8	5.8	9	9	9	9
Heating power (加热功率)	kW	7.5	7.5	15	15	15	15
Tube (气/液管径)	mm	22/18	22/18	22/18	16/16	28/22	28/22
标准水冷型 - W (进水温度 30℃, 出水温度 45℃) standard water-cooling type - W (inlet water temperature of 30 °C, outlet water temperature of 45 °C)							
Water flow (水流量)	l/s	0.64	0.71	0.74	2x0.43	0.87	1.08
Pressure (水端压降)	kPa	19	12	13	12	13	12
Pipe (水管管径)	inch	1"	1"	1 1/4"	2x3/4"	1 1/4"	1 1/4"
Max. power consumption (最大耗电量)	kW	14.9	16.3	23.0	21.2	25	28
Length (长度)	mm	1000	1000	1000	1000	1600	1600
Width (宽度)	mm	950	950	950	950	950	950
Height (高度)	mm	1950	1950	1950	1950	1950	1950
Weight (净重)	kg	425	430	575	590	580	600

M series was launched in 2005. It has all of the advantages of HIROSS modular air-conditioning. It is equipped with high precision temperature control with diffuse type air supply.

公司于 2005 年推出全新的 HIMOD M 系列, 秉承 HIROSS 模块化机房专用空调的全部优点, M 系列配有高精度恒温控制与弥漫式送风。



Diffuse type air circulation in equipment room (弥漫式送风空气在机房的循环方式)



Specifications for HIMOD M series (HIMOD M 系列规格):

Direct expansion air cooling/water cooling - AW (直接膨胀风冷、水冷型 - A/W):								
Air flow: below, above (送风方式: 下送风、上送风)								
Model (型号)		M42	M47	M50	M58	M66	L83U	L99U
Characteristics (性能)								
Total cooling cap. (总冷量)	kW	42.8	53.7	55	56.1	70.3	83	104.6
Humidity cap. (显冷量)	kW	41.8	52.0	54.2	55.3	68.9	80.5	100.2
Hum. Heat ratio (显热比)		0.97	0.91	0.95	0.97	0.98	0.92	0.92
EER (效能比)		3.93	3.90	3.89	3.90	3.92	3.91	3.88
Compressor Q. (压缩机数量)	n	1	1/2	2	2	2	2	2
Compressor power (压缩机功率)	kW	2x4.39	12.1	2x5.9	2x6.96	2x7.98	2x9.0	2x11.2
Fan Q.(风机数量)	n	1	2	2	2	2	2	2
Fan input power (风机输入功率)	kW	2x0.85	2x0.87	2x0.89	2x0.9	2x0.95	2x1.5	2x2.0
Wind rate (风量)	m ³ /h	12530	13550	13540	14580	15470	21520	24000
Max. Pressure (最大风压-上/下风送)	Pa	390	300	300	250	180	200	120
Noise (噪音-下送风)	dB(A)	58	60	59	61	63	64.9	66.3
Humidity (加湿量)	kg/h	13	13	13	13	13	13	13
Power of hum.(加湿功率)	kW	9	9	9	9	9	9	9
Heating power (加热功率)	kW	15	15	15	15	15	22.5	22.5
Tube (气/液管径)	mm	22/18	28/22	22/18	22/18	28/22	28/22	28/22
标准水冷型 - W (进水温度 30℃, 出水温度 45℃) standard water-cooling type - W (inlet water temperature of 30 °C, outlet water temperature of 45 °C)								
Water flow (水流量)	l/s	2x0.51	1.28	2x0.66	2x0.72	2x0.84	2x1.12	2x1.35
Pressure (水端压降)	kPa	12	13	20	12	12	10	11
Pipe (水管管径)	inch	2 3/4"	1 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"	2 1/4"
Max. power consumption (最大耗电量)	kW	22.4	30.5	24.4	25.8	27.2	37	39.7
Length (长度)	mm	1600	1600	1600	1700	2080	2080	2700
Width (宽度)	mm	950	50	950	950	950	950	950
Height (高度)	mm	1950	1950	1950	1950	1950	1950	1950
Weight (净重)	Kg	600	620	635	650	670	950	1000

The large surface area of evaporator coil improves the efficiency of units to ensure the effect of energy saving. The "V" structure of coil can make refrigeration system cycle match the refrigeration load. The air flow through the coil surface is smooth, and the "V" structure of coil also reduces the noise. When dehumidification, turn off the coil that only uses the part of 2/3. 65% of energy is used for dehumidification and it can effectively remove the moisture, greatly reduce the chance for reheating, and obviously provide the effect of energy saving. 超大表面积的蒸发器盘管, 蒸发器材质为铜管翅片材质, 提高机组效率确保节能。采用“/型”或“V型”结构盘管可使制冷系统的循环与制冷负荷相匹配, 通过盘管表面的气流更加平稳, 最大限度的降低机组噪声。除湿时, 关掉部分盘管, 只利用 2/3 的部分, 将 65% 的能量用于除湿, 更能有效地去掉湿气, 大大减少再热器的启动, 节能效果显著。

Flexible installation is suitable for all occasions. Modular design is adapted to the special ground handling, it can be applied in the field of professional disassembly, and it can go through the narrow stairs, corridor, and elevator. 安装方式灵活多样, 适合各种场合。模块化设计适应特殊场地搬运, 可在现场拆装, 以便通过狭窄的楼梯、楼道、电梯。



Specifications for HIMOD M series (HIMOD M 系列规格):

Frozen Water (冷冻水型):										
Model (型号)		M31	M42	M44	M52	M55	M65	M66	M72	M77
Characteristics (性能)										
Total cooling cap. (总冷量)	kW	31.2	42.1	43.6	51.8	58.6	65.4	68.8	71.8	83.5
Humidity cap. (显冷量)	kW	29.3	39.7	41.9	49.5	56.7	63.1	66.4	69.7	80.1
Hum. Heat ratio (显热比)		0.81	0.80	0.80	0.82	0.85	0.81	0.82	0.79	0.78
Fan Q.(风机数量)	n	1	1	1	2	2	2	2	2	2
Wind rate (风量)	m ³ /h	7800	8600	8650	13000	13740	15000	15370	15500	15950
Max. Pressure (最大风压-上/下风送)	Pa	150	170	170	170	340	245	245	170	170
Noise (噪音-下送风)	dB(A)	54.1	55	55	56	58	61	60	61.1	62
Water flow (水流量)	l/s	1.78	2.01	2.08	2.69	2.79	3.23	3.28	3.81	3.99
Pressure (水端压降)	kPa	81	89	91	90	89	67	65	80	81
Pipe (水管管径)	inch	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Length (长度)	mm	1320	1500	1500	1850	1850	1850	1850	2200	2200
Width (宽度)	mm	800	800	800	850	850	850	850	950	950
Weight (净重)	kg	280	320	330	440	480	540	550	580	600

Frozen Water (冷冻水型):										
Model (型号)		L90U	L10U	L12U	L14U	L15U				
Characteristics (性能)										
Total cooling cap. (总冷量)	kW	90.7	103.4	117.9	142.8	158.9				
Humidity cap. (显冷量)	kW	88.8	98.9	110.9	139.7	151.5				
Hum. Heat ratio (显热比)		0.85	0.81	0.83	0.78	0.76				
Fan Q.(风机数量)	n	2	2	3	3	3				
Wind rate (风量)	m ³ /h	19060	20400	23100	25100	26070				
Max. Pressure (最大风压-上/下风送)	Pa	330	310	290	250	250				
Noise (噪音-下送风)	dB(A)	58.7	61	62.1	62.1	63.8				
Water flow (水流量)	l/s	4.33	4.93	5.62	6.81	7.58				
Pressure (水端压降)	kPa	75	79	104	80	80				
Pipe (水管管径)	inch	2"	2"	2 1/2"	2 1/2"	2 1/2"				
Length (长度)	mm	2200	2300	2550	2550	2550				
Width (宽度)	mm	950	1080	1080	1080	1080				
Weight (净重)	kg	620	610	740	800	810				

The floor bracket height is adjustable to make HIMOD series and movable floor in equipment room becoming one. With the use of frozen water units and natural cooling system will have the obvious effect for energy saving.

高度可调整的地板支架，可以使 HIMOD 系列模块机组与机房的活动地板成为一体。冷冻水机组与自然冷却系统配合使用，会有显著的节能效果。



Specifications for HIMOD M series (HIMOD M 系列规格):

Free cooling – F (自然冷却型 – F):											
Air flow: below, above (送风方式: 下送风、上送风)											
Model (型号)		M25	M32	M34	M35	M41	M42	M47	M50	M58	L83U
Characteristics (性能)											
Total cooling cap. (总冷量)	kW	25.7	33.3	34.4	35.7	41.0	42.1	51.6	51.7	57.1	75.8
Humidity cap. (显冷量)	kW	22.7	32.5	32.1	32.8	40.2	41.5	45.6	44.9	48.5	68.9
Hum. Heat ratio (显热比)		0.88	0.93	0.93	0.92	0.91	0.92	0.88	0.87	0.85	0.91
Fan Q.(风机数量)	n	1	2	2	1	2	2	2	2	2	2
Wind rate (风量)	m ³ /h	7100	10040	11140	11220	12470	12530	13550	13540	14580	19010
Max. Pressure (最大风压-上/下风送)	Pa	270	320	250	200	330	330	250	250	190	200
Noise (噪音-下送风)	dB(A)	54	59	59	60	59	59	62	60	62	65.7
Length (长度)	mm	1200	1200	1200	1200	1200	1500	1500	1850	1850	2200
Width (宽度)	mm	800	800	800	800	800	800	800	850	850	950
Weight (净重)	kg	510	715	725	720	730	745	740	755	770	1140

Dual fluid air cooling/water cooling – D/H (双冷源风冷、水冷型 – D/H):											
Air flow: below, above (送风方式: 下送风、上送风)											
Model (型号)		M25	M32	M34	M35	M41	M42	M47	M50	M58	L83U
Characteristics (性能)											
Total cooling cap. (总冷量)	kW	25.7	33.3	34.4	35.7	41.0	42.1	51.6	51.7	57.1	81.0
Humidity cap. (显冷量)	kW	22.7	32.5	32.1	32.8	40.2	41.5	47.0	47.5	51.5	71.1
Hum. Heat ratio (显热比)		0.88	0.93	0.93	0.92	0.91	0.92	0.91	0.92	0.90	0.88
EER (效能比)		3.31	3.29	3.30	3.26	3.28	3.36	3.25	3.33	3.16	3.11
Characteristic of water cooling (水冷性能)											
Total cooling cap. (总冷量)	kW	29.3	44.6	47.0	48.1	56.3	56.8	60.1	60.1	62.5	83.7
Humidity cap. (湿冷量)	kW	24.8	37.4	39.9	40.7	46.1	46.3	49.6	49.6	51.9	72.3
Hum. Heat ratio (湿冷比)		0.85	0.84	0.85	0.85	0.82	0.83	0.83	0.83	0.83	0.86
Compressor Q.(压缩机数量)	n	1	1	2	1	1	2	1	2	2	2
Fan Q.(风机数量)	n	1	2	2	1	2	2	2	2	2	2
Wind rate (风量)	m ³ /h	7100	10040	11140	11220	12470	12530	13550	13540	14580	19010
Water flow (水流量)	l/s	0.64	0.74	2x0.43	0.87	1.08	2x0.51	1.28	2x0.66	2x0.72	2x0.72
Pressure (水端压降)	kPa	19	13	12	13	12	12	13	20	12	12
Pipe (水管管径)	inch	1"	1 1/4"	2 3/4"	1 1/4"	1 1/4"	2x 3/4"	1 1/4"	2x1 1/4"	2x 1 1/4"	2x 1 1/4"
Max. Pressure (最大风压)	Pa	270	320	250	200	330	330	250	250	190	200
Noise (噪音-下送风)	dB(A)	54	59	59	60	59	59	62	60	62	65.7
Weight (净重)	kg	510	715	725	720	730	745	740	755	770	1115

According to the situation in the room, the indoor unit of HIMOD series can be matched with different air supply hood. For bottom air supply, the unit can be connected with air inlet duct. For top air supply, top air supply hood can make air flow which is stable and uniform in the room.

根据机房现场的情况, HIMOD 系列室内机组可匹配不同的风帽, 在下送风机组中, 可安装回风风管道与机组相连接。在上送风系统中, 上送风风帽可使机房各个角落的气流稳定均匀。



Specifications for HIMOD M series (HIMOD M 系列规格):

Diffuse air flow (弥漫式送风):			
Model (型号)		M25	M29
Characteristics (性能)			
Total cooling cap. (总冷量)	kW	26.4	30.7
Humidity cap. (湿冷量)	kW	23.6	29.3
Hum. Heat ratio (湿热比)		0.89	0.90
EER (效能比)		3.56	3.39
Compressor Q. (压缩机数量)	n	1	1
Fan Q. (风机数量)	n	1	1
Wind rate (风量)	m ³ /h	6680	7470
Max. Pressure (最大风压-上/下风送)	Pa	0	0
Noise (噪音-下送风)	dB(A)	62	64
Length (长度)	mm	1200	1200
Width (宽度)	mm	800	800
Weight (净重)	kg	425	430



HIMOD network control has two ways. The standard model is used of the MICROFACE. Since each system is equipped with MICROFACE, using the HIROBUS control bus can be up to 16 machines together. MICROFACE has the functions as follows: (1) The temperature and humidity are controlled. (2) LCD displays the corresponding parameters. (3) The password protection prevents the change of parameters. (4) The standby machine rotates.

HIMOD 联网控制有两种方式，标准型采用 MICROFACE。由于系统中每台 HIMOD 都配有 MICROFACE，利用控制总线 HIROBUS 可将最多 16 台机器联在一起。MICROFACE 所具有的功能如下：(1) 温度和湿度控制。(2) 液晶屏显示相应参数。(3) 密码保护，以防止设定参数被更改。(4) 备用机轮换，由多台机器组成的系统中，一般有若干台是作为备用机。

All routine maintenances of HIMOD series can be accessed in front and all parts can be taken out easily. Air filter can also be replaced in front. Under the normal operation condition, the maintenance for the refrigeration system can be carried out. Because the design of HIMOD series is very flexible, it can be utilized in a variety of ways of cooling.

HIMOD 系列的所有日常维护工作都可以在机组的正面完成，所有的部件都可以从机组的正面取出来。空气过滤器可以从机组的正面进行更换。在机组正常运行的情况下，可以对制冷系统进行检修。由于 HIMOD 系列有非常灵活的设计，使其可以采用多种冷却方式。

HIROSS attaches great importance to environmental protection issues. Now, HIMOD series is used the refrigerant of R22 that is HCFC kind of refrigerant and the ozone damage index (ODP) value is very low. In addition, HIMOD series can also use R407C refrigerant -- now has been widely applied. In Europe, the new refrigeration equipment will not use R22 refrigerant after 2000. The air-conditioning system using new refrigerant can provide the same effect as R22 refrigerant. Need to pay attention to that the compression system using new refrigerant needs to replace the mineral oil with synthetic ester lubricant.

HIROSS 公司非常重视环境保护的问题。现在，HIMOD 系列标准型机组选用的是 R22 制冷剂，这是 HCFC 类制冷剂，其臭氧破坏指数 (ODP) 值非常低。此外，HIMOD 系列也可以选用 R407C、R410A 制冷剂——现在已经广泛地得到应用。在欧洲，公元 2000 年以后生产的新制冷设备中，将不再采用 R22 制冷剂，采用新型制冷剂的空调系统，可以提供与采用 R22 制冷剂相同的制冷功率。需注意的情况是，选用新型制冷剂的压缩系统，需使用合成酯类润滑剂替代矿物质油。

The compressor is mounted on the rubber shock absorber base that reduces noise and vibration. And its design is in the outside of the air stream. Flow channel is the curvature design that reduces the noise. 压缩机安装在橡皮胶避震底座上，减少噪音和震动。并将其设计在气流之外。气流通道曲线设计，以减少噪音。



Specifications for HIMOD Q series (HIMOD Q 系列规格):

Direct expansion air-cooling/water-cooling A/W (Air flow: above/below)									
直接膨胀风冷, 水冷型-A/W(送风方式: 上送风/下送风)									
Model (型号)		Q11	Q14	Q17	Q18	Q19	Q22	Q25U	Q29U
Characteristics (性能)									
Total cooling cap. (总冷量)	kW	40.1	45.1	60.2	65.2	69.8	79.7	90.8	106.1
Humidity cap. (显冷量)	kW	38.6	44.8	58.4	63.4	67.5	77.5	88.0	101.0
Hud. Heat ratio (显热比)		0.91	0.99	0.92	0.91	0.91	0.91	0.91	0.90
EER (效能比)		3.90	3.89	3.90	3.91	3.92	3.93	3.92	3.90
The cold air ratio(冷风比)	w/m ³ /	3.65	3.5	4.10	4.11	4.13	4.11	4.03	4.08
Compressor Q. (压缩机数量)	n	2	2	2	2	2	2	2	2
Input power (输入功率)	kW	7.6	8.8	11.8	12.8	13.8	15.8	17.1	21.6
Wind rate (风量)	m ³ /h	11000	12900	20000	21200	22300	24500	26000	29000
Max. Pressure (最大风压-上/下风送)	Pa	50 Max. to 450(最大可调整到 450)							
Fan input power (风机输入功率)	kW	1.9	2.0	2.24	2.24	2.4	3.0	3.2	3.5
Noise (噪音)	dB(A)	58	58	61	62	61	63	64	65
Humidity (加湿量)	kg/h	13	13	13	13	13	13	13	13
Power of hum.(加湿功率)	kW	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Heating power (加热功率)	kW	15	15	15	15	15	15	15	15
Temperature accuracy (温度控制精度)	°C	+/- 0.5到1							
Humidify accuracy (湿度控制精度)	%	+/- 3到5							
Length (长度)	mm	1600/930	1200//	1700	2080	2080	2080	2080	2700
Width (宽度)	mm	950/998	950	950	950	950	950	950	950
Height (高度)	mm	1950/1975	1950	1950	1950	1950	1950	1950	1950
Weight (重量)	kg	590	600	650	650	655	670	940	990





Specifications for HIMOD P series (HIMOD P 系列规格):

Direct expansion air-cooling/water-cooling A/W (Air flow: above/below)									
直接膨胀风冷, 水冷型-A/W(送风方式: 上送风/下送风)									
Model (型号)		P06	P07	P08	P09	P10	P11	P16	P17
Total cooling cap. (总冷量)	kW	21.5	27.9	30.2	32.8	35.7	39.2	50.0	58.5
Humidity cap. (显冷量)	kW	21.0	25.7	29.0	31.2	34.0	38.6	48.7	56.1
Hum. Heat ratio (显热比)		0.98	0.92	0.93	0.92	0.95	0.98	0.95	0.94
EER (效能比)		3.93	3.85	3.85	3.75	3.89	3.92	3.89	3.85
The cold air ratio(冷风比)	w/m ³ /h	3.58	4.16	3.78	3.38	3.43	3.56	3.35	3.98
Compressor Q. (压缩机数量)	n	1	1	1	1	1	1	2	2
Input power (输入功率)	kW	6.12	7.4	7.8	7.9	9.2	9.7	11	18.0
Wind rate (风量)	m ³ /h	6000	6700	8000	9700	10400	11000	15000	15700
Max. Pressure (最大风压-上/下风送)	Pa	50 Max. to 450(最大可调整到 450)							
Fan input power (风机输入功率)	kW	0.8	1.0	1.1	1.4	1.5	1.6	1.8	2.37
Noise (噪音-下送风)	dB(A)	54	55	57	59	59	63	65	65
Humidity (加湿量)	kg/h	9	9	9	9	13	13	13	13
Power of hum.(加湿功率)	kW	5.8	5.8	5.8	5.8	9.0	9.0	9.0	9.0
Heating power (加热功率)	kW	5.85	5.85	7.5	7.5	15	15	15	15
Temperature accuracy (温度控制精度)	°C	+/- 0.5到1							
Humidify accuracy (湿度控制精度)	%	+/- 3到5							
Length (长度)	mm	1000	1000	1000	1000	1000	1600	1600	1700
Width (宽度)	mm	950	950	950	950	950	950	950	950
Height (高度)	mm	1950	1950	1950	1950	1950	1950	1950	1950
Weight (重量)	kg	260	270	425	430	575	580	600	620

Features for HIMOD P series (HIMOD P 系列特性):

Flexibility -- Modular design, beautiful appearance and uniform are good for module combination.

High efficiency fan -- Using the variable impeller high efficiency fan, the static pressure can be adjusted in 20Pa ~ 450Pa. Combined with the high pressure chamber with special design achieves the low noise.

Energy saving -- Due to the use of high efficiency fan and a scroll compressor, the power consumption of P series is greatly reduced (35% lower than traditional models), so as the operation and repair cost.

Intelligent -- Each module control consists of a new microcomputer controller (DDC-MICRFACE).

Installation is simple and convenient to repair -- Totally frontal maintenance, disassembly simple repair, and mean time to repair is very short.

A recycled industrial material is used in environmental protection -- HIMOD series plays a positive role in environmental protection.

最大的灵活性 — 模块化设计, 外观更美观、一致; 模块间任意组合。

高效风机 — 利用可变速新式叶轮高效风机, 静压可在 20Pa~450Pa 调节, 结合特殊设计的大静压室, 使得 HIMOD 系列空调低噪音得以实现。

节能 — 由于使用高效风机和涡旋式压缩机, 使得 HIMOD 系列空调功耗大大降低 (比传统型号低 35%), 运行及维修费用低。

智能化控制 — 每个模块均由新型微电脑控制器(DDC-MICRFACE)控制。

安装维修简单方便 — 完全全正面维护, 部件拆卸维修简单, 非常短的平均故障修复时间。 **环境保护**

— HIMOD 系列采用可循环使用的工业材料, 对环境保护起着积极的作用。



Specifications for W series (W 系列吊顶式规格):

Direct expansion air-cooling/water-cooling A/W (Air flow: above/below)												
直接膨胀风冷, 水冷型-A/W(送风方式: 上送风/下送风)												
Model (型号)		W03	W04	W05	W08	W10	W13	W16	W18	W21	W23	W26
Total cooling cap. (总冷量)	kW	2.7	3.7	5.4	8.2	10.4	13.4	16	18.4	21.4	23.4	26.3
Humidity cap. (显冷量)	kW	2.6	3.6	5.2	7.9	10.1	13.2	14.9	17.7	19.9	22.5	25.2
Hum. Heat ratio 显热比)		0.96	0.97	0.96	0.96	0.97	0.98	0.93	0.91	0.93	0.92	0.92
EER (效能比)		3.43	3.35	3.65	3.45	3.69	3.62	3.69	3.49	3.45	3.51	3.57
The cold air ratio(冷风比)	w/m ³ /h	3.58	4.16	3.78	3.38	3.43	3.56	3.35	3.68	3.98	3.75	3.64
Compressor Q. (压缩机数量)	n	1	1	1	1	1	1	1	1	1	1	1
Input power (输入功率)	kW	4.4	5.9	6.0	6.9	7.0	7.8	9.7	10.7	11.5	12.4	13.3
Wind rate (风量)	m ³ /h	1000	1250	1350	2000	2800	4200	5100	5400	6200	7200	8000
Max. pre. (最大风压-上/下风送)	Pa	50 Max. to 450(最大可调整到 450)										
Fan i/p (风机输入功率)	kW	0.27	0.38	0.46	0.57	0.61	0.65	0.66	0.69	0.73	1	1.5
Noise (噪音-下送风)	dB(A)	51	54	53	55	56	58	58	58	60	60	62
Humidity (加湿量)	kg/h	9	9	9	9	13	13	13	13	13	13	13
Power of hum.(加湿功率)	kW	5.8	5.8	5.8	5.8	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Heating power (加热功率)	kW	5.85	5.85	7.5	7.5	15	15	15	15	15	15	15
Temp. acc. (温度控制精度)	℃	+/- 0.5到1										
Hum. Acc. (湿度控制精度)	%	+/- 3到5										
Length (长度)	mm	800	800	800	800	1000	1000	1100	1100	1100	1100	1100
Width (宽度)	mm	700	700	700	700	800	800	750	750	900	900	900
Height (高度)	mm	500	500	500	500	600	600	700	700	800	800	800
Weight (重量)	kg	56	56	56	62	62	62	62	65	66	67	69

HIROSS W series is designed to support this situation when there is a lack of spaces. All connections and troubleshooting points are located in one convenient place, the easy-access master terminal board. Units feature RS-232/RS-485 connecting capability.

HIROSS W 系列专为小空间情况而设计。所有的连接和故障排除点皆设在一个易于接入的主端子上。机组同时配有 RS-232/RS-485 的连接能力。

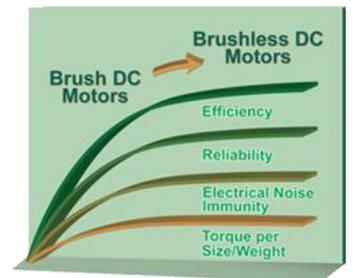
Hot air bypass channel is respectively arranged in each refrigeration circuit that makes the cooling capacity and the need of room matching perfectly, so it can reduce the frequency of compressor starting. When the sensor detects the smoke, the unit will shut down the fan immediately, and issue a warning sound. 热气旁通分别安装于各个制冷回路中, 使机组的制冷量与机房的需要匹配完善, 因此可以减少压缩机的频繁启动。当烟感探测器感测到烟雾时, 机组立即关闭主风机, 并同时发出报警声。





Specifications for HIMOD E series (HIMOD E 系列规格):

Direct expansion air cooling / water cooling (直接膨胀风冷、水冷型):						
Air flow: below, above (送风方式: 下送风、上送风)						
Model (型号)		E08	E14	E16	E17	E18
Characteristics (性能)						
Total cooling cap. (总冷量)	kW	27.9	49.0	56.8	57.9	62.8
Humidity cap. (显冷量)	kW	26.6	49.0	55.6	56.4	59.2
Hud. Heat ratio (显热比)		0.92	1.00	0.98	0.95	0.91
Compressor Q. (压缩机数量)	n	1	1	1	2	2
Fan Q. (风机数量)	n	1	2	2	2	2
Wind rate (风量)	m ³ /h	6640	14800	14700	14800	14700
Electrode (电加热)	kW	6	6	6	6	6
Max. Humidification (最大加湿量)	kg/h	9.0	9.0	9.0	9.0	9.0
Pressure (静压-上/下)	Pa	20/50 3-step adjustable (三挡静压可调)				
Noise (噪音-下送风)	dB(A)	54.4	58	60	59	61
Length (长度)	mm	1200	1750	1750	1750	1750
Width (宽度)	mm	850	850	850	850	850
Height (高度)	mm	1800	1800	1800	1800	1800
Weight (净重)	kg	270	600	620	635	650



Advantages: (优点)

- Pluggable fan (插拔式风机)
- Brushless direct drive type (无碳刷直接驱动式)
- Electrical parts inside the crankcase of fan (电器部分包含于风机轴箱中)
- Adjustable speed without transformer (速度调整无需变压器)
- No inverter for adjustable speed (无逆变速度调整)
- High speed air blower at any speed to maintain high efficiency (高速风机在任何速度下均保持高效)
- Power up to 7 kW above (功率可达 7kW 以上)
- Water-cooled condenser (水冷冷凝器)
- An extra water-cooled coil connected to a dry type condenser (另加的冷水盘管与干式冷凝器连接)
- When the outdoor temperature is lower than indoor, it still can achieve the energy saving. (当室外温度低于室内时, 仍可获得节能的冷量)
- Mixed DX+FC operation at the same time (直接膨胀型加自然冷却型可同时运行)
- The module can be moved vertically or horizontally (pneumatic compression). (模块可直立或水平搬(已充气加压))
- The wind direction for all models can be changed in the field for installation. (所有尺寸的模块送风方向均可现场转换)



Specifications for Flagship series (HIMOD flagship 系列规格):

XXU/OA		28U	34U	40U	26U	32U	42U	46U	55U	65U
Cooling sys. (制冷系统)		Single 单	Single 单	Single 单	Double 双	Double 双	Double 双	Double 双	Double 双	Double 双
Wind rate (风量)	m ³ /h	9980	11040	12510	9980	11040	12510	13500	14560	15680
Max. pre. (最大风压)	kW	430	400	370	430	400	370	320	230	165
Input power of fan (风机输入功率)	kW	2.2	2.4	2.7	2.2	2.4	2.7	3.0	3.7	4.1
Total cooling cap. (总冷量)	kW	30.5	35.4	44.3	29.0	35.5	42.5	53.7	58.7	66.6
Humidity cap. (显冷量)	kW	29.9	34.7	42.9	29.0	34.1	41.7	51.6	54.2	60.6
Noise (噪音)	dB(A)	56.5	57.6	59.2	56.5	57.6	59.0	60.8	62.6	63.8
Input power of com. (压缩机输入功率)	kW	6.2	7.1	8.9	5.8	7.2	8.7	11.7	13.8	15.0
Hud. Heat ratio (湿热比)		0.98	0.98	0.97	1.00	0.96	0.98	0.96	0.92	0.91
Efficiency (效能比)		3.63	3.73	3.81	3.62	3.71	3.74	3.66	3.23	3.34
Max. Hum. (最大加湿量)	kg/h	9-12	9-12	9-12	9-12	9-12	9-12	9-12	9-12	9-12
Power of hum. (加湿功率)	kW	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Electrode (电加热)	kg/h	11.7	11.7	11.7	11.7	11.7	11.7	11.7	17.55	17.55
Qty. of fan (风机数量)	n	2	2	2	2	2	2	2	2	2
Motor rate power (电机额定功率)	kW	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Qty. of com. (压缩机数量)	n	1	1	1	2	2	2	2	2	2
Qty. of eva. (蒸发器数量)	n	1	1	1	1	1	1	1	2	2
Filter grade (过滤器级数)		G4	G4	G4	G4	G4	G4	G4	G4	G4
Size (尺寸) (L×W×H)	mm	1750×890×1800								
Weight (重量)	kg	580	585	590	580	585	590	605	630	630
Total power (最大耗电量)	kW	23.46	24.34	26.72	19.87	20.57	21.56	23.11	30.01	30.61

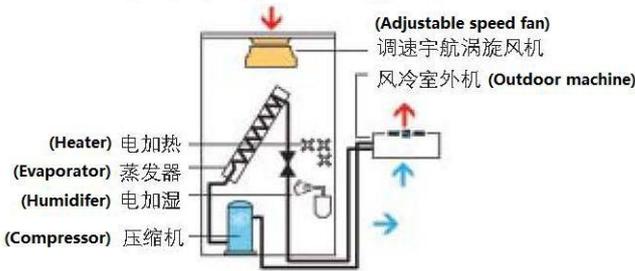
Advantages: (优点)

- Advanced MPC (先进微处理控制器)
- Maintenance (可维护性)
- Air cooling system (气冷却系统)
- Flexible installation (安装方式灵活多样)
- Copeland compressor (谷轮压缩机)
- Large evaporator coil (大的蒸发器盘管)
- Low noise (低噪声)
- Password protection (密码保护)
- Mixed Flagship+FC operation (旗舰型加自然冷却型有显著的节能效果)
- Hot air bypass (热气旁通)
- The floor bracket (地板支架)
- A variety of cap (多种风帽)
- Fire alarm (火灾报警)
- Frozen water accessories (冷冻水选件)
- Remote temperature and humidity sensor (远程温、湿度传感器)
- Condensate pump (冷凝水泵)
- Water leakage alarm (漏水报警)
- Emergency power off (紧急电源切断)
- Large evaporator coil (大的蒸发器盘管)
- Fan overloaded alarm (风机过载报警)
- Compressor overloaded alarm (压缩机过载报警)
- Remote control pane (远程监控面板)
- Green refrigerant (绿色制冷剂)
- Smoke detector (烟感探测器)

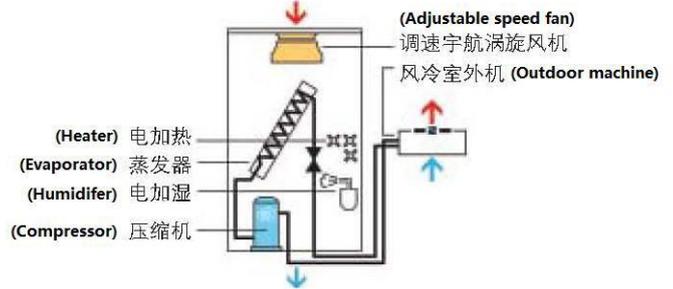


HIROSS's family (HIROSS 家族成员):

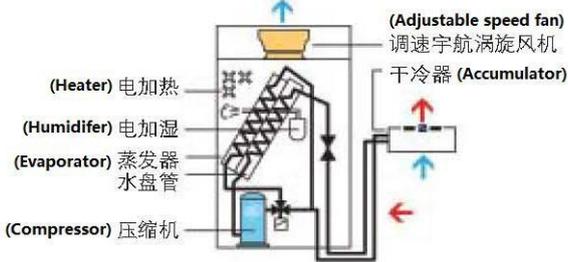
A — 风冷式弥漫型 (Diffuse air cooling)



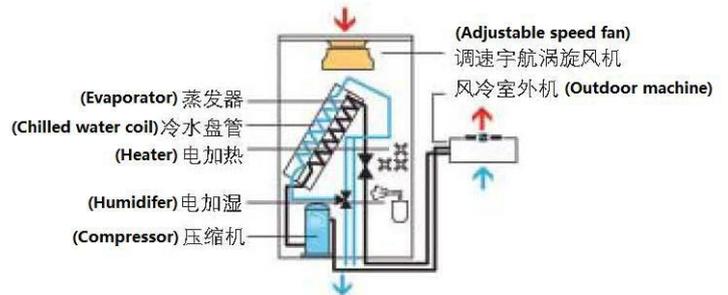
A — 风冷式 (Air cooling)



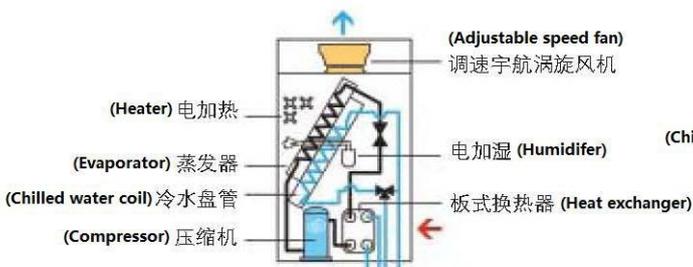
F — 自然冷却型 (上/下送风) (Free cooling-
above/below blowing)



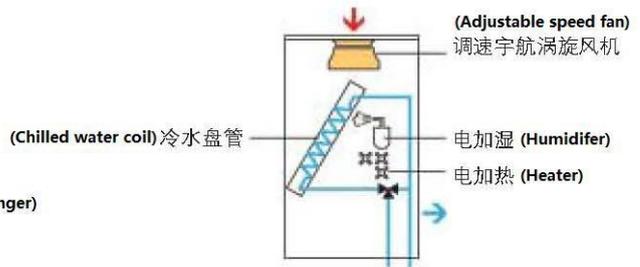
D — 双冷源 (风冷直接膨胀系统 / 冷冻水系统)
(Dual fluid-air cooling)



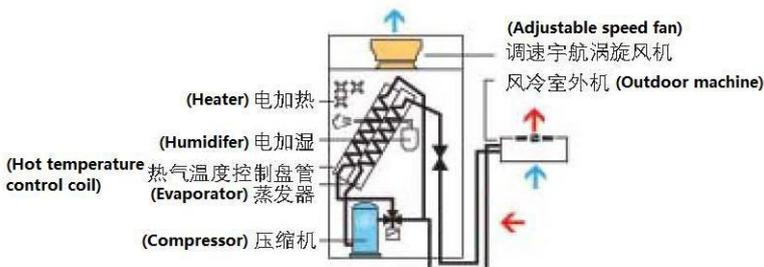
H — 双冷源 (水冷直接膨胀系统 / 冷冻水系统)
(Dual fluid-water cooling)



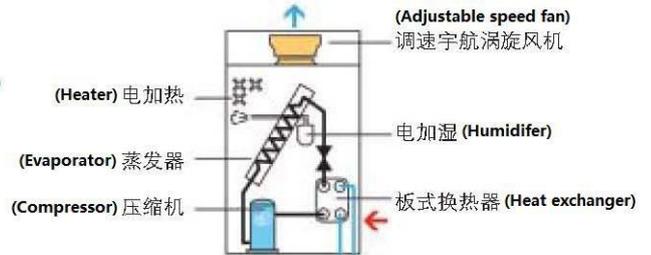
C — 冷冰水系统 (Chilled water)



A — 风冷高精度型 (温度 $\pm 0.3^{\circ}\text{C}$, 湿度 $\pm 2\%$)
(High precision air cooling)



W — 水冷直接膨胀系统
(Water cooling expansion system)





The standard diameter and electrical data series (标准管径及电气技术数据):

Model (型号)	Tube diameter for air (气管直径) (mm)	Tube diameter for liquid (液管直径) (mm)	Running current (运行电流) FLA(A)	Current protection (断路器保护电流) I Δ n=0.3A(400V)	Min. cable diameter (最小电缆线直径) (mm)
S03/S04/S05/W03/W04/W05	16×1	10×1	16.9	45A	4
S07/W08	16×1	10×1	17.5	45A	4
S10/W10	16×1	10×1	18.5	45A	6
S12	19×1	12×1	20	60A	6
S13/W13	19×1	12×1	22	60A	6
S16/S17/S18/W16/W18	19×1	12×1	24	60A	6
S20/S21/W21/P06	19×1	16×1	28	60A	6
S23/W23	19×1	16×1	30	60A	10
S25/M25/W26/P07	19×1	16×1	36.4	100A	10
S29/M29/P08	22×1	19×1	39.3	100A	10
M32/P09	22×1	19×1	41.2	100A	10
M34/P10	22×1	19×1	46.4	100A	10
M35	22×1	19×1	47.9	100A	10
M41/Q11/P11	24×1	19×1	52.7	100A	16
M42/Q14	24×1	19×1	46.8	100A	16
M47/P16	22×2	19×2	57.5	100A	16
M50/P17	22×2	19×2	64.5	100A	25
M58/Q17	22×2	19×2	68.3	100A	25
M66/Q19	25×2	19×2	79.2	125A	25
28A/W/F/D/H	22×1	19×1	45.2	50A	10
34A/W/F/D/H	22×1	19×1	47.9	50A	10
40A/W/F/D/H	24×1	19×1	52.7	63A	16
26A/W/F/D/H	22×1	19×1	40.2	50A	16
32A/W/F/D/H	22×1	19×1	44.4	50A	16
42A/W/F/D/H	24×1	19×1	46.8	63A	16
46A/W/F/D/H	22×2	19×2	55.2	63A	25
L83U/Q22	25×2	19×2	97.6	125A	25
Q25U	25×2	19×2	112.7	150A	25
L99U/Q29U	28×2	22×2	115.7	150A	25
99A/W	28×2	22×2	83.6	120A	35

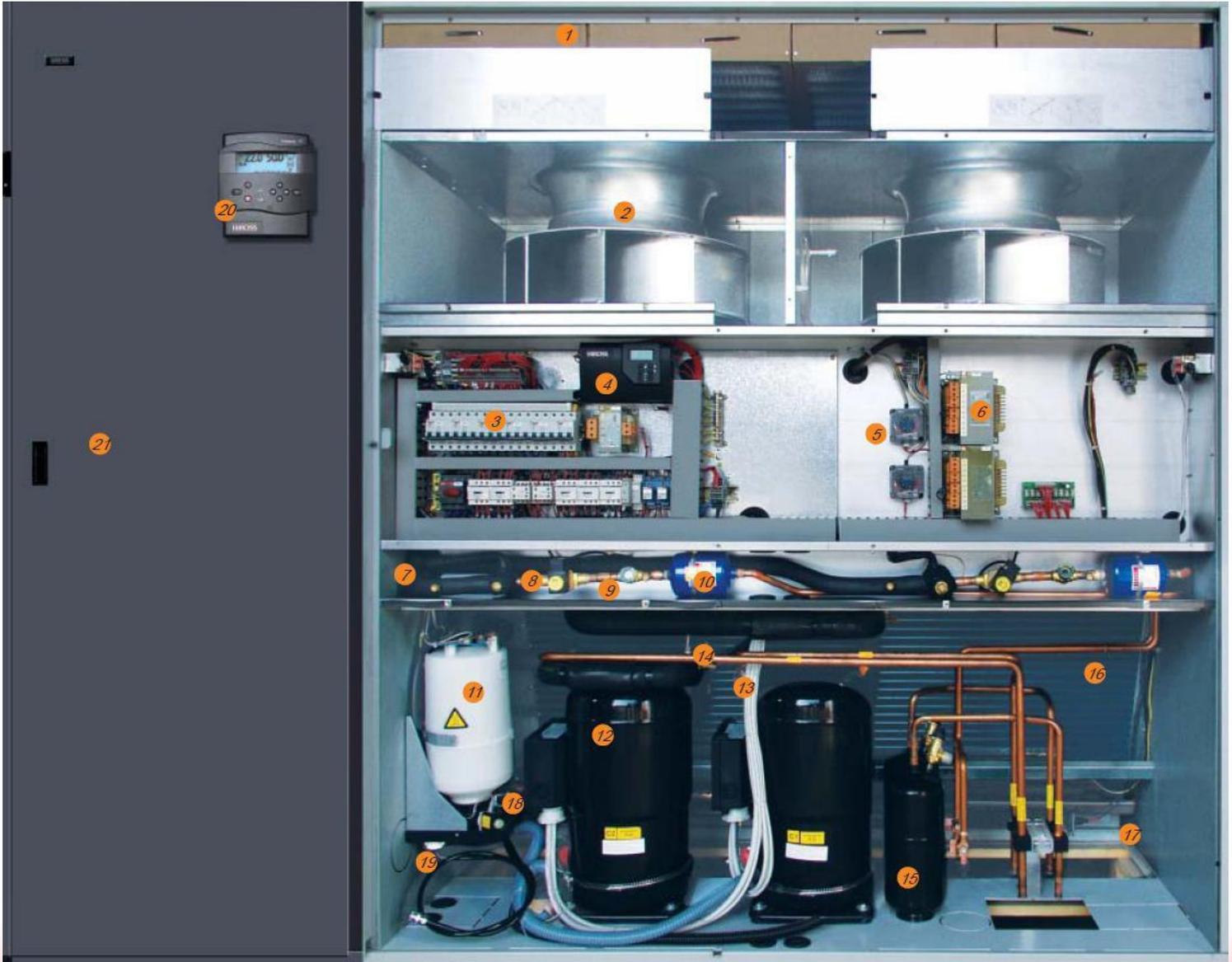
P.S. The diameter of gas or liquid tube and electrical parameters will be adjusted in accordance with local regulations. The list above is for reference only. 附：气/液管径及电气参数会依照当地法规规定而调整，上述表列仅供参考。





Components (零件):

1. EV4 air filter (EV4 空气过滤器)
2. Adjustable speed fan (宇航式可调速反曲涡轮风机)
3. Electrical control (电器控制盘)
4. MICROFACE micro controller (MICROFACE 微电脑控制器)
5. Air pressure sensor (风压传感器)
6. Voltage controller for the fan (风机调压控制器)
7. Expansion valve (膨胀阀)
8. Liquid line solenoid valve (液线电磁阀)
9. Liquid pipe mirror (液管视镜)
10. Accumulator (干燥过滤器)
11. Humidifier (电极式加湿器)
12. Compressor (涡轮压缩机)
13. High voltage protection breaker (高压保护开关)
14. Low voltage protection breaker (低压保护开关)
15. Liquid storage tank (储液罐)
16. Evaporator coil (蒸发盘管)
17. 3rd grade heater (三级电加热)
18. Electric control valve (排水电磁阀)
19. Electric control valve (上水电磁阀)
20. HIROMATIC graph controller – option (HIROMATIC 图形控制器-选件)
21. Door lock (门锁)





Parameters for outdoor units (室外机参数):

Model (型号)	Length (长度) (mm)	Width (宽度) (mm)	Height (高度) (mm)	Weight (重量) (kg)
S03/S04/W03/W04	840	285	610	45
S05/S07/W05	840	285	610	50
S08/W08	880/930	360/390	800/1270	52/55
S10/W10	960	370	1260	55
S12/S13/W13	960	370	1260	60/64
S16/S17/S18/W16/W18	960/750	370/750	1260/1085	68
S20/S21/S23/S25/M25/P06/W21/W23/W26	1470	750	1085	80
S20/S21/S23/S25/M25/P06/W21/W23/W26 (Optional)	1470	750	1085	83
S29/M29/P07/P08/P09/E08/26U/28U	1470	750	1085	95
S29/M29/P07/P08/P09/E08/26U/28U (Optional)	1470	750	1085	99
M32/M34/M35/P10/32U/34U	1470	750	1085	130
M32/M34/M35/P10/32U/34U (Optional)	1470	750	1085	133
M41/M42/Q11/ Q14/P11/E14/42U	1750/1690	1065/810	1855/1050	159
M41/M42/Q11/Q14/P11/E14/42U (Optional)	1750/1690	1065/810	1855/1050	164
M47/M50/ P15/40U	1475	755	1100	268
M47/M50/P15/40U (Optional)	1475	755	1100	272
M58/P17/E16/E17/46U/55U	1475	755	1100	284
M58/P17/E16/E17/46U/55U (Optional)	1880	1120	1030	189
Q17/E18	1475	755	1100	246
Q17/E18 (Optional)	1475	755	1100	252
M66/Q19/65U	1475	755	1100	260
M66/Q19/65U (Optional)	1475	755	1100	268
L83U	1475	755	1100	281
Q22/Q25U	1750	1060	1855	293
L99U/Q29U	1750	1060	1855	311

P.S. (备注): The parameters for non-standard products do not shown in here, if necessary, please contact the manufacturer. The new design of components and structures for the unit will change depending on the actual situation. 非标准型号机型参数不列在此处, 如果有需要, 请和生产厂家联系。新机型所使用的元件及机组内部的设计会根据实际 状况而有所变动。



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