



- Precision air-conditioning unit 精密型空调机组
Place: Computer room, laboratory, communication station 使用场所: 机房, 实验室, 通讯基站
- Constant temperature and constant humidity (CTCH) air-conditioning unit 恒温恒湿型机组
Place: wine cellar, workshop, MRI room 使用场所: 酒窖, 车间, 核磁共振室





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Company profile (公司简介) :

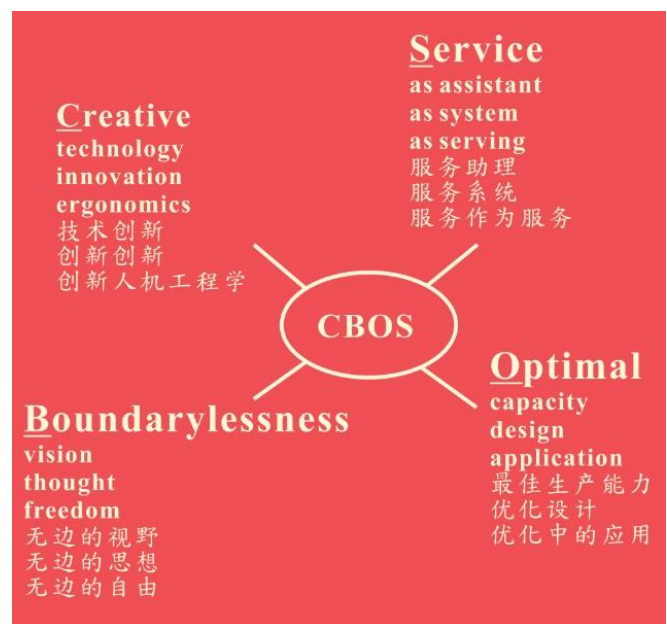
EABO is a leading global supplier in the field of precision air-conditioning system. EABO is located in Munich, Germany. With the Internationalization of the management experience, the business all over the world, and the proficiency in developing innovative solutions, has become the global leader in the air-conditioning integrated environment. The goal of company is to sustain the social responsibility, to establish the foundation of employee orientation, and to invent the new technology.

亿博 (EABO) 是全球领先精密空调集成系统的供应商。亿博总部设在德国慕尼黑。国际化的经营经验、业务遍布全球、及精通于开发创新解决方案，俨然已经成为精密空调环境集成系统的全球领先企业。

Shenzhen CBOS science and technology limited company, is located in the China frontier development zone, Shenzhen City, and is a subsidiary of EABO and CBOS Group. With an annual growth rate of 35% is the delectable number, and we plan to build a 50000 square meters of new production base. The target is expected to achieve in 2015. CBOS has more than 400 engineers and technicians with college degree or above and a large number of experienced technical workers which be trained regularly. In the production of manufacturing equipment and product testing and detection, EABO has invested large amounts of funds in facilities for the China branch, CBOS. ISO9001 quality certification, ISO 14001 environmental management system certification, and products that are covered by the People's Insurance Company of China, show that the level of manufacture, management, and quality is competed internationally. The ultimate gold of CBOS is to establish first-class technology, first-class quality, and first-class service.

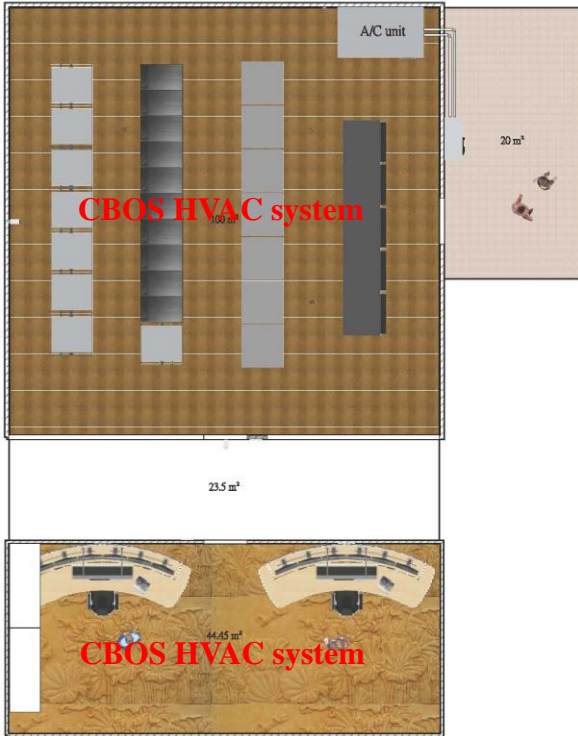
深圳冷博科技有限公司，坐落于中国边境开发区深圳市，是亿博和冷博集团下的子公司。冷博科技有限公司以每年 35% 的速度增长，这是一个可喜的数字，因此我们计划再建设一个 50000 平米的新生产基地，这个计划有望在 2015 年实现。工厂目前拥有 400 多名大专以上学历的工程技术人员及一批经验丰富、训练有素的专业技术工人。在生产制造设备和产品测试与检测方面，公司投入了大量的资金、使用了具备国际先进水平的生产制造设备和检测方式，并通过了 ISO9001 产品质量认证及 ISO14001 环境管理体系认证，所生产的产品均由中国人民保险公司承保。要立足于中国，冷博的目标是要创造一流的技术、一流的品质、和一流的服务。

EABO - Munich, Germany





Case design (个案设计) :



A top view is for reference only. The equipment in computer room and its location is going to be adjusted according to different case designs, and please makes the actual situation in construction site as the standard.

俯视图仅供参考，机房内所需的设备及其放置的地点会根据不同的个案设计而做调整，实际情况请以现场施工为准。

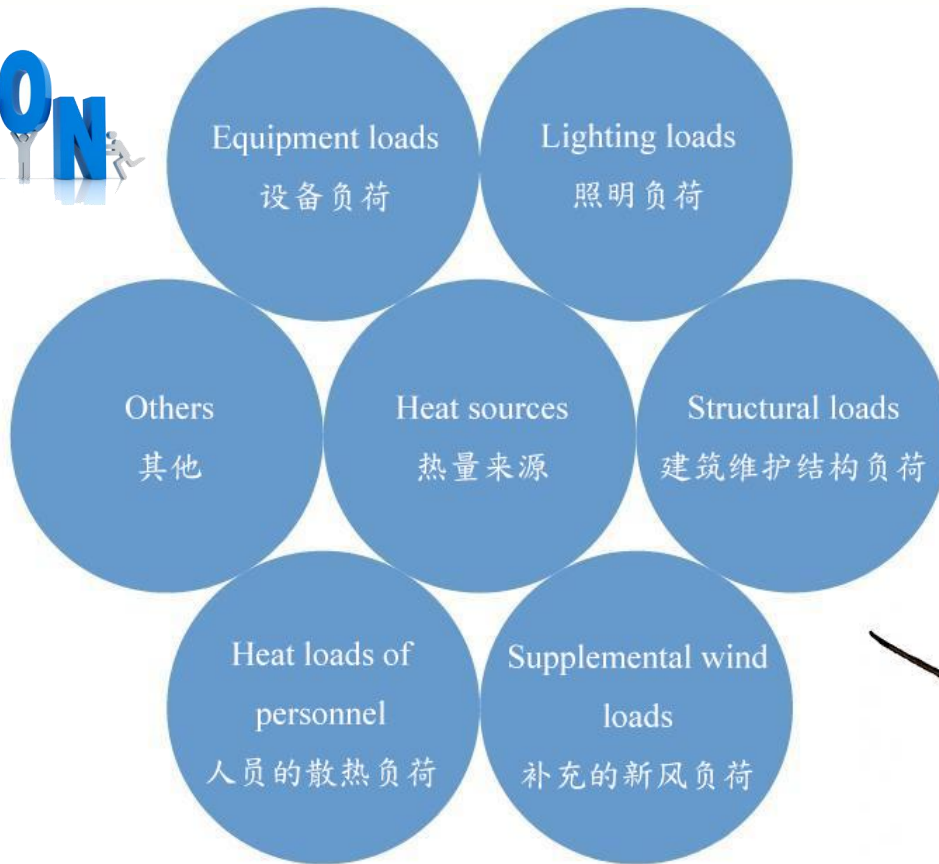
A 3D view is for reference only, and please makes the actual situation in construction site as the standard. A red color is represented as the source of heat, as well as a blue color is for the source of cooling.

三维示意图仅供参考，实际情况请以现场施工为准。
红色：热源；蓝色：冷源。





SOLUTION



The solution of equipment room is equipped with higher requirements for temperature and humidity control, space, and energy saving because of heat source of 30KW in the room. According to the characteristics of the space for the equipment room, the selection of model is recommended as CB-V065. 针对机房场所的空调解决方案，由于发热源为 30KW，且对温湿度控制、空间、节能有较高要求。根据机房场所的特点，空调选型推荐为：CB-V065 机型。

经济效益评估：(Economic Evaluation)

一、 该机房需安装空调面积总计 100 平方米左右，发热源为 30KW，且对温湿度控制、空间、节能有较高要求。依据实际情况每平米所需制冷量平均按 350W 计算，总需求为 65KW 的制冷量。

The total area is of about 100 square meters for the club, and the heating source is 30KW, and it requires the temperature and humidity control, space, and energy saving features. Required cooling capacity per square meter on average calculated based on the actual situation according to 350W, the total demand for cooling capacity is of 65KW.

二、 要满足该项目 65KW 的制冷量，需使用 CB-V065 机组 1 套装机。

To meet the cooling capacity of 65KW, this project is needed to use one set of unit (CB-V065).

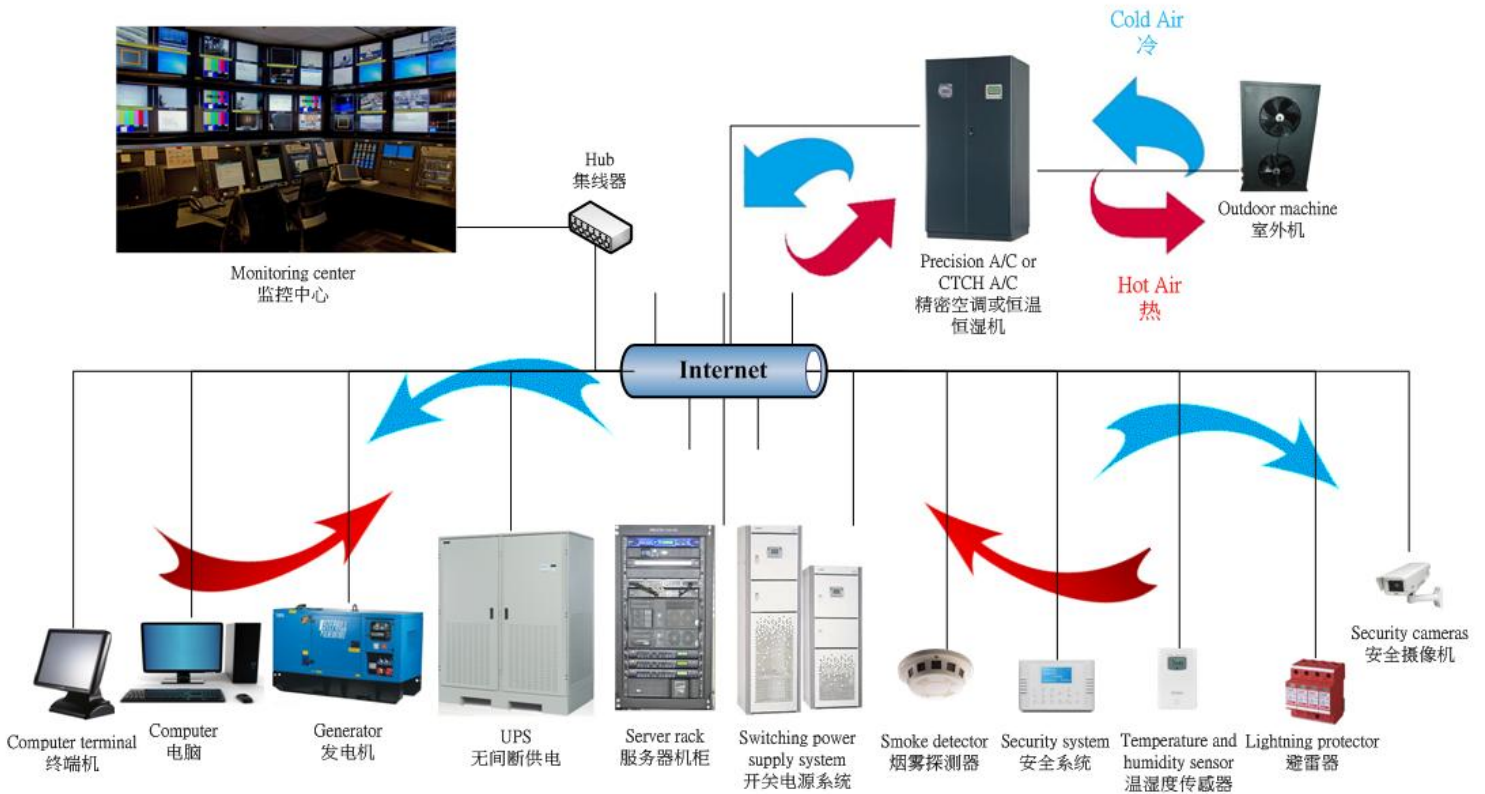
三、 经济效益对比：传统空调满足 65KW 制冷量的输入功率至少为 24KW 左右，而 CB-V065 机组 1 套主机的输入功率合计为 10KW，主机部分省电 41%，全年共计节省电费 2.6 万元以上。(按 1 年运行 8 个月，1 月运行 30 天，1 天运行 8 小时，用电按 1 元 1 度计算)

Comparison of economic benefits: the traditional air-conditioning input power (65KW cooling capacity) is at least about 24KW, and the CB-V065 input power per set is of 10KW. The energy saving is up to 41%. The annual saving is more than 26000 CNY. (According to 8 months per year, 30 days per month, 8 hours per day of operation, electricity by 1 CNY/1 degree calculation)



The system schematic for computer room (机房系统图) :

The system schematic for computer room (机房系统图)



A design of equipment room must meet the requirements of application development, and it must be of high quality, high safety, on open and flexible for facing the rapid growth of the demand in the future. In our design, follow the following principles: (a) Advanced and practical: the use of advanced technology and equipment meets current demand and takes into account the future development of business. (b) Safety and reliability: the network must have high reliability for applications. (c) Flexibility and scalability: computer room must have good flexibility and expansibility, can meet the needs of future business development, expand the capacity and improve the function of user quantity and quality. (d) Standard: the structure of computer room design is based on relevant international standards and national standards adhere to the principles of unified and standardized, laying the foundation for future development. (e) Management: the use of equipment should be intelligent and manageable, and it could realize centralized management control, simple room management and maintenance work, therefore, it could provide the most powerful support for its safety and reliable operation.

机房的设计必须满足当前各项应用，面对未来快速增长的发展需求，因此设计理念必须是高质量、高安全、灵活、和开放。我们在进行设计时，遵循以下设计原则：(a) 实用性和先进性：采用先进成熟的技术和设备，满足当前的需求，并兼顾未来的业务发展需要。(b) 安全可靠：为保证各项业务应用，网络必须具有高可靠性。(c) 灵活性与可扩展性：机房必须具有良好的灵活性与扩展性，能够根据今后业务不断发展的需要，扩大设备容量和提高用户数量和质量的功能。(d) 标准化：机房系统结构设计，基于国际标准和国家颁布的有关规范，坚持统一的原则，为未来的发展奠定基础。(e) 可管理性：所选用的设备应具有智能化和可管理的功能，以实现先进的集中管理监控和简化机房管理人员的维护工作，从而为其机房安全、可靠的运行提供最有力的保障。



Scopes and characteristics (应用范围及产品特性):

Fields (应用领域):

Communication: computer center, base station, data center, network center, etc.

Business: computer room, server room, UPS room, storage, information center, trading center, and etc.

Precision machining: control room, 3C monitoring room, satellite and rocket construction control room, and etc.

Environmental control: laboratory, testing room, clean room, show room, measuring center, art collection, museum, and etc.

通讯行业: 计算中心、通讯基站、数据中心及网管中心等。

商业: 计算机室、服务器房、UPS 机房、电池房、展示中心及交易中心等。

精密加工行业: 控制室、电气制造、CD 制造、精密加工、卫星火箭组装及控制室等。

环境控制领域: 实验室、测试室、洁净室、陈列室、计量中心、艺术收藏及博物馆等。



Beijing Telecom Eng. Bureau
北京电信工程局



Beijing Telecom Eng. Bureau
北京电信工程局



Zhejiang Yuhang Museum
浙江余杭博物馆



Dongguan Dalang Chamber of
Commerce
东莞大朗商会



Kunming Hengfeng Bank
昆明恒丰银行



Zhengzhou Hongyi Technology
郑州弘亿科技



Changxin Jiangnan Shipyard
江南长兴造船厂



Anhui Chery Auto Co., Ltd.
安徽奇瑞汽车股份有限公司



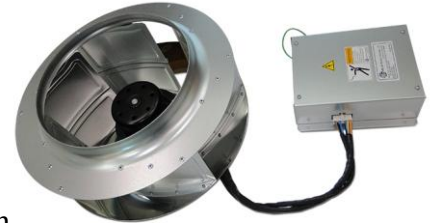
Guizhou People's Hospital
贵州省人民医院



Features (产品特性) :

Flexible (灵活):

1. Adjustable fan speed (调速风机)
2. Air modes (up blowing, down blowing, side blowing, back blowing, and front blowing) (送风方式多样(上送, 下送, 侧送, 后送, 前送))
3. Modular (assemble convenient) (模块化(组合方便))
4. Multiple type modules (多型式模块)
5. Optional EC fan, sunk EC fan design, saving energy by 20% compared with ordinary EC fan (可选 EC 风机, 沉没式设计, 与普通 EC 风机相比节能 20%)



Efficient (高效):

1. Copeland scroll compressor with high energy efficiency ratio (Copeland 涡旋式压缩机, 高能效比)
2. EC fan, 20% savings more than the regular fan (EC 风机, 比普通风机节能 20%)
3. V type evaporator, in the limited space to increase the heat transfer area (V 型蒸发器, 在有限的空间内增大换热面积)
4. Intelligent control panel (multiple language), LCD interface, simple, convenient, easy to maintain and settings - keypad/touch panel (多国语言智能控制面板, LCD 操作界面, 简洁, 方便, 易于维护和设置 - 按键式/触控式)
5. Standard RS485 and IP communication interface (标准的 RS485 和 IP 通信接口)
6. Powerful teamwork control and communication functions (强大团队控制和通信功能)

Reliable (可靠性):

1. Quality components with strict certification (过严格认证的高品质部件)
2. Advanced controller automatically balanced operation (先进的控制器自动平衡部件的运行和磨损)
3. Control system with expert diagnosis and fault alarm function (具有专家自诊断和故障预警功能的控制系统)
4. Skeleton frame riveted steel rivets, stable, sturdy, and easy separation (碳钢铆钉铆接的骨架机身, 既稳定坚固又容易拆分)
5. Inner and outer panels, built-in fire insulation materials (内外双层面板, 内置防火隔热材料)
6. Compressor of high and low pressure, exhaust temperature, air volume loss, and fan overload multiple protective measures (压缩机高低压, 排气高温, 风量丢失, 风机过载等多重保护措施)
7. High reliability, flexibility, low cost in entire life cycle (高可靠性, 灵活性, 整个寿命周期费用低)

Maintenance easily (易维护):

1. Easy disassembly (易拆卸)
2. Less consumption (少消耗)
3. Optimized structure (最优化的结构)
4. New engineer maintenance window (最新工程师维护窗口)
5. Maintenance window (opening while equipment is operating) (维护窗口(设备运行中开放))
6. Routine maintenance and troubleshooting (便于平常维护及判断故障)





Main components (主要零件) :

Refrigerating system (制冷系统) :

The system is used the enclosed scroll compressor with high-energy efficiency imported internationally. The compressor has some characters such as small vibration and reliable operation. The thermostatic expansion valve (electric/capillary) with reliability and technology balances the refrigerating system automatically under any operating conditions. The evaporator and air-cooling condenser is used the tube and fins former with high efficiency and low thermal resistance.

系统采用国际品牌全封闭涡旋压缩机，具有高效比、振动小及运行可靠等特点。采用进口名牌外平衡式热力膨胀阀，其技术成熟且可靠性高，具有任何情况下自行平衡制冷系统的功能。膨胀阀其节流方式可分为毛细管或电子式。



Gulun compressor
谷轮压缩机

Danfoss expansion valve 丹佛斯膨胀阀
Up/down 上:毛细管 /下:电子式

Fan system (风机系统) :

Double inlet centrifugal fan is used in indoor. The character is that low noise, smooth operation, small vibration, high efficiency, and long lifetime. The aerofoil fan with low noise axial wind is used in outdoor. The advantage is that high efficiency, large air volume, and low noise.

室内风机采用知名品牌双进风、低噪音离心式风机，具有运行平稳、振动小、噪音低、效率高及使用寿命长等特性。室外风机也采用知名品牌低噪音轴流风机，其效率高、风量大及噪音低等特点。



Double inlet centrifugal fan
风机

Control system (控制系统) :

The monitoring system is supported multiple language and set default language in Chinese. The information showing on display includes the temperature, humidity, status, control parameters, and error code. The interface is user-friendly designed and easy operated. The picture showing on the up right is the CBOS's model of the operational environment. The picture showing on the down right is the CBOS's model of the touch panel.

支援多国语言且内置中文显示控制器，具有温度、湿度和故障代码显示、工作状态及参数查询，操作设定全部中文化显示，符合人性化的设计、精确的控制及简便的操作方式。右上方图片显示 CBOS 触控面板操作环境，右下方图片显示 CBOS 触控面板型控制系统。



Filter system (过滤系统) :

Filters are permanent double nylon mesh, easy to wash off, and can be installed high efficiency particulate air (HEPA) filter according to customer requirements. (GB 50073-2013 Specifications for the design of clean factory buildings)

过滤器为永久性双层尼龙网，拆洗方便，并可依据客户要求装设更高效率的过滤器。空气洁净度以 GB 50073—2013《洁净厂房设计规范》中所定义。



Filter system
过滤器

Electrical components (电气元件) :

Using the international brand products in harsh environments can work accurately. The component is highly reliable and durable.

采用国际品牌产品，在恶劣环境下使用仍能准确工作，可靠性高，经久耐用。





Structure (机组结构) :

The case is welded by using the heart shape that has the impact resistance. The steel shell after molding is modified by the electrostatic spray treatment. This procedure makes the shell bright, clean, and nice. The steel shell is anti-carved, fireproof, anti-corrosive, and anti-rust. Furthermore, the steel shell also isolates the noise.

机组外壳使用心型焊接方式，此方式抗冲击性强，外壳使用优质钢板成型后，以静电喷塑处理外壳，表面效果亮丽光洁且美观大方，并具有防刮、阻燃、防腐及防锈等特点，隔绝机组内部噪音，密封效果好。

The steel case
钢板外壳



Humidification system (加湿系统) :

The humidifier is currently used the advanced computer controlled system for the humidification and drainage. The automatic cleaning procedure for humidifier tank is ensured that the status of humidifier is in the normal stage. The cleaning process is also extended the lifetime of product. Far-infrared humidifier is optional.

采用目前国际先进的电极式加湿系统，加湿量及进排水量均由电脑控制，加湿罐自动清洗程序确保加湿罐维持正常的加湿效率，大大延长加湿器的使用寿命。另有远红外加湿系统可选配。



The humidifier
电极式加湿系统



The humidifier
远红外加湿系统

Hose assembly & accumulator & compressor clutch (软管接头和干燥器和压缩机离合器) :

A combination of rubber and steel or aluminum pipes through which the freon passes between the other major components. The accumulator is a storage tank and filter for the freon. Its main purpose is to remove moisture from the refrigerant. The purpose of the compressor clutch is that engaging and disengaging the compressor.

结合橡胶与钢或铝合金管道，使氟里昂在其他主要部件之间通过。干燥器内储存和过滤是用于氟利昂。其主要目的是利用制冷剂除去水分。压缩机离合器目的是接合和分离压缩机。



Hose assembly
软管接头



Accumulator
干燥器



Compressor clutch
压缩机离合器

Refrigerant & Schrader valve (制冷剂 and 施克拉德阀) :

More commonly known as freon is the liquid or gas which passes through all the other components in the air conditioning system (R22 / R407c / R410a / R134a). The valve is where refrigerant is put into the system and system pressures are checked.

俗称氟利昂的液体或气体可经过制冷系统中所有其他的组件 (R22 / R407c / R410a / R134a)。阀门是控制制冷剂进入系统和系统压力的检查。



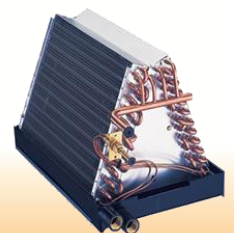
Schrader valve
施克拉德阀

Evaporator (蒸发器) :

This is where the refrigerant evaporates from a liquid form back into a gaseous form. As the refrigerant evaporates it gets very cold and allows the interior to be cooled off.

这是一个从液态制冷剂蒸发成气态形式。当制冷剂蒸发时，它变得非常冷，允许内部冷却下来。

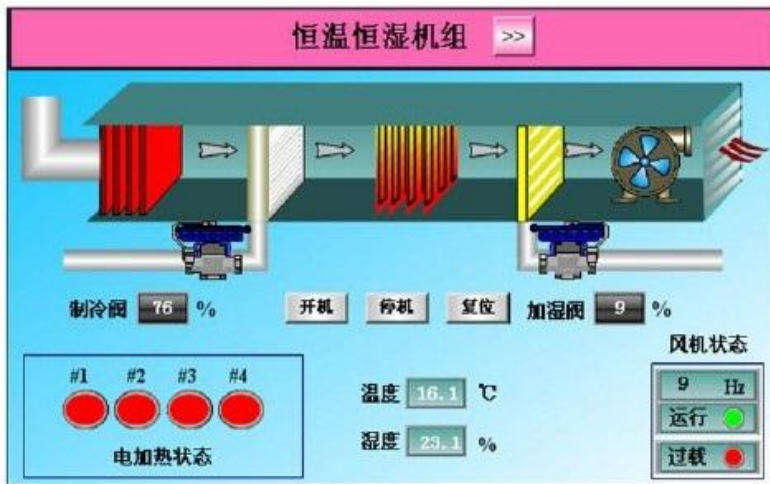
A coil evaporator
蒸发器



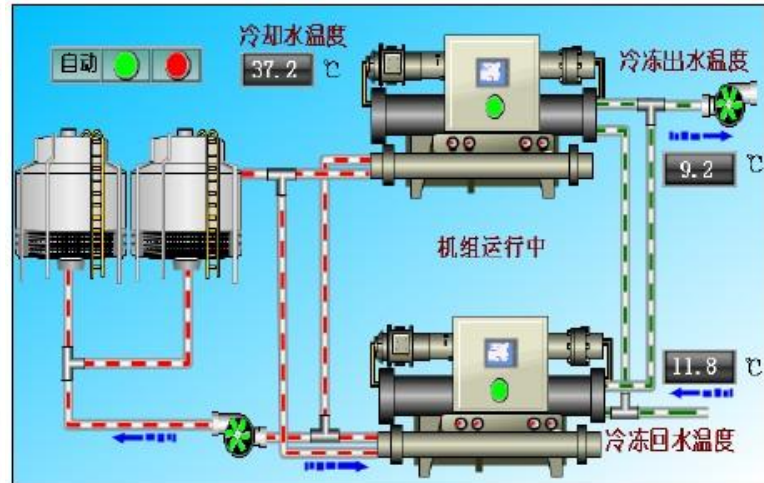


PC S/W – optional (上位机软件 – 选配) :

- The simple and stable user interface (简洁稳定的使用介面)
- Advanced controlling system (高等控制系统)
- Low cost developing environment (低成本开发环境)
- The integrated solution (整体解决方案)
- Real time monitoring and high efficiency (即时监控和高效)
- Remote sensing (远程感测)
- Alarm system (报警通知)
- Data searching, data exporting, and data printing (资料搜寻、资料导出、和资料列印)
- Manual configuration (手动排程设定)
- Message log (信息日志化)
- Password setting (密码功能)



Constant temperature and humidity control system
(恒温恒湿控制系统)



Screw type cold water machine automatic control system
(螺杆式冷水机控制系统)

Protection function (保护功能) :

The unit is implemented some functions for protections, such as: motor overloaded protection, short circuit protection, over current protection, phase sequence protection, over heating protection, high pressure protection, low voltage protection, discharge temperature protection, started frequently protection, blower fault protection, air pressure fault protection, and humidified fault protection. These features are ensured that the unit is under normal operation. The unit also reserves the interface for the fire alarm system. When fire occurs, the system will send the warning signal to the control system. The system receives the warning signal and then shuts down the unit to protect the facility. The unit also provides the interface module (RS-232/RS-485) and software for options.

机组具有电机过载、短路、过电流、相序保护、加热超温保护、压缩机高低压保护、压缩机排气高温保护、压缩机频繁启动保护、送风机故障保护、风压故障保护、加湿器故障保护等功能，为确保机组正常运行，机组留有火警信号接口与消防系统连接，当发生火灾时，消防系统传送火警信号给控制系统之后，机组即进入停机状态。机组还提供了接口模块 (RS-232 / RS-485) 和软件选项。



SL485 extension PCB board
SL485 扩展板



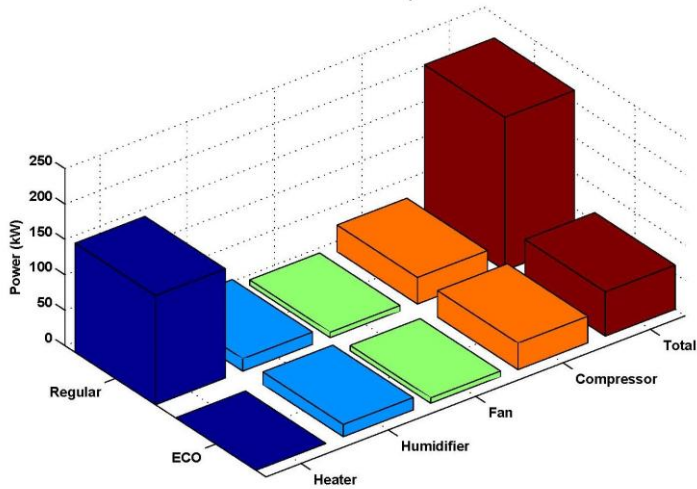
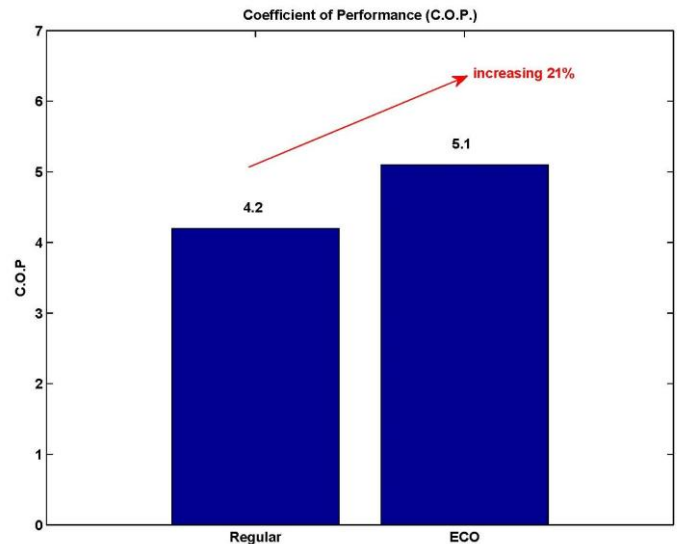
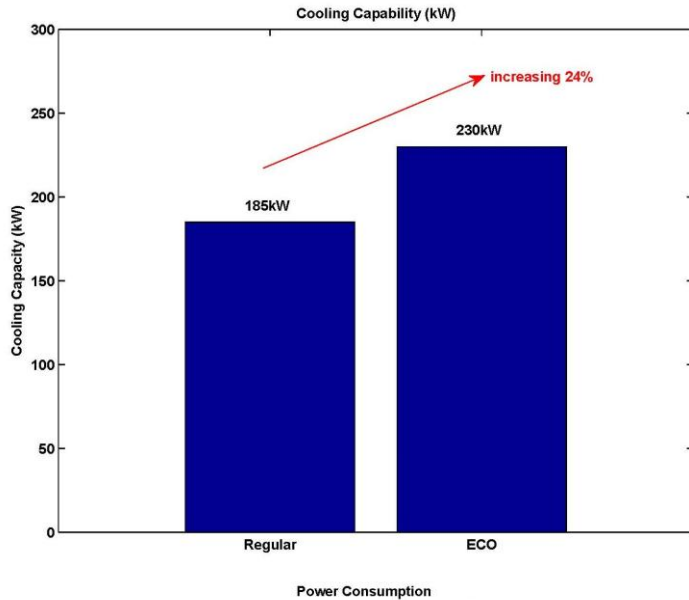
Protection function PCB board
保护功能控制板



Energy-saving data & performance of unit (节能数据和机组性能) :

This is a case of the energy-saving water-cooling air-conditioning unit versus regular water-cooling air-conditioning unit with the same 60 HP machine and the same power consumption. The refrigerating capacity for CBOS unit is increased 24% and the coefficient of performance (C.O.P.) is also increased 21%.

节能水冷单元式空调机，以 60HP 水冷单元式空调机为例：在输入功率相同的情况下制冷能力上升 24%，C. O. P. 上升 21%。



The eco unit of power consumption versus ordinary unit (Ex: 40 HP machine) (see left figure)

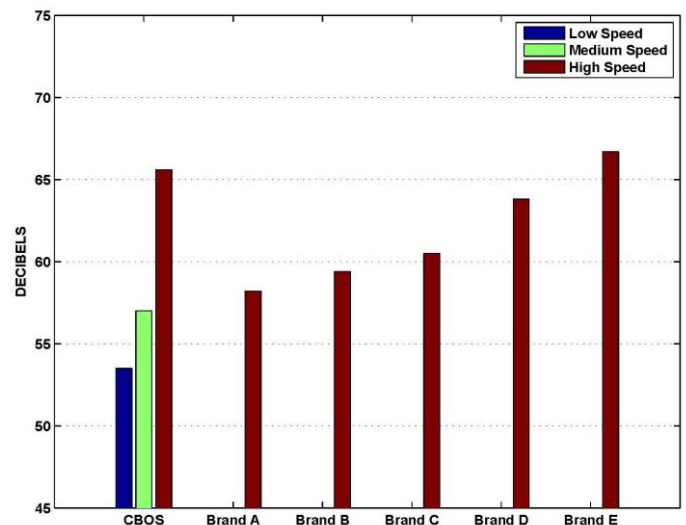
节能恒温恒湿机组与普通恒温恒湿机组对比，传统电加热丝输入功率(40HP 为例) (左图)

The eco unit: $62.4/216.4 \times 100\% = 28.8\%$; the saving = $100\% - 28.8\% = 71.2\%$

节能型省电= $62.4/216.4 \times 100\% = 28.8\%$; 省电 = $100\% - 28.8\% = 71.2\%$

CBOS's engineering department has established extensive product performance and test data, summarized in the charts right and below, across the following categories: sound performance (right figure), cooling performance, and humidity performance.

冷博的工程部门已经建立了广泛的产品性能和测试数据，总结了在右方及下方的图表中，类别分别为：声音、冷却和相对湿度等性能。

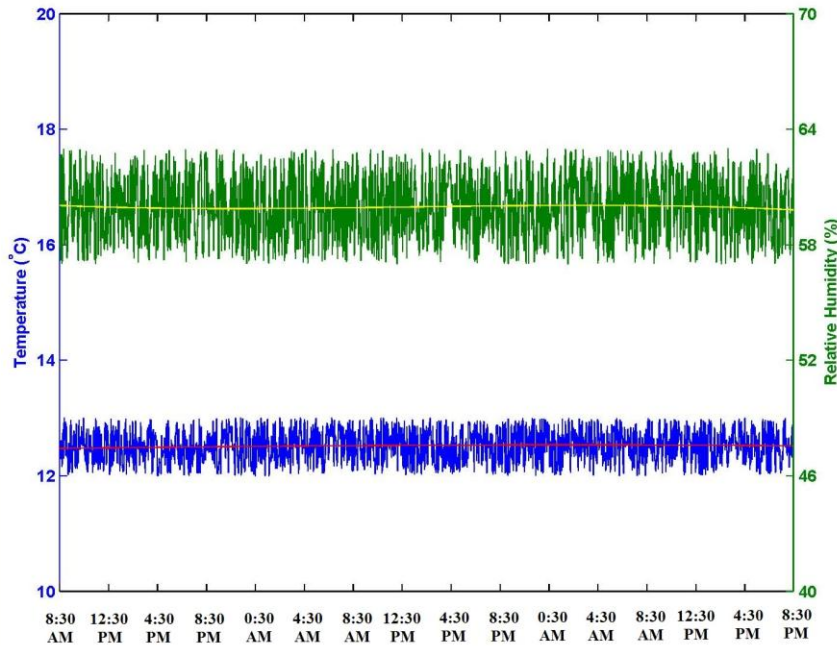




Test Conditions (测试条件):

1. All cooling units were installed and tested in the same test room.
2. The decibel measurements were recorded 1m (100cm) from the cooling unit and 2m (200cm) above the floor.
3. CB-Sxxx offers three variable-speed settings - Low, Medium and High - to meet variable cooling needs and ambient conditions. Decibel measurements were recorded at all three fan settings and displayed in the above chart.

1. 所有冷却机组都安装在同一试验室测试。
2. 分贝测量位置离冷却机组一米(100cm)和离地二米(200cm)。
3. CB-Sxxx 提供三变速设置：低、中和高满足变冷的需要和环境条件。分贝的测量是所有三个风扇设置在上面的图表显示的记录。



Summary (总结):

As illustrated in the charts above, CBOS units with variable-speed fans are significantly quieter than other cooling units. CBOS cooling unit consistently maintained cooler temperatures inside the test room and was able to cycle on and off with ambient temperatures ranging from 12°C to 13°C ($\pm 0.5^\circ\text{C}$). The red line is the trend for the temperature. CBOS cooling unit consistently maintained higher humidity inside the test room with ambient humidity ranging from 57% to 63% ($\pm 3\%$). The yellow line is the trend for the relative humidity.

上面的图表所示，CBOS 变速风扇的冷却机组比其它品牌冷却机组更安静。CBOS 冷却机组始终保持凉爽的温度和循环式的开启和关闭，试验室环境温度范围从摄氏 12 度到摄氏 13 度之间(摄氏 ± 0.5 度)。红线表示温度的趋势。CBOS 冷却机组保持较高的湿度范围，试验室环境相对湿度范围从 57%到 63%之间($\pm 3\%$)。黄线表示相对湿度的趋势。

Test Conditions (测试条件):

1. The cooling units were tested simultaneously in side-by-side cabinets.
 2. The cabinets were located in an enclosed, climate-controlled test room.
 3. Each cabinet was filled with 208 bottles (73% capacities).
 4. The CBOS cooling unit was set to maintain 12.5°C (12°C "off" / + 1°C "on").
1. 测试冷却机组在环境中同时并排测试。
 2. 所有测试机组位于封闭气候控制的试验室。
 3. 每个冷却机组装满 208 瓶水 (73%容量)。
 4. CBOS 冷却机组被设置保持摄氏 12.5 度 (摄氏 12 度 “关闭” / + 摄氏 1 度 “开启”)。



Product type (产品型号) :

CB-Sxxx01

I II III IV

The letters, CB, represent the air-conditioning unit manufactured by CBOS.

CB 表示 CBOS 所生产的空调设备机组。

I. Series (机组系列)

The first letter after the sign, -, represents the CBOS's model. They are S, V, M, E, I, and P series.

“-”之后的第一个英文字母表示机组系列，分别为 S、V、M、E、I 及 P 系列。

M: frozen water series (冷冻水系列); **I:** integrated machine series (一体机系列); **E:** evaporator (蒸发式系列); **P:** ceiling unit (吊顶式系列)

II. Approximate cooling capacity (近似制冷量)

The xxx after the sign, -, represents the approximate cooling capacity.

“-”之后的 xxx 英文字母表示近似的制冷量，以数字表示。

III. Air blowing (送风方式)

The third letter after the sign, -, represents the way of wind blowing. By using the number to describe the different way of wind blowing is shown as following:

“-”之后的第三个数字表示不同送风方式，不同送风方式分别用不同数字表示，定义如下：

0 – outlet (top), inlet (bottom); 1 – outlet (bottom), inlet (top); 2 – outlet (front), inlet (bottom);

3 – outlet (front), inlet (front); 4 – outlet (side), inlet (side);

9 – This number is reserved for the customized purpose.

0 – 上送风，下回风; 1 – 下送风，上回风; 2 – 前送风，下回风; 3 – 前送风，前回风; 4 – 侧送风，侧回风;

9 – 客制化

IV. Types of cooling (冷却方式)

The last letter after the sign, -, represents the way of cooling. By using the number to describe the way of cooling is shown as following:

“-”之后的第四个数字表示不同冷却方式，不同冷却方式分别用不同数字表示，定义如下：

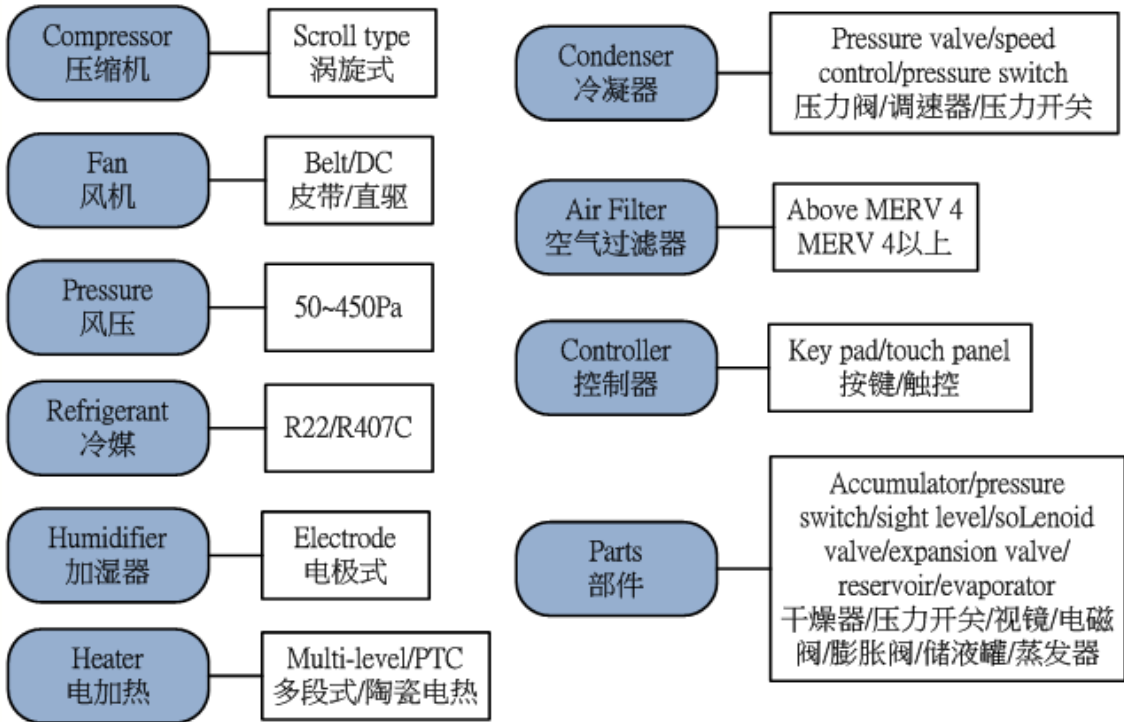
0 – air cooling 风冷; 1 – water cooling 水冷; 2 – evaporative 蒸发式; 3 – auxiliary blower 辅助送风; 4 – air cooled dual-fluid 风冷双冷源; 5 – chilled water 冷冻水; 6 – free cooling 自由冷却; 7 – water cooled dual-fluid 水冷双冷源

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, "CB-S" based on I, to represent it. The cooling capacity is 13kW. The xxx letter can use the number, "013" based on II, to represent it. The wind blowing is out from the top and in form the bottom. The wind blowing can use the number, "0" based on III, to represent it. The way of cooling is used the water to cool down the computer room. The way of cooling can use the number, "1" based on IV, to represent it. Finally, the model of CBOS unit will use the letter, "CB-S01301", to represent it.

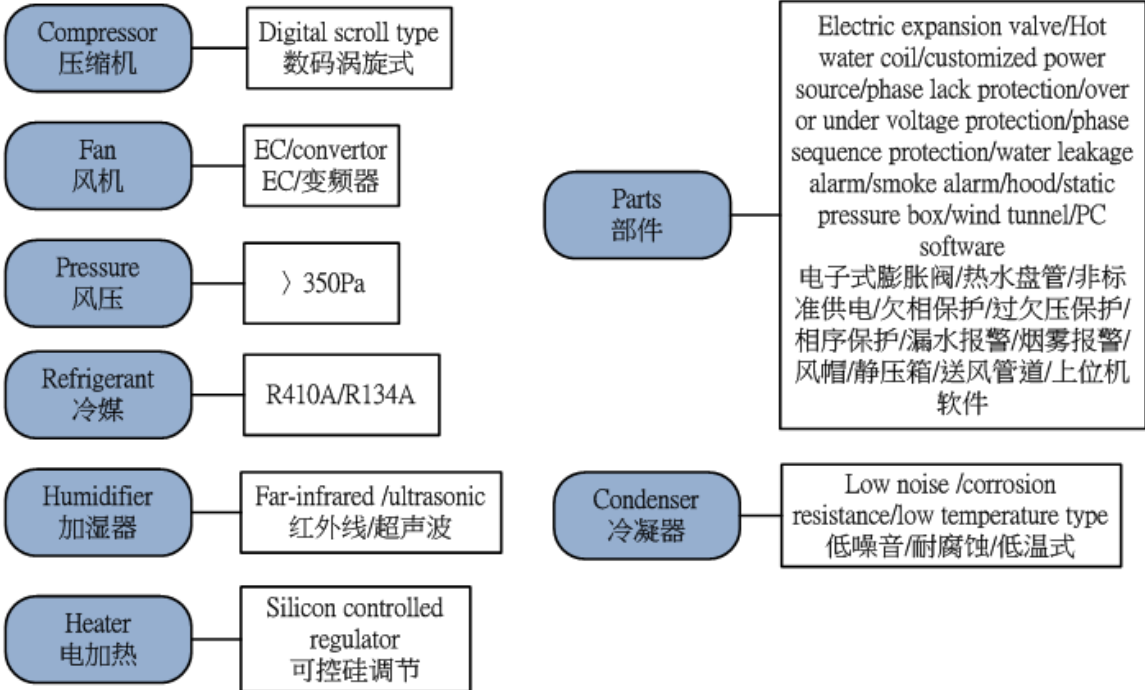
例如：依客户提出的要求。所要求的规格如下：如果 S 系列是最好的解决方案，可以用英文字母“CB-S”代表它，依照 I 的规则。若冷却能力为 13KW。XXX 可以使用数字“013”表示近似的制冷量，基于 II 的规则。送风方式若是从顶部送出和底部回风。送风方式可以使用数字“0”表示，基于 III 的规则。冷却的方式是使用水来冷却机房。因此冷却的方式可以使用数字“1”代表它，基于 IV 的规则。最后，此 CBOS 机型的表示方式为“CB-S01301”。



Standard unit
标准机组



Optional unit
选件机组





Specifications for CB-S series (CB-S 系列规格):

Model (型号): CB-S	Unit (单位)	S003	S004	S005	S008	S010	S013	S016
Co. cap. (制冷量)	kW (功率)	2.7	3.7	5.4	8.1	10.4	13.4	16
Sen. co. cap. (显冷量)	kW (功率)	2.6	3.6	5.1	7.8	10	12.9	15.5
S.H.R. (显热比)		0.98	0.97	0.95	0.96	0.96	0.96	0.97
Compressor (压缩机)	n (数量)	1	1	1	1	1	1	1
	kW (功率)	0.8	1.2	1.5	1.9	2.5	3.7	4.1
Fan (风机)	n (数量)	1	1	1	1	1	1	1
	m ³ /h (风量)	1000	1050	1250	2300	3400	3600	5100
	kW (功率)	0.27	0.38	0.46	0.57	0.61	0.65	0.66
	Pa (风压)	50 to 450(最大可调整到 450)						
Fan type (风机型式)		Belt/DC/EC fan (皮带/直连/EC 风机)						
Humidifier (加湿器)	kg/h (加湿量)	1	2	2	2	3	4	4
	kW (功率)	0.8	1.6	1.6	1.6	2.3	2.5	2.5
Hum. type (加湿方式)		Electrode/far-infrared /ultrasonic(电极/远红外线/超声波)						
Heater (加热)	kW (加热量)	3	3	3	3	3	6	6
	G (工作级数)	1	1	1	1	1	2	2
Tem. acc. (温度精度)	°C	+/-0.5						
Hum. acc. (湿度精度)	%	+/-3						
Refrigerant (制冷剂)		R22/R407c/R410a/R134a						
Size (室内机尺寸)	L (mm) 长	650	650	650	700	700	700	700
	W (mm) 宽	450	450	450	700	700	700	700
	H (mm) 高	1800	1800	1800	1800	1800	1800	1800
Weight (室内机)	kg (重量)	102	130	165	187	212	246	278
Noise (噪音)	dB(A)	40.3	40.9	42	43.7	45.1	47.1	49
Condenser – air cooling (冷凝器-风冷式)	kW (功率)	0.06	0.08	0.1	0.2	0.3	0.4	0.5
	dB(A)	48	50	52	59	59	58	62
Condenser – water cooling (冷凝器-水冷式)	m ³ /h (水流量)	0.6	0.8	1.1	1.6	2.1	2.6	2.8
	Pa (水压)	10	14	18	22	20	23	25
	L (水量)	0.3	0.4	0.6	1	1	1.8	2
Tube dia. (气/液管直径)	mm	1/2, 3/8	1/2, 3/8	1/2, 3/8	1/2, 3/8	5/8, 1/2	5/8, 1/2	5/8, 1/2
	n (数量)	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Model (室外机型号)		OU003	OU004	OU005	OU008	OU010	OU013	OU016
Size (室外机尺寸)	L (mm) 长	780	780	840	830/880	880	830/930	930
	W (mm) 宽	258	258	285	310/360	360	310/390	390
	H (mm) 高	540	540	610	710/800	800	1260/1270	1270
Weight (室外机)	kg (重量)	41	45	48	50/55	55	60/63	63
Noise (噪音)	dB(A)	60.3	60.9	62	63.7	65.1	67.1	69
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Fan motor (风机马达)	kW (功率)	0.37x1	0.37x1	0.37x1	0.37x1	0.37x1	0.37x1	0.37x1

P.S. (备注): The unit of energy level efficiency is based on the reference, GB/T17758-2010. Testing condition (indoor) → Dry ball: 27°C, wet ball: 19°C, condenser water (in): 30°C, condenser water (out): 35°C.

机组能效等级参考《GB/T17758-2010 单元式空气调节机能效限定值及能源效率等级》。测试条件: 室内干球温度 27°C, 湿球温度 19°C, 冷凝进水温度 30°C, 冷凝出水温度 35°C。



Specifications for CB-S series (CB-S 系列规格):

Model (型号): CB-S	Unit (单位)	S018	S021	S023	S029	S034	S042	S052
Co. cap. (制冷量)	kW (功率)	18.4	21.4	23.4	29	33.6	42	52
Sen. co. cap. (显冷量)	kW (功率)	16.9	19.9	21.5	27.3	30.9	38.3	47.8
S.H.R. (显热比)		0.91	0.93	0.92	0.94	0.92	0.91	0.92
Compressor (压缩机)	n (数量)	1	1	1	1	1	2	2
	kW (功率)	4.7	5.8	6.1	7.6	8.7	11.9	14.7
Fan (风机)	n (数量)	1	1	1	1	2	2	2
	m ³ /h (风量)	5400	6200	7200	8000	9900	13000	14500
	kW (功率)	0.69	0.73	1	1.5	2.1	2.6	2.7
	Pa (风压)	50 to 450 (最大可调整到 450)						
Fan type (风机型式)		Belt/DC/EC fan (皮带/直连/EC 风机)						
Humidifier (加湿器)	kg/h (加湿量)	4	4	4	4	8	10	12
	kW (功率)	3.2	3.2	3.2	3.2	6	7.5	9
Hum. type (加湿方式)		Electrode/far-infrared /ultrasonic(电极/远红外线/超声波)						
Heater (加热)	kW (加热量)	6	6	6	6	9	9	18
	G (工作级数)	2	2	2	2	2	2	2
Tem. acc. (温度精度)	°C	+/-0.5						
Hum. acc. (湿度精度)	%	+/-3						
Refrigerant (制冷剂)		R22/R407c/R410a/R134a						
Size (室内机尺寸)	L (mm) 长	700	1200	1200	1200	1200	1500	1850
	W (mm) 宽	700	800	800	800	800	800	850
	H (mm) 高	1800	1800	1800	1800	1800	2000	2000
Weight (室内机)	kg (重量)	286	292	295	299	376	473	634
Noise (噪音)	dB(A)	50.1	52	52.5	53.2	53.6	56.1	58.7
Condenser – air cooling (冷凝器-风冷式)	kW (功率)	0.6	0.7	0.75	0.8	0.8	1.5	1.5
	dB(A)	63	67	67	66.2	66.2	67	67
Condenser – water cooling (冷凝器-水冷式)	m ³ /h (水流量)	3.1	3.6	4	4.6	5.8	7.5	7.6
	Pa (水压)	23	36	32	25	33	24	24
	L (水量)	1.8	2.1	2.3	2.5	3	4	4
Tube dia. (气/液管直径)	mm	5/8, 1/2	5/8, 1/2	5/8, 1/2	5/8, 1/2	7/8, 1/2	5/8, 1/2	5/8, 1/2
	n (数量)	1/1	1/1	1/1	1/1	1/1	2/2	2/2
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Model (室外机型号)		OU018	OU021	OU023	OU029	OU034	OU042	OU052
Size (室外机尺寸)	L (mm) 长	930	1220	1220	1220	1500	1500	2165
	W (mm) 宽	390	450	450	450	450	450	450
	H (mm) 高	1270	1180	1180	1180	1180	1425	1180
Weight (室外机)	kg (重量)	65	67	70	77	77	93	120
Noise (噪音)	dB(A)	70.1	72	72.5	73.2	73.7	76.1	78.7
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Fan motor (风机马达)	kW (功率)	0.37x1	0.55x1	0.55x1	0.75x1	0.75x1	0.75x1	0.75x1

P.S. (备注): The unit of energy level efficiency is based on the reference, GB/T17758-2010. Testing condition (indoor) → Dry ball: 27°C, wet ball: 19°C, condenser water (in): 30°C, condenser water (out): 35°C.

机组能效等级参考《GB/T17758-2010 单元式空气调节机能效限定值及能源效率等级》。测试条件: 室内干球温度 27°C, 湿球温度 19°C, 冷凝进水温度 30°C, 冷凝出水温度 35°C。



Specifications for CB-V series (CB-V 系列规格):

Model (型号): CB-V	Unit (单位)	V065	V072	V091	V104	V130	V180	V200
Co. cap. (制冷量)	kW (功率)	65	72	91	104.3	129.6	180.1	200.3
Sen. co. cap. (显冷量)	kW (功率)	59.8	65.5	81.9	91.8	112.8	154.8	172.3
S.H.R. (显热比)		0.92	0.91	0.90	0.88	0.87	0.86	0.86
Compressor (压缩机)	n (数量)	2	2	2	2	2	3	3
	kW (功率)	17.4	18.8	26.5	29.2	33.2	35.1	39.3
Fan (风机)	n (数量)	2	2	2	2	3	3	3
	m ³ /h (风量)	18500	19500	24000	29000	31000	33000	35000
	kW (功率)	3.21	3.89	4.5	4.5	5	5	5
	Pa (风压)	50 to 450 (最大可调整到 450)						
Fan type (风机型式)		Belt/DC/EC fan (皮带/直连/EC 风机)						
Humidifier (加湿器)	kg/h (加湿量)	15	16	16	20	24	28	32
	kW (功率)	11.3	12	12	15	18	21	24
Hum. type (加湿方式)		Electrode/far-infrared /ultrasonic(电极/远红外线/超声波)						
Heater (加热)	kW (加热量)	24	36	42	48	54	60	66
	G (工作级数)	2	2	2	2	2	2	2
Tem. acc. (温度精度)	°C	+/-0.5						
Hum. acc. (湿度精度)	%	+/-3						
Refrigerant (制冷剂)		R22/R407c/R410a/R134a						
Size (室内机尺寸)	L (mm) 长	1900	2200	2300	2300	2300	2350	2350
	W (mm) 宽	950	950	1080	1080	1080	1080	1080
	H (mm) 高	2150	2150	2200	2200	2200	2300	2300
Weight (室内机)	kg (重量)	675	687	813	842	876	902	935
Noise (噪音)	dB(A)	61.2	64.1	68	68.3	70.2	72.4	74.7
Condenser - air cooling (冷凝器-风冷式)	kW (功率)	1.6	1.6	2.8	2.8	3.2	3.5	3.7
	dB(A)	66.2	66.2	70	70	72.3	74.5	76.2
Condenser - water cooling (冷凝器-水冷式)	m ³ /h (水流量)	11.2	12.9	16.7	18.2	20.5	22.4	24.5
	Pa (水压)	23	22	21	26	24	23	27
	L (水量)	6	7	9	9	12	12	15
Tube dia. (气/液管直径)	mm	7/8, 1/2	5/8, 1/2	5/8, 1/2	7/8, 1/2	7/8, 1/2	7/8, 1/2	7/8, 1/2
	n (数量)	2/2	4/4	4/4	4/4	4/4	4/4	4/4
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Model (室外机型号)		OU065	OU072	OU091	OU104	OU130	OU180	OU200
Size (室外机尺寸)	L (mm) 长	2640	2820	2820	2820	2820	2820	2820
	W (mm) 宽	450	1120	1120	1120	1120	1120	1120
	H (mm) 高	1180	1030	1195	1195	1195	1195	1195
Weight (室外机)	kg (重量)	120	120	120	120	140	140	140
Noise (噪音)	dB(A)	70.1	72	72.5	73.2	75.1	77.2	79.3
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Fan motor (风机马达)	kW (功率)	0.55x2	0.55x2	0.75x2	0.75x2	0.75x2	0.75x2	0.75x2

P.S. (备注): The unit of energy level efficiency is based on the reference, GB/T17758-2010. Testing condition (indoor) → Dry ball: 27°C, wet ball: 19°C, condenser water (in): 30°C, condenser water (out): 35°C.

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Specifications for CB-M series (CB-M 系列冷冻水规格):

Model (型号): CB-M	Unit (单位)	M031	M042	M052	M065	M072	M091	M104
Co. cap. (制冷量)	kW (功率)	31.2	42	52	65	72	91	104
Sen. co. cap. (显冷量)	kW (功率)	25.3	34.9	42.7	54.6	59.1	73.8	85.6
S.H.R. (显热比)		0.81	0.83	0.82	0.84	0.82	0.81	0.82
Fan (风机)	n (数量)	1	1	1	1	2	2	2
	m ³ /h (风量)	7800	11000	14500	16000	17000	23000	29000
	kW (功率)	1.29	2.09	2.33	2.67	2.75	4.14	5.93
	Pa (风压)	50 to 450 (最大可调整到 450)						
Fan type (风机型式)		Belt/DC/EC fan (皮带/直连/EC 风机)						
Chilled water tube (冷冻水盘管)	°C (温度) 进/出	7.0/12.5	7.0/12.5	7.0/12.5	7.0/12.5	7.0/12.5	7.0/12.5	7.0/12.5
	m ³ /h (水流量)	4.6	6.2	8.3	10.4	11.6	13.9	16.3
	Pa (盘管+阀压)	27	18	27	30	51	39	25
	L (水量)	9.7	14.4	19.7	24.4	27.6	29.7	37.7
Pipe (水管管径)	inch	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"	2"	2"
Humidifier (加湿器)	kg/h (加湿量)	8	8	15	15	15	15	15
	kW (功率)	6	6	11.3	11.3	11.3	11.3	11.3
Hum. type (加湿方式)		Electrode/far-infrared /ultrasonic(电极/远红外线/超声波)						
Heater (加热)	kW (加热量)	9	13.5	13.5	13.5	13.5	18	18
	G (工作级数)	2	2	2	2	2	2	2
Tem. acc. (温度精度)	°C	+/-0.5						
Hum. acc. (湿度精度)	%	+/-3						
Size (室内机尺寸)	L (mm) 长	1320	1620	1830	2155	2155	2690	3225
	W (mm) 宽	860	860	860	860	860	860	860
	H (mm) 高	1925	1925	1925	1925	1925	1925	1925
Weight (室内机)	kg (重量)	337	391	427	490	510	596	735
Noise (噪音)	dB(A)	54.1	57	59.1	60	62	66.1	64.3
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						

P.S. (备注):

- The unit of energy level efficiency is based on the reference, GB/T17758-2010. Testing condition (indoor) → Dry ball: 27°C, wet ball: 19°C, frozen water (in): 7°C, frozen water (out): 12.5°C.
 - The specifications due to the improvement of product and redesign would not give the notice.
 - The unit is the national energy-saving product that meets the national energy-saving requirement.
- 机组能效等级参考《GB/T17758-2010 单元式空气调节机能效限定值及能源效率等级》。
测试条件：室内干球温度 27°C，湿球温度 19°C，冷冻水进水温度 7°C，冷冻水出水温度 12.5°C。
 - 机组规格因产品改良而更改，恕不另行通知。
 - 机组为国家节能产品，符合国家节能产品的要求。





Specifications for CB-P series (CB-P 系列吊顶式规格):

Model (型号): CB-P	Unit (单位)	P003	P004	P005	P008	P010	P013	P016
Co. cap. (制冷量)	kW (功率)	2.7	3.7	5.4	8.1	10.4	13.4	16
Sen. co. cap. (显冷量)	kW (功率)	2.6	3.6	5.1	7.8	10	12.9	15.5
S.H.R. (显热比)		0.98	0.97	0.95	0.96	0.96	0.96	0.97
Compressor (压缩机)	n (数量)	1	1	1	1	1	1	1
	kW (功率)	0.8	1.2	1.5	1.9	2.7	3.7	4.1
Fan (风机)	n (数量)	1	1	1	1	1	1	1
	m ³ /h (风量)	1000	1250	1350	2000	2800	4200	5100
	kW (功率)	0.27	0.38	0.46	0.57	0.61	0.65	0.66
	Pa (风压)	50 to 450 (最大可调整到 450)						
Fan type (风机型式)		Belt/DC/EC fan (皮带/直连/EC 风机)						
Humidifier (加湿器)	kg/h (加湿量)	1	2	2	2	3	4	4
	kW (功率)	0.8	1.6	1.6	1.6	2.3	2.5	2.5
Hum. type (加湿方式)		Electrode/far-infrared /ultrasonic(电极/远红外线/超声波)						
Heater (加热)	kW (加热量)	3	3	3	3	3	6	6
	G (工作级数)	1	1	1	1	1	2	2
Tem. acc. (温度精度)	°C	+/-0.5						
Hum. acc. (湿度精度)	%	+/-3						
Refrigerant (制冷剂)		R22/R407c/R410a/R134a						
Size (室内机尺寸)	L (mm) 长	850	850	850	850	900	900	900
	W (mm) 宽	750	750	750	750	800	800	800
	H (mm) 高	500	500	500	500	600	600	600
Weight (室内机)	kg (重量)	56	56	56	62	62	62	62
Noise (噪音)	dB(A)	40.3	40.9	42	43.7	45.1	47.1	49
Condenser – air cooling (冷凝器-风冷式)	kW (功率)	0.06	0.08	0.1	0.2	0.3	0.4	0.5
	dB(A)	45	47	50	59	58	58	62
Condenser – water cooling (冷凝器-水冷式)	m ³ /h (水流量)	0.6	0.8	1.1	1.6	2.1	2.6	2.8
	Pa (水压)	10	13	15	22	16	13	25
	L (水量)	0.3	0.4	0.6	1	1.5	1.8	2
Tube dia. (气/液管直径)	mm	1/2, 3/8	1/2, 3/8	1/2, 3/8	1/2, 3/8	5/8, 1/2	5/8, 1/2	5/8, 1/2
	n (数量)	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Model (室外机型号)		OU003	OU004	OU005	OU008	OU010	OU013	OU016
Size (室外机尺寸)	L (mm) 长	780	780	840	830/880	880	830/930	930
	W (mm) 宽	258	258	285	310/360	360	310/390	390
	H (mm) 高	540	540	610	710/800	800	1260/1270	1270
Weight (室外机)	kg (重量)	41	45	48	52/55	55	58/62	62
Noise (噪音)	dB(A)	60.3	60.9	62	63.7	65.1	67.1	69
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Fan motor (风机马达)	kW (功率)	0.37x1	0.37x1	0.37x1	0.37x1	0.37x1	0.37x1	0.37x1

P.S. (备注): The parameters for non-standard products do not shown in here, if necessary, please contact the manufacturer. Testing → Dry ball: 27°C, wet ball: 19°C, condenser water (in): 30°C, condenser water (out): 35°C.
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。测试条件: 室内干球温度 27°C, 湿球温度 19°C, 冷凝进水温度 30°C, 冷凝出水温度 35°C。



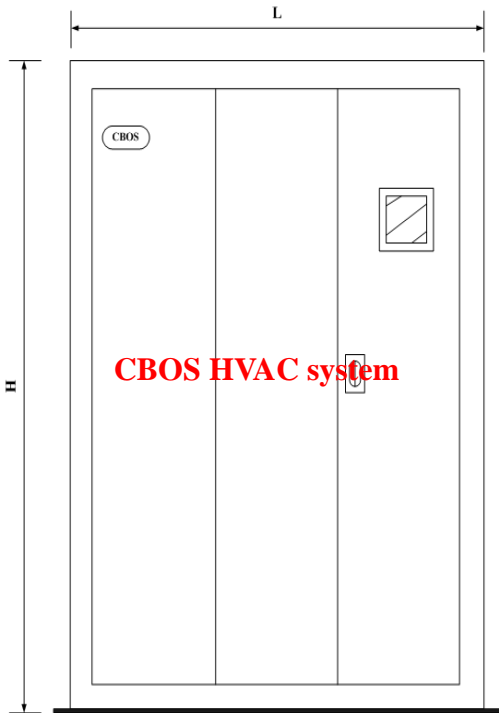
Specifications for CB-P series (CB-P 系列吊顶式规格):

Model (型号): CB-P	Unit (单位)	P018	P021	P023	P026	P034	P042	P052
Co. cap. (制冷量)	kW (功率)	18.4	21.4	23.4	26.3	33.6	42	52
Sen. co. cap. (显冷量)	kW (功率)	16.9	19.9	21.5	24.2	30.9	38.3	47.8
S.H.R. (显热比)		0.91	0.93	0.92	0.92	0.92	0.91	0.92
Compressor (压缩机)	n (数量)	1	1	1	1	1	2	2
	kW (功率)	4.7	5.8	6.1	7.2	8.7	11.9	14.7
Fan (风机)	n (数量)	1	1	1	1	2	2	2
	m ³ /h (风量)	5400	6200	7200	8000	9900	13000	14500
	kW (功率)	0.69	0.73	1	1.5	2.1	2.6	2.7
	Pa (风压)	50 to 450 (最大可调整到 450)						
Fan type (风机型式)		Belt/DC/EC fan (皮带/直连/EC 风机)						
Humidifier (加湿器)	kg/h (加湿量)	4	4	4	4	8	10	12
	kW (功率)	3.2	3.2	3.2	3.2	6	7.5	9
Hum. type (加湿方式)		Electrode/far-infrared /ultrasonic(电极/远红外线/超声波)						
Heater (加热)	kW (加热量)	6	6	6	6	9	9	18
	G (工作级数)	2	2	2	2	2	2	2
Tem. acc. (温度精度)	°C	+/-0.5						
Hum. acc. (湿度精度)	%	+/-3						
Refrigerant (制冷剂)		R22/R407c/R410a/R134a						
Size (室内机尺寸)	L (mm) 长	1100	1100	1100	1100	1200	1500	1850
	W (mm) 宽	800	800	800	800	800	800	850
	H (mm) 高	700	700	700	700	700	700	700
Weight (室内机)	kg (重量)	65	66	67	69	73	78	82
Noise (噪音)	dB(A)	50.1	52	52.5	53.2	53.6	56.1	58.7
Condenser - air cooling (冷凝器-风冷式)	kW (功率)	0.6	0.7	0.75	0.8	0.8	1.5	1.5
	dB(A)	63	67	67	66.2	66.2	67	67
Condenser - water cooling (冷凝器-水冷式)	m ³ /h (水流量)	3.1	3.6	4	4.6	5.8	7.5	7.6
	Pa (水压)	23	36	32	25	33	24	24
	L (水量)	1.8	2.1	2.3	2.5	3	4	4
Tube dia. (气/液管直径)	mm	5/8, 1/2	5/8, 1/2	5/8, 1/2	5/8, 1/2	7/8, 1/2	5/8, 1/2	5/8, 1/2
	n (数量)	1/1	1/1	1/1	1/1	1/1	2/2	2/2
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Model (室外机型号)		OU018	OU021	OU023	OU026	OU034	OU042	OU052
Size (室外机尺寸)	L (mm) 长	930	1220	1220	1220	1500	1500	2165
	W (mm) 宽	390	450	450	450	450	450	450
	H (mm) 高	1270	1180	1180	1180	1180	1425	1180
Weight (室外机)	kg (重量)	62	67	70	74	77	93	120
Noise (噪音)	dB(A)	70.1	72	72.5	73.2	73.7	76.1	78.7
Power (电源)	VAC(Hz)	415/380/220VAC (50Hz) TN-C/TN-S						
Fan motor (风机马达)	kW (功率)	0.37x1	0.55x1	0.55x1	0.75x1	0.75x1	0.75x1	0.75x1

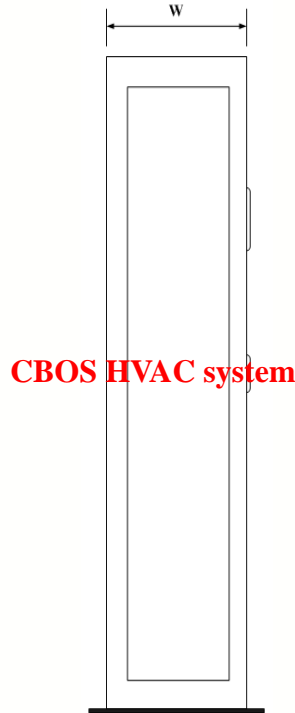
P.S. (备注): The parameters for non-standard products do not shown in here, if necessary, please contact the manufacturer. Testing → Dry ball: 27°C, wet ball: 19°C, condenser water (in): 30°C, condenser water (out): 35°C.
非标准型号机型参数不列在此处, 如果有需要, 请和生产厂家联系。测试条件: 室内干球温度 27°C, 湿球温度 19°C, 冷凝进水温度 30°C, 冷凝出水温度 35°C。



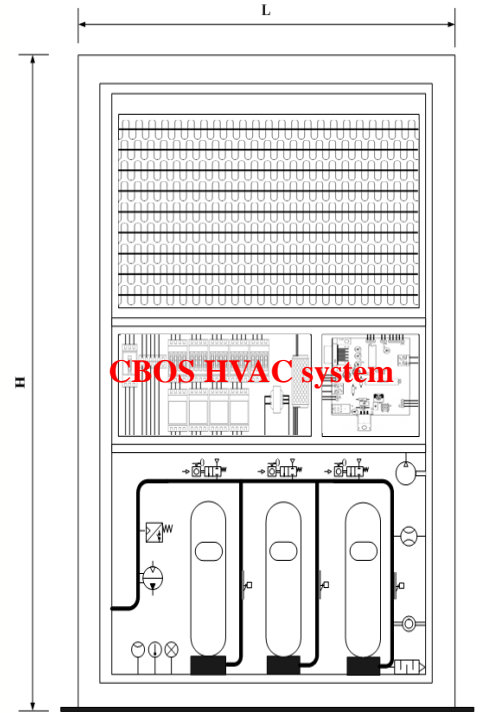
Structure for CBOS series (CBOS 系列结构图):



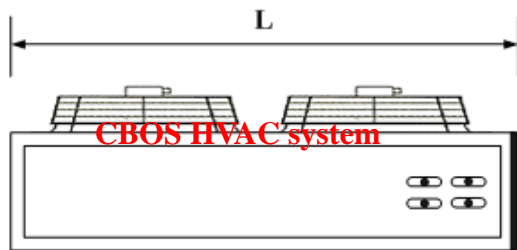
The unit for indoor
(Front view)
室内机 (前视图)



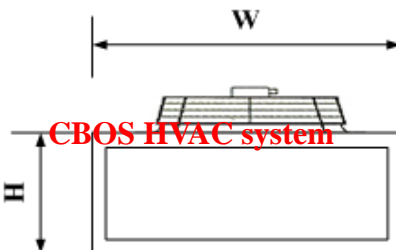
The unit for indoor
(Side view)
室内机 (侧视图)



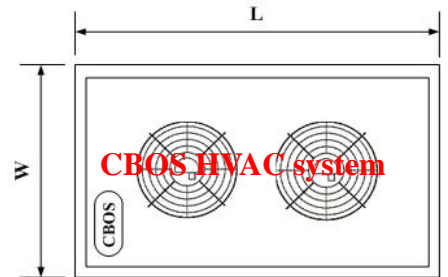
The unit for indoor
(Inner view)
室内机 (内视图)



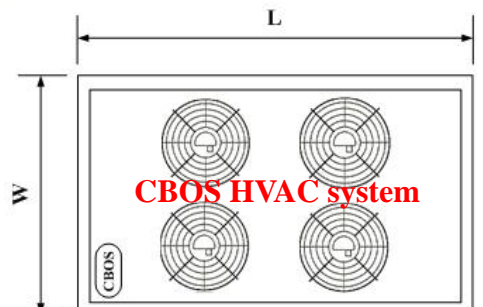
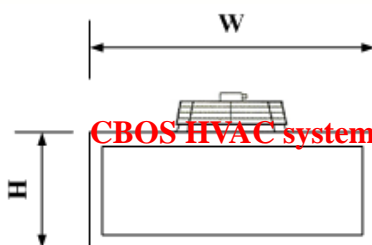
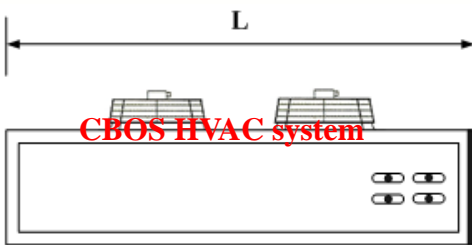
The unit for outdoor
(Front view)
室外机 (前视图)



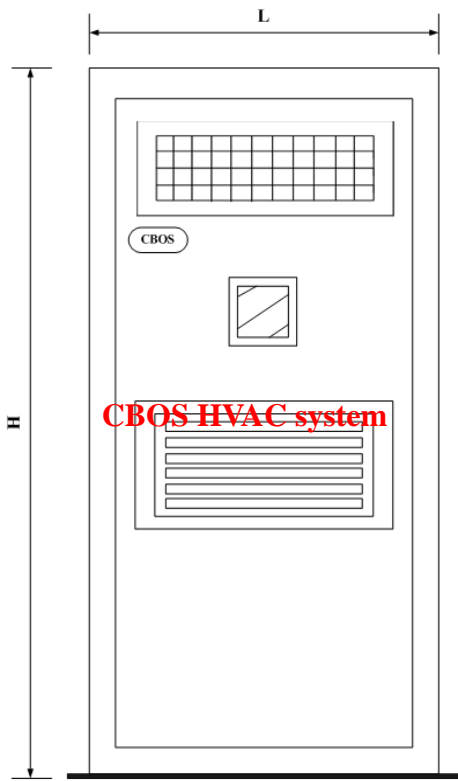
The unit for outdoor
(Side view)
室外机 (侧视图)



The unit for outdoor
(Vertical view)
室外机 (俯视图)



P.S. The parameters for length (L), width (W), and height (H) are varied with different models. Please check specifications of dimensions in previous pages for more details.
备注: 长度 (L)、宽度 (W)、和高度 (H) 的参数会随不同的型号而改变。更多的细节请参考前面页面尺寸规格的部份。



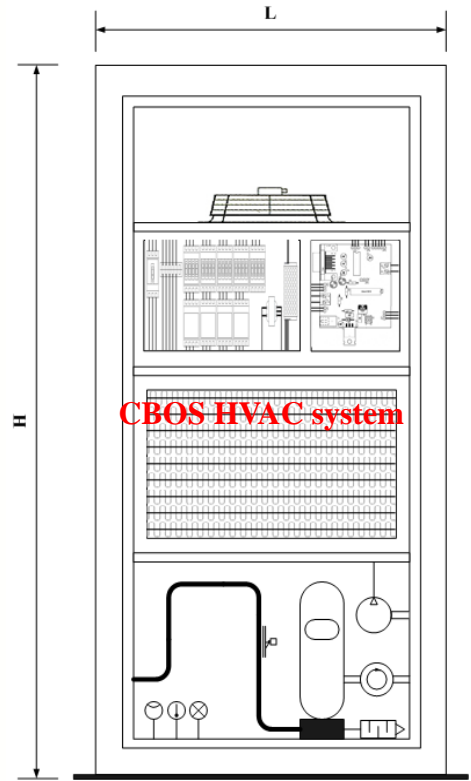
CBOS HVAC system

The unit for indoor
(Front view)
室内机 (前视图)



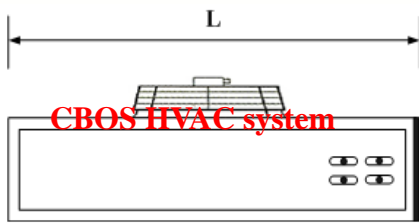
CBOS HVAC system

The unit for indoor
(Side view)
室内机 (侧视图)



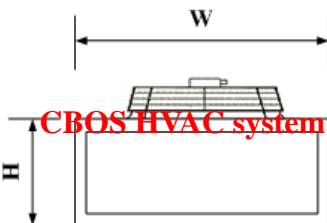
CBOS HVAC system

The unit for indoor
(Inner view)
室内机 (内视图)



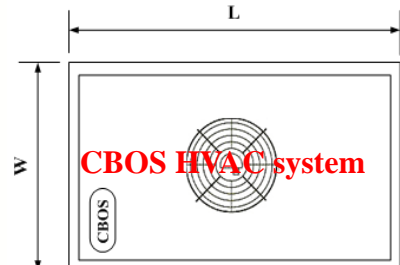
CBOS HVAC system

The unit for outdoor
(Front view)
室外机 (前视图)



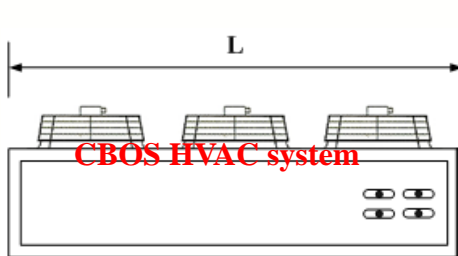
CBOS HVAC system

The unit for outdoor
(Side view)
室外机 (侧视图)



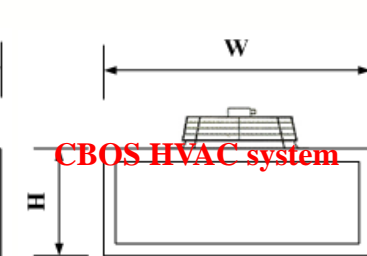
CBOS HVAC system

The unit for outdoor
(Vertical view)
室外机 (俯视图)



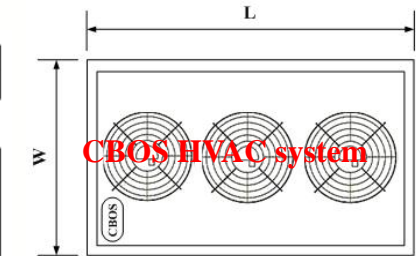
CBOS HVAC system

The unit for outdoor
(Front view)
室外机 (前视图)



CBOS HVAC system

The unit for outdoor
(Side view)
室外机 (侧视图)

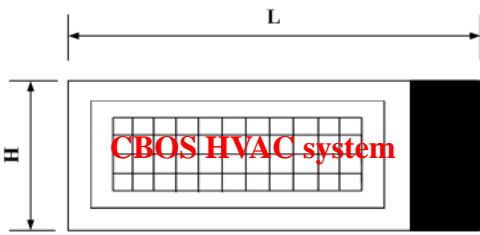


CBOS HVAC system

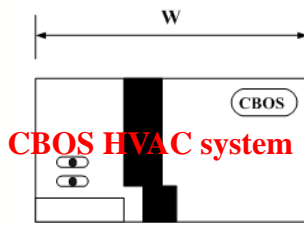
The unit for outdoor
(Vertical view)
室外机 (俯视图)

P.S. The parameters for length (L), width (W), and height (H) are varied with different models. Please check specifications of dimensions in previous pages for more details.

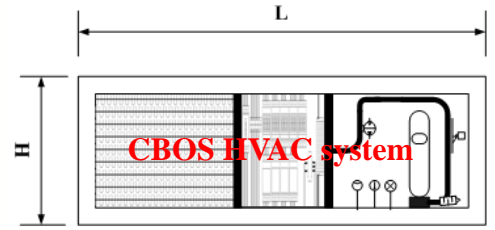
备注：长度 (L)、宽度 (W)、和高度 (H) 的参数会随不同的型号而改变。更多的细节请参考前面页面尺寸规格的部份。



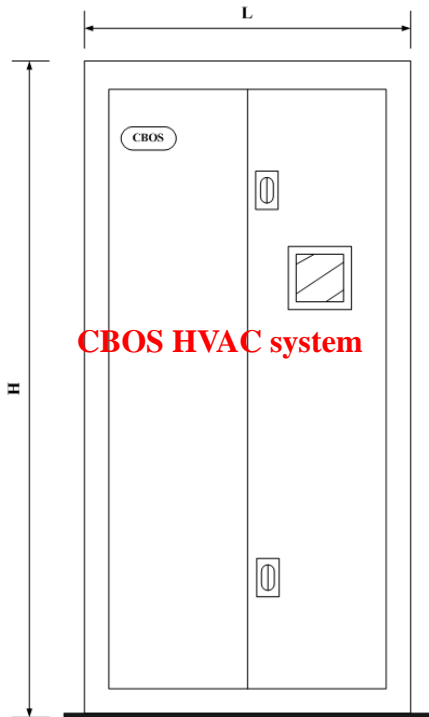
The unit for indoor
(Front view)
室内机 (前视图)



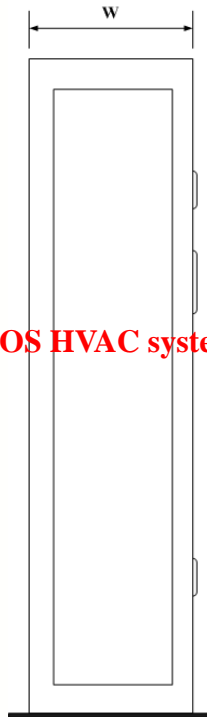
The unit for indoor
(Side view)
室内机 (侧视图)



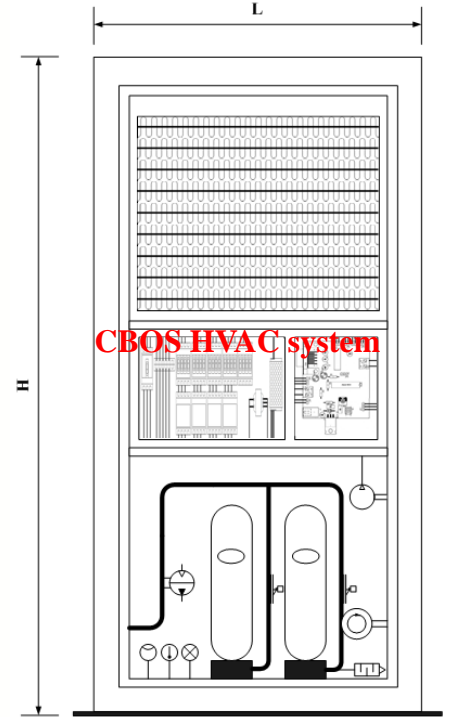
The unit for indoor
(Inner view)
室内机 (内视图)



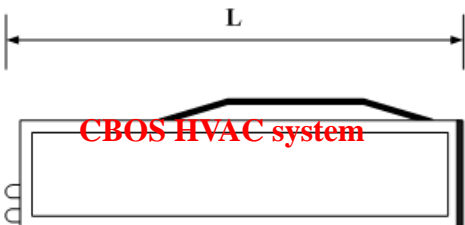
CBOS HVAC system



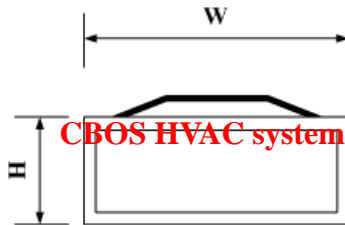
CBOS HVAC system



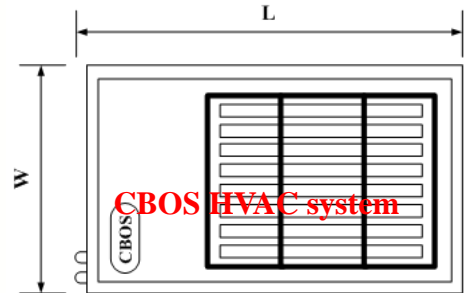
CBOS HVAC system



CBOS HVAC system



CBOS HVAC system



CBOS HVAC system

The unit for outdoor
(Front view)
室外机 (前视图)

The unit for outdoor
(Side view)
室外机 (侧视图)

The unit for outdoor
(Vertical view)
室外机 (俯视图)

P.S. The parameters for length (L), width (W), and height (H) are varied with different models. Please check specifications of dimensions in previous pages for more details.

备注：长度 (L)、宽度 (W)、和高度 (H) 的参数会随不同的型号而改变。更多的细节请参考前面页面尺寸规格的部份。



Air blowing (送风方式):



CBOS HVAC system

Cabinet: up outlet (blue)/down inlet (red)
柜式: 上送风下回风



CBOS HVAC system

Cabinet: up outlet (blue)/back inlet (red)
柜式: 上送风后回风



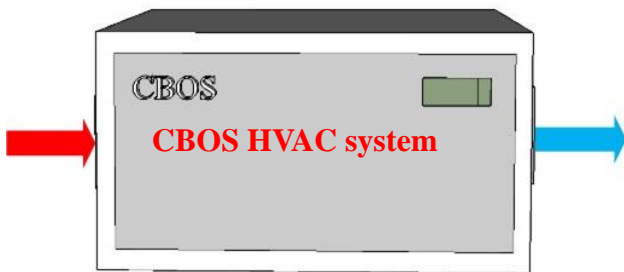
CBOS HVAC system

Cabinet: up outlet (blue)/front inlet (red)
柜式: 上送风前回风

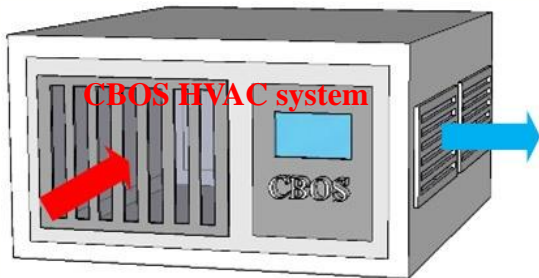


CBOS HVAC system

Cabinet: down outlet (blue)/up inlet (red)
柜式: 下送风上回风



Ceiling unit: side outlet (blue)/side inlet (red)
吊顶式: 侧送风侧回风



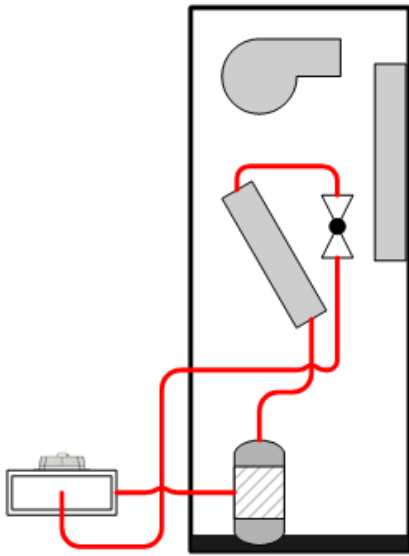
Ceiling unit: side outlet (blue)/front inlet (red)
吊顶式: 侧送风前回风



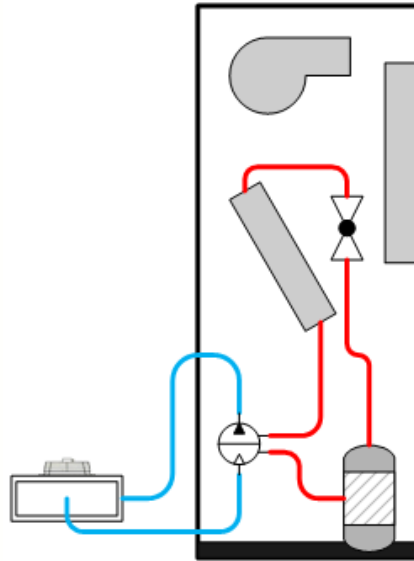
Cabinet: front outlet (blue)/front inlet (red)
柜式: 前送风前回风



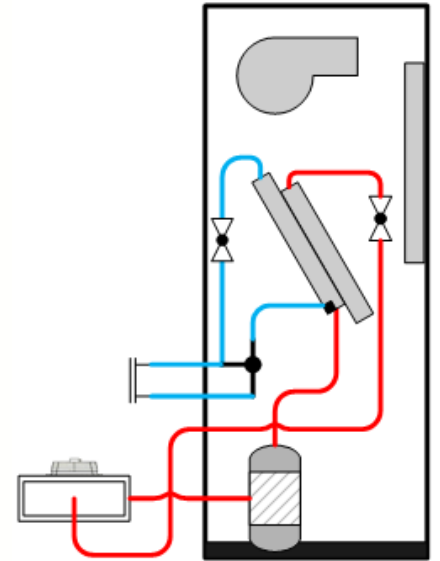
Functional schemes (功能性架构):



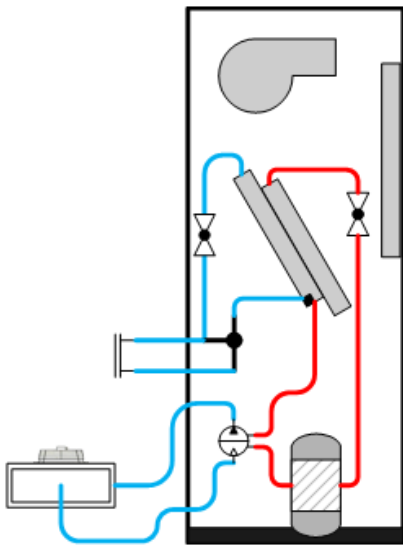
Air cooling
风冷



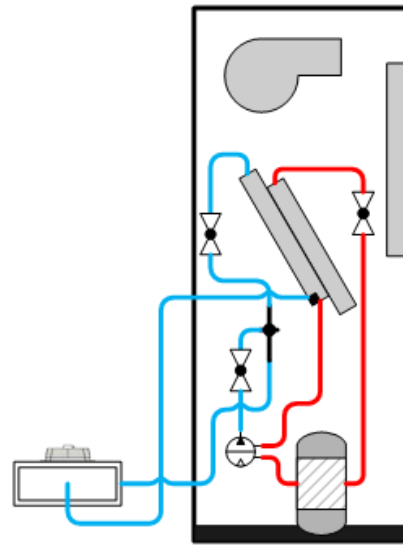
Water cooling
水冷



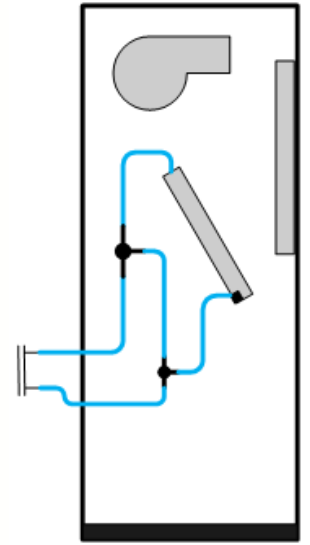
Air cooled dual-fluid
风冷双冷源



Water cooled dual-fluid
水冷双冷源



Free cooling
自由冷却



Chilled water
冷冻水

No one knows when or how disaster will strike. We just know the potential is always there, so preparation is crucial to minimizing its impact on computers, networks, users, and business. The Engineering Department of CBOS provides a series of solutions for the functional architecture of unit. Customers could choose one of the functional frameworks of unit according to the actual situation. If customers cannot make the choice, CBOS engineers will serve their needs in a professional point of view.

没有人知道何时或如何将走向灾难，我们知道可能性总是存在的，所以准备是对电脑、网络、用户和业务降低受灾难影响的重要关键。冷博的工程部门针对机组功能性架构提供了一系列的解决方案，客户可依实际的情况选择合适的功能性架构，若客户无法选择，冷博的工程师会以专业的角度提供客户所需的服务。



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flyawaysee

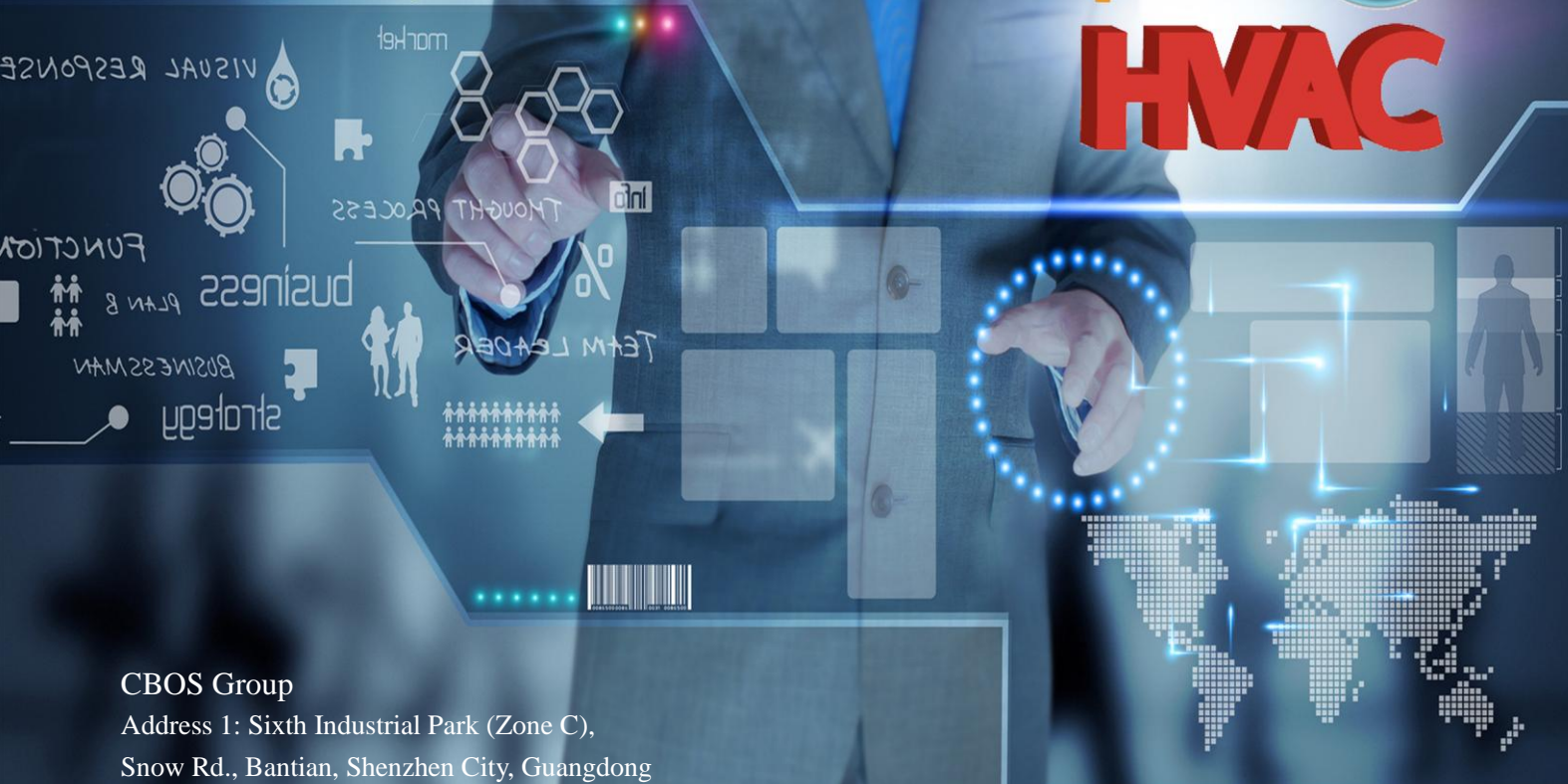
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