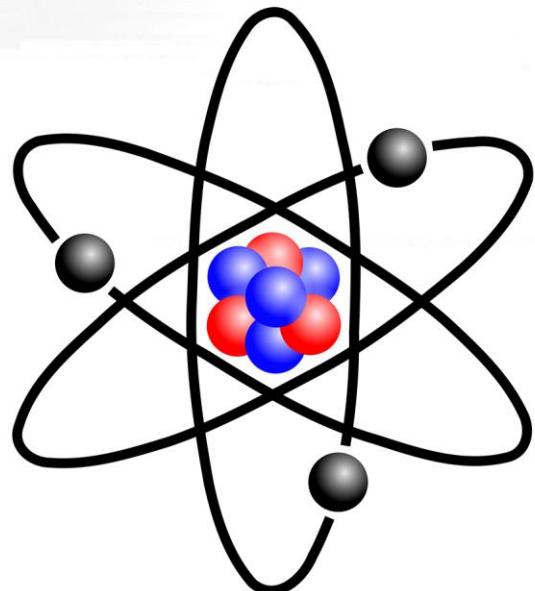


# HVAC System



Solutions for a small  
sized equipment room

小型机房解决方案



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# Technology FUTURE

## Features of S series (S 系列产品特点) :

S series 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. The unit includes the optimization and flexible structure system, 7-speed regulating plug type fan, interior flexible design, refrigeration loop up to a maximum length (50m) and height (30m), and Class 0 (A1 -EU) anti-fire panels. The full range of all modules is highly accuracy and adjustable air supply direction. The main component of all series modules is fixed inside the module with fan direction for meeting the requirement of top or bottom air supply. It is convenient installed and disassembled. The blowing machine is the fan driven design with high accurate temperature and humidity control ( $\pm 0.3^{\circ}\text{C}$ ;  $\pm 2\%$ RH).

S 系列是模块式专用空调，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。机组包括最优化和灵活的结构体系、7 速可调节插拔式风机、灵活的内部设计、制冷回路最长可达 50m 和高 30m、及 Class 0 (A1-EU) 防火面板。全系列所有机型均为高精度及可调节风向模块式专用空调。全系列主要部件均固定安装于模块内，风机方向可为满足上送/下送的要求变化。零件方便安装及拆卸。送风机型为风机推动式设计且有高精度的温度及湿度控制 ( $\pm 0.3^{\circ}\text{C}$ ;  $\pm 2\%$ RH)。

Environmental control: small computer room, communication base, marginal room, small outdoor room, base station, access network room, microwave station, remote sensing receiving station, local hot spot area and etc.

环境控制领域：小型计算机房、通信机房、边际网机房、小型户外机房、基地台、接入网机房、微波站、遥感接收站、机房局部热点处理等。

### Advantages: (特点)

- Advanced intelligent control technology (先进智能化控制技术)
- Highly reliable (高可靠性)
- Fully front maintenance (全正面维护)
- Network management function (网络管理功能)
- High SHR (高显热比)
- Advanced microcomputer controller (先进的微电脑控制器)
- Structure design for easy operation and maintenance (易操作维护的结构设计)
- High efficient compressor (高效压缩机)
- Step less and low noise air-cooling condenser (无级调速低噪风冷冷凝器)
- EC fan (EC 风机)
- Unit with humidifying function (加湿功能的机型)
- Unit with heating function (加热功能的机型)
- Air filter (空气过滤器)
- The unit can adapt to outdoor environment very wide. The general model is suitable for the temperature from  $-15^{\circ}\text{C}$  to  $+45^{\circ}\text{C}$ , and the LEE-TEMP model is good for the temperature from  $-34^{\circ}\text{C}$  to  $+45^{\circ}\text{C}$ . The heating is not affected by temperature conditions. (可适应极宽温度的室外环境。普通型在  $-15^{\circ}\text{C} \sim +45^{\circ}\text{C}$  范围内工作，LEE-TEMP 机型在  $-34^{\circ}\text{C} \sim +45^{\circ}\text{C}$  范围内工作。加热不受温度条件限制。)
- 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  $\pm 0.3^{\circ}\text{C}$ ,  $\pm 2\%$ ). (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  $\pm 0.3^{\circ}\text{C}$ ,  $\pm 2\%$ )。)



# Technology FUTURE

## Electronically commutated technology (电子换向技术) :

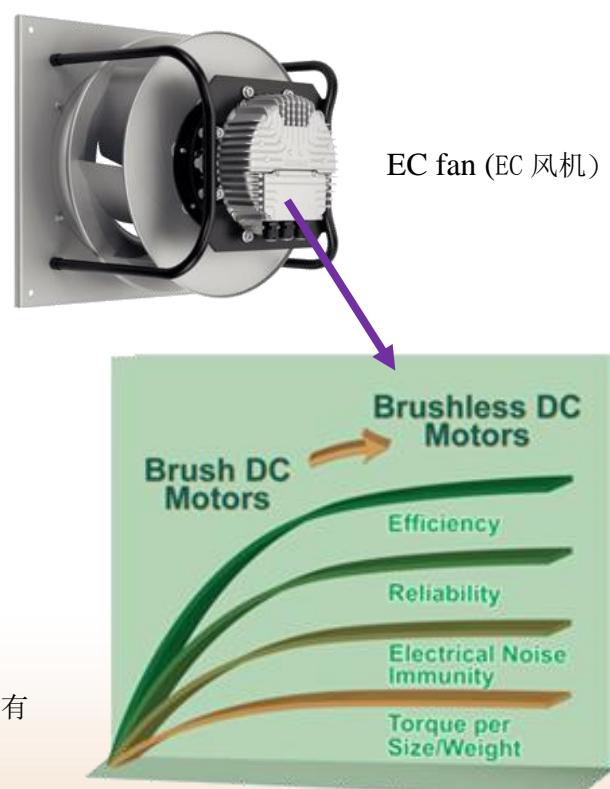
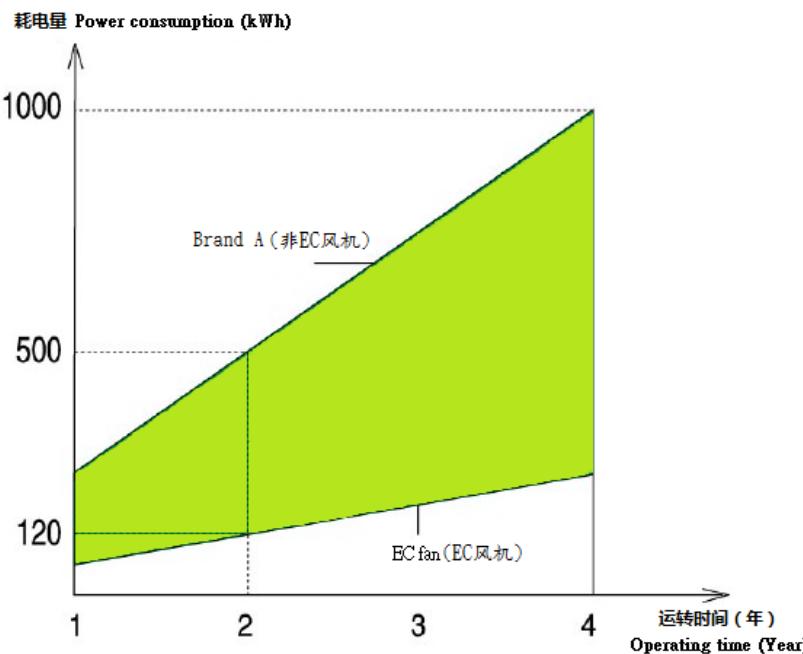
EC stands for Electronically Commutated, and it combines AC and DC voltages bringing the best of both worlds. The motor runs on a DC voltage, but with a single phase 230VAC or three phase 400VAC supply. The motor incorporates voltage transformation within the motor. The non-rotating part of the motor (stator) is extended to make room for an electronic PCB board which includes power transformation AC to DC, as well as the controls. EC 代表电子换向，它结合了交流和直流电压，使两全其美。电动机透过直流电压运行，而电源端可为单相 230VAC 或三相 400VAC。电压转换在马达电机内完成。电动机（定子非旋转部分）的延伸以腾出空间给一个电子 PCB 板，包括电力变换 AC 到 DC，及控制电路。

### Advantages of EC technology: (EC 技术的优势)

- Very high degree of efficiency (非常高的效率程度)
- Integrated controller (continuous control) (集成控制器 (连续控制))
- Very simple connection (很简单的连接)
- Additional functions (pressure control, etc.) (附加功能 (压力控制等))
- Smaller-sized motor for the same level of performance (相同的性能水平下使用较小尺寸的电动机)
- Less power consumption (耗电量少)

EC-fans have high energy saving potential under full load and especially under partial load. The efficiency losses are significantly lower than with conventional AC-motors at the same air flow. The improved energy efficiency results in fewer CO<sub>2</sub> emissions. In addition there are lower investment costs for speed control of the fan. Control transformer, VFD or phase angle controllers are not necessary. All necessary components are already contained in the EC-motor electronics. Modern EC-technology is not only easy on the wallet, but also on the environment. Below figure is showed the result of power consumption versus operating time for EC fan and non EC fan.

EC 风机具有在满载或部分负载下高节能的潜力。效率损失比传统的 AC 电机显著低，在相同的空气流量下。改进的能源效率导致更少的二氧化碳排放量。此外，对于风扇速度控制投资成本有显著的降低。控制变压器、VFD 或相位角控制器是没有必要使用的。所有必需的组件都已经包含在 EC 电机电子线路板上。现代 EC 技术不仅是省钱，而且对环境的友善。下图为 EC 风机与非 EC 风机运行耗电量比较。



Brush DC motors versus brushless DC motors (right figure) (有刷直流电机和无刷直流电机效能比较-右图)

# Technology FUTURE

## Advanced micro processing controller (先进的微处理器) :

Micro processing controller of S series is equipped with LCD display with backlight. Under normal circumstances, it can display the series number of unit, moisture and humidity of inlet, set point of temperature and relative humidity, operating status (refrigeration, heating, humidification, and dehumidification), fan status, and the variety of alarms. The informational controller displays the last 48 hours of temperature and relative humidity curve. The user-friendly menu allows the operator to easily query the status of the system. For example: high temperature, low temperature, high humidity, low humidity, air flow loss, replacing the air filter, high pressure alarm for the compressor, and etc. Multilevel password protection function includes the set point settings, alarm threshold settings, communication settings, and unit setting items. Built-in power saving function is allowed automatic stopping the unit when the input power is lower than the voltage setting. Backup battery installed in the control board recording the parameters of units prevents when the main power supply is failure. Each module of S series has internal controller independently, and according to the environmental conditions, each module is connected by the communication component. When a module has the alarm, the controller automatic starts standby module. The controller can also balance the cycle time of each module. The informational controller can be connected with PC through the RS232 interface for monitoring all data sets. By using the PC on site and the modulator can realize the remote monitoring for the unit. Open communication software is convenient for connecting to the building's control system, for example: JOHNSON, HONEYWELL, and etc.

S 系列的微处理器控制器配有带背景灯的 LCD 显示器。正常情况下，可以显示回风的湿度和温度、机组的序列号、设定点的温度和相对湿度、工作状态显示(制冷、加热、加湿、去湿)、风机状态、及各种报警。信息控制器显示最近 48 小时内的温度和相对湿度曲线。友好的用户操作界面使操作人员可以很方便的对系统和报警状态进行查询，例如：高温、低温、高湿、低湿、气流丢失、更换过滤器、压缩机超高压报警等等。具备多级密码保护功能，包括设定点的改变、报警阀值的设定、通讯设置、及机组设置等项目。内置的电源节省功能可以在输入电源低于允许的设定电压范围时自动关闭机组。安装在控制板上的备份电池可以当主电源出故障时，保存机组的设定参数和历史记录。模块化 S 系列每个都有独立的内部控制器，并且可以根据现场情况，将各模块通过通讯组件连接。当某一模块出现报警时，自动启动备用模块。并且可以使模块循环工作，平衡各模块的使用时间。信息控制器通过 RS232 接口连接 PC 可监控机组的所有数据。如采用了远程的 PC 及解调器可实现机组的远程监控。开放通讯软件方便与主要的楼宇自动控制系统相连接，例如：JOHNSON、HONEYWELL 等软件。



# Technology FUTURE

## Specifications for S series (S 系列规格):

### Direct expansion air cooling (直接膨胀风冷型):

U/O/D/G/K/L AW		S03	S04	S05	S07	S10	S12	S13	S16	S17
Wind rate (风量)	m <sup>3</sup> /h	1050	1350	1550	2300	2800	2900	4600	4800	5250
Total cooling cap. (总冷量)	kW	2.7	4.4	5.5	8.1	10.4	13.4	14.3	16	16.9
Humidity cap. (湿冷量)	kW	2.6	4.3	5.2	7.6	10.0	12.5	13.7	15.2	16.1
Hud. Heat ratio (湿冷比)		0.98	0.98	0.95	0.94	0.96	0.93	0.96	0.95	0.95
Efficiency (效能比)		3.32	3.33	3.37	3.38	3.71	3.47	3.88	3.77	3.76
Max. pre. (below) (最大静压-下送风)	Pa	120	200	170	240	130	180	280	250	220
Max. pre. (above) (最大静压-上送风)	Pa	120	250	180	240	130	180	280	250	220
Noise (below) (下送风)	dB(A)	42.5	45.5	45.0	47.3	48.2	50.5	49.0	49.1	49.2
Noise (above) (上送风)	dB(A)	42.9	45.9	47.4	50.1	51.3	53.5	51.4	51.4	51.3
Electrode (电加热)	kW	1.95	1.95	1.95	4.5	4.5	4.5	5.85	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	9.0	9.0	9.0
Power of hum. (加湿功率)	kW	1	1.5	1.5	3.0	3.0	3.0	5.8	5.8	5.8
冷却水数据 (针对 W 型, 30°C 进水, 45°C 冷凝温度) cooling water data (W type: 30°C inlet; condensing temperature: 45°C)										
Flow rate (冷却水流量)	l/s	0.12	0.15	0.28	0.20	0.26	0.31	0.33	0.38	0.41
Pressure (冷却水压降)	kPa	1	1	4	8	13	18	8	10	11
Total power (最大总耗电量)	kW	3	3.3	3.6	7.3	8.1	9.6	9.7	10.1	10.9

U/O/D/G/K/L AW		S18	S20	S21	S23	S25	S29			
Wind rate (风量)	m <sup>3</sup> /h	5400	5800	6100	6150	7000	7800			
Total cooling cap. (总冷量)	kW	18.4	20.1	22.6	25.6	26.4	29.1			
Humidity cap. (湿冷量)	kW	17.4	19.1	20.4	23.1	23.8	26.2			
Hud. Heat ratio (湿冷比)		0.95	0.95	0.90	0.90	0.90	0.90			
Efficiency (效能比)		3.43	3.32	3.41	3.41	3.37	3.33			
Max. pre. (below) (最大静压-下送风)	Pa	280	400	250	270	260	280			
Max. pre. (above) (最大静压-上送风)	Pa	280	400	250	270	260	280			
Noise (below) (下送风)	dB(A)	50.5	51.5	53.9	54.4	55.2	57.1			
Noise (above) (上送风)	dB(A)	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			
Electrode grade (电加热级数)		3	3	3	3	3	3			
Humidity (加湿量)	kg/h	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			
冷却水数据 (针对 W 型, 30°C 进水, 45°C 冷凝温度) cooling water data (W type: 30°C inlet; condensing temperature: 45°C)										
Flow rate (冷却水流量)	l/s	0.45	0.50	0.63	0.67	0.76	0.83			
Pressure (冷却水压降)	kPa	13	16	25	27	30	36			
Total power (最大总耗电量)	kW	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 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。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整节省 20-30% 的能耗，因此避免过度除湿和送风带雾的现象。

# Technology FUTURE

## Water cooling (冷冻水型):

U/O/D/G C		S06	S08	S11	S15	S18	S29	S31
Wind rate (风量)	m <sup>3</sup> /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. (湿冷量)	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

Our company 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.

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：全部至关重要的冷却电路部分、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 <sup>3</sup> /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. (湿冷量)	kW	15.0	17.4	20.4			15.4	17.8	22.0
Hud. Heat ratio (湿冷比)		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。

# Technology

FUTURE

The unit is used the high efficient Copeland vortex type scroll compressor (Copeland is the largest vortex compressor factory in the world). The active components of vortex compressor reduce the unit's noise and vibration a lot. The compression process is continuous and stable. The exhaust process rotates angle more than 540 degrees. In the suction and compression process there is no heat exchange. The direction of refrigerant flow does not change during the compression process. Reducing the flow loss lets the vortex compressor without using the high and low pressure valves. Reducing the volume loss of patent valve, and dynamic and static vortex technology can effectively prevent the liquid hammer and lower starting current. The energy efficiency ratio is the highest and is reaching to 3.4 comparing with similar compressors.

应用高能效比的谷轮涡旋式压缩机(Copeland 世界上最大的涡旋式压缩机生产厂)。涡旋压缩机的活动部件大大降低机组的噪声及震动；压缩机的压缩过程连续平稳；压缩机的排气过程旋转角度超过 540 度；在吸气及压缩过程中没有热量的交换；在压缩过程中，制冷剂流向没有改变；涡旋式压缩机减少气流损失，因此无需高、低压阀门；阀门专利减少容积损失和动、静涡旋脱离技术可有效防止液击及启动电流过低的现象。能效比最高且达到 3.4 相较于同类型压缩机。

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	450	1800	140
S04	650	450	1800	160
S05	650	450	1800	170
S07	650	450	1800	195
S08	700	600	1800	205
S10	700	600	1800	210
S12	700	600	1800	215
S13	700	600	1800	240
S16	700	600	1800	245
S17	700	600	1800	250
S18	700	600	1800	255
S20	1200	800	1800	260
S21	1200	800	1800	265
S23	1200	800	1800	270
S25	1200	800	1800	280
S29	1200	800	1800	290
C				
S06	650	450	1800	135
S08	700	600	1800	150
S11	700	700	1800	165
S15	700	600	1800	190
S18	700	600	1800	210
S29	1200	800	1800	230
S31	1320	860	1800	260



Structure design for easy operation and maintenance: The unit with compact structure is required less space for repairing and is fully front maintenance. Front panel design is easy to open, convenient to maintain and easy to install. Air speed is automatic adjustable.

机组结构紧凑只需很小的维修空间及地面空间，机组为全正面维护。前面板设计易打开、方便维护、及安装灵活等。送风风速自动调节。

The air filter is standard which can guarantee to meet the requirements of cleanliness in the room.  
配置标准的空气过滤器，可保证机房达到要求的洁净度。

## 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. (湿冷量)	kW	2.6	3.6	5.2	7.9	10.1	13.2	14.9	16.7	19.9	21.5	24.2
Hum. Heat ratio (湿热比)		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 <sup>3</sup> /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 <sup>3</sup> /h	1000	1250	1350	2000	2800	4200	5100	5400	6200	7200	8000
Max. pre. (最大风压)	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)	°C	+/-0.5										
Hum. Acc. (湿度控制精度)	%	+/-3										
Length (长度)	mm	700	900	900	910	970	970	970	970	970	970	970
Width (宽度)	mm	650	700	700	900	900	900	900	900	900	900	900
Height (高度)	mm	560	560	560	560	560	560	560	560	560	560	560
Weight (重量)	kg	56	56	56	62	62	62	62	65	66	67	69

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.

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板上。机组同时配有一个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。当烟感探测器检测到烟雾时，机组立即关闭主风机，并同时发出报警声。



# Technology FUTURE

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 <sub>Δ n=0.3A(400V)</sub>	Min. cable diameter (最小电缆线直径) (mm)
S03/S04/S05/W03/W04/W05	12×1	12×1	16.9	32A	6
S07/W08	16×1	12×1	17.5	32A	6
S10/W10	16×1	12×1	18.5	32A	6
S12	16×1	12×1	20	32A	6
S13/W13	18×1	16×1	22	32A	6
S16/S17/S18/W16/W18	18×1	16×1	24	32A	10
S20/S21/W21	18×1	16×1	28	50A	10
S23/W23	18×1	16×1	30	50A	10
S25/M25/W26	22×1	18×1	31	50A	10
S29/M29	22×1	18×1	43.1	50A	10
M32	22×1	18×1	45.2	50A	10
M34	18×1	16×1	45.4	50A	16
M35	28×1	22×1	47.9	63A	10
M41	28×1	22×1	52.7	63A	16
M42	22×1	18×1	46.8	63A	16
M47	28×1	22×1	57.5	63A	16
M50	22×1	18×1	64.5	80A	25
M58	22×1	22×1	68.3	80A	25
M66	28×1	22×1	69.3	80A	25
28A/W/F/D/H	22×1	18×1	45.2	50A	10
34A/W/F/D/H	28×1	22×1	47.9	50A	10
40A/W/F/D/H	28×1	22×1	52.7	63A	16
26A/W/F/D/H	18×1	18×1	40.2	50A	16
32A/W/F/D/H	18×1	18×1	44.4	50A	16
42A/W/F/D/H	22×1	18×1	46.8	63A	16
46A/W/F/D/H	22×1	18×1	55.2	63A	25
55A/W	22×1	18×1	69.3	80A	25
65A/W	28×1	22×1	69.3	80A	25
81A/W	28×1	22×1	75.2	100A	35
99A/W	28×1	22×1	83.6	100A	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。



# Technology FUTURE

## 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	780	260	540	45
S05/S07/W05	840	285	610	50
S08/W08	830/880	310/360	710/800	52/55
S10/W10	880	360	800	55
S12/S13/W13	830/930	310/390	1260/1270	60/64
S16/S17/S18/W16/W18	930	390	1270	68
S20/S21/S23/S25/M25/P06/W21/W23/W26	1220	450	1180	80
S20/S21/S23/S25/M25/P06/W21/W23/W26 (Optional)	940	1120	935	83
S29/M29/P07/P08/P09/E08/26U/28U	1220	450	1180	95
S29/M29/P07/P08/P09/E08/26U/28U (Optional)	940	1120	1195	99
M32/M34/M35/P10/32U/34U	1500	450	1180	130
M32/M34/M35/P10/32U/34U (Optional)	940	1120	1195	133
M41/M42/Q11/P11/E14/42U	1500	450	1425	149
M41/M42/Q11/P11/E14/42U (Optional)	1190	1190	1425	154
M47/M50/Q14/P16/40U	2165	450	1180	168
M47/M50/Q14/P16/40U (Optional)	1880	1120	1030	172
M58/P17/E16/E17/46U/55U	2165	450	1180	184
M58/P17/E16/E17/46U/55U (Optional)	1880	1120	1030	189
Q17/E18	2400	450	1180	246
Q17/E18 (Optional)	1880	1120	1195	252
M66/Q19/65U	2640	450	1180	260
M66/Q19/65U (Optional)	1880	1120	1195	268
L83U	2820	1120	1030	281
Q22/Q25U	2820	1120	1195	293
L99U/Q29U	2820	1120	1195	311

P.S. (备注): The parameters for non-standard products do not show 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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