

# CYZ

## 组合式(净化)空调机组

*Purifying & Combination  
air conditioner*



地址：南京市中山科技园和鑫路8号  
电话：025-57673939（总机） 025-57673166（直线）  
传真：025-57673166

[www.中央空调.top](http://www.中央空调.top)  
[www.njcykt.com](http://www.njcykt.com)



CHUANGYUAN.CYZ.第四·2版 2019.06第二次印刷 印数800

- 本公司保留优化及改进产品设计恕不预先通知的权利。
- 选型时欢迎垂询本公司，以便获得最新资料。



*Creating green environment,  
building energy-saving source*



Creating green

environment,

Building energy - saving

source

生产许可证编号 : XK06-015-00824



XK06-015-00824



GB/T 19001-2008 GB/T 24001-2004 GB/T 28001-2011

## 目录 Contents

- 2 概述
- 2 CYZ系列组合式(净化)空调机组的特点
- 3 CYZ系列组合式(净化)空调机组的设计制造水平
- 4 型号命名
- 4 机组左右式判定方法
- 5 标准机型快速选型表
- 6 功能段分类表
- 7 标准机型性能参数表—制冷回风工况
- 8 标准机型性能参数表—制冷新风工况
- 9 标准机型性能参数表—热水制热回风工况
- 10 标准机型性能参数表—热水制热新风工况
- 11 标准机型外形尺寸
- 12 各功能段的外形尺寸及技术性能
- 14 过滤段
- 15 中国、美国、欧洲效率规格对照表
- 15 洁净度、通风参数与过滤效率
- 16 排风新风段
- 17 表冷挡水段
- 18 加热段
- 20 电加热段
- 21 风机段
- 22 加湿段
- 27 消声段
- 28 喷淋段
- 29 热回收段
- 33 常见功能段组合方式(一)
- 34 常见功能段组合方式(二)
- 35 段长尺寸表
- 36 功能段空气阻力表
- 37 常见功能段重量表(kg)
- 38 常见功能段重量表(kg)(续)
- 40 其他非标组合式(净化)空调机组
- 41 使用须知
- 42 安装、运行和维护
- 44 CYZ组合式(净化)空调机组订货附件(附录1)
- 46 常用单位换算(附录2)

- 2 Description
- 2 CYZ series of (purification) modular air-conditioning unit features
- 3 CYZ series of (purification) modular air-conditioning unit design and manufacture level
- 4 Model description
- 4 Method to judge air condition unit left type and right type
- 5 Standard mode quick selection table
- 6 Functional section classification table
- 7 Standard model performance parameters table-cooling return air working condition
- 8 Standard model performance parameters table-cooling fresh air working conditions
- 9 Standard model performance parameters table-hot water heating return air working conditions
- 10 Standard model performance parameters table-hot water heating fresh air working conditions
- 11 Standard model overall dimension
- 12 Each functional section overall dimensions and technical performance
- 14 Filter section
- 15 China, the United States, European efficiency specifications table
- 15 Cleanliness, ventilation parameters and the filtration efficiency
- 16 Exhaust and fresh air section
- 17 Cooling coil with eliminator section
- 18 Heating section
- 20 El-heating section
- 21 Fan section
- 22 Humidifier section
- 27 Muffler section
- 28 Spray section
- 29 Heat recovery section
- 33 Common functional section compound mode (a)
- 34 Common functional section compound mode (b)
- 35 Section length dimension table
- 36 Functional section air resistance table
- 37 Common functional section weight table (kg)
- 38 Common functional section weight table (kg) continued
- 40 Other non-standard (purification) modular air-conditioning unit
- 41 Use instructions
- 42 Installation, operation and maintenance
- 44 CYZ series of (purification) modular air-conditioning unit order accessories (Appendix 1)
- 46 Common unit conversion (Appendix 2)



## 概述 Description

本公司具有完善的空调实验、检测设备，设有三维、CAD计算机辅助设计工作站。CYZ系列组合式(净化)空调机组采用模数化设计，结构简单，机组灵活，并可以按用户要求设计专用组合式(净化)空调机组，设计周期短、可靠性高。创元组合式(净化)机组采用三维、CAD计算机辅助设计，并根据大量实验数据开发了空调机组表冷器、加热器热工计算软件。产品应用先进的生产线生产箱体、换热器、骨架、构件等，广泛应用于舒适性空调、工艺性空调及空气净化处理。

The coMPAny has improved air conditioning experiments, testing equipment, with three-D, CAD computer-aided design workstation, CYZ series of (purification) modular air-conditioning unit use of modular design, simple structure, and very flexible, you can choose special air condition unit according to your requirements, design cycle is short, and high reliability. Create three-D element air condition unit, CAD computer-aided design, and developed its own form of cold air condition unit, heater thermal calculation software, products widely used central air conditioning terminal field. The production use advanced production line to make the box, heat exchanger, frame, components and so on, Widely used in comfort air conditioning, industrial air conditioning and air purification process.

## 创元组合式(净化)机组的特点

CYZ series of (purification) modular air-conditioning unit features

- 优质—先进的生产线保证了产品的高水准、高质量；  
Quality - advanced production lines to ensure the products of high standard, high-quality;
- 可靠—组合式空调机组经热工测试和计算机精密计算，保证了创元CYZ空调(净化)机组设计的严格标准和制造的高质量要求；  
Reliable - air condition units have thermal testing and computers precise calculation to ensure of air conditioning design element with strict quality standards and high quality manufacturing requirements;
- 创新—盘管表冷器采用新型翅片设计，降低风阻力，减少电能消耗，多种回路设计，适应不同的运行工况，降低水阻力，提高换热效率，倾斜式样保温水盘，保证凝结水迅速排除，使水盘保持干式状态。  
Innovation - finned coil puts forward a new design, reduce the air resistance, reduce the energy consumption of the motor, a variety of circuit design, adapt to different operating conditions, reduce water resistance, increase in thermal efficiency, tilting insulation water dish, ensure the condensate quickly ruled out, keep the water tray dry state.

• 优材—采用优质板材以及高绝热的高压聚氨酯硬质发泡保温材料，保证箱体的耐压、密封、隔热和强度的良好性能。  
Excellent material - made of high quality metal sheet and high-pressure polyurethane rigid insulation foam materials to ensure that the box can bear high pressure, seal, good thermal insulation and strength.

- 简单—模数化设计、整机或散件出厂，现场快速组装、便于维修和保养容易，达到选用简便、维护保养简单；  
Simple - the modular design, whole set or components delivery ,site rapid on-site assembly, maintenance simple and easy to maintain, easy to use, the combination of simple, easy maintenance;
- 弹性—除标准模数设计外，可按用户独有需求进行非标设计，可最大限度满足用户的各种场合；  
Flexibility - besides standard module design, the non-standard product can be designed by the user's unique needs, can best meet the user's various occasions;
- 服务—保用一年、提供终身维修服务、公司为每位用户建档。  
Service - one year warranty and provide lifetime maintenance services, the coMPAny filing for each user.

## CYZ组合式(净化)机组的设计制造水平

CYZ series of (purification) modular air-conditioning unit design and manufacture level

- 新技术、新构思  
• New technology, new ideas

CYZ型系列组合式(净化)机组以高水准的四条引进生产线和卓越的设计、精密的制造来保证可靠的性能。经过五代改进推出全新设计，CYZ系列组合式(净化)空调机组融入新型平面密封、高绝热复合壁板、低风阻的国际水准表冷器于一体。组合式空调机组可以分段出厂、整机出厂，也可以组件出厂，现场精密组装。

CYZ series of (purification) modular air-conditioning unit use four high standard imported production lines and excellent design, precision manufacturing to ensure the reliable function. we launched a new design after five times' reformation, CYZ series of (purification) modular air-conditioning unit put into the new flat sealing technology, high thermal insulation composite panel and low air resistance in the international standard cooler. Air condition unit can be set out of the factory in segments or the whole machine and can also be components, on-site precision assembly.

- 旋转稳定可靠  
• Stable and reliable operation

结构设计以简单、可靠的组合保证了组合式(净化)机组高效率的工作；优性能高绝热复合壁板克服了组合式(净化)机组上难以解决的冷桥现象，优良的减振系统保证了空调机组的平稳运行。

Combined with simple and reliable design to ensure the air condition unit work in a high efficient; excellent high-performance thermal insulation composite panels overcome the difficulty to resolve the phenomenon of cold bridges on the air condition unit, excellent damping system ensures smooth operation of the air condition unit.

- 宁静的运行  
• Quiet operation

低噪声运行是创元公司的宗旨、创元空调首选国产优质风机，如用户特殊有需要，也可以配用进口优质品牌风机，如科禄格等。

Low noise operation is the goal of our coMPAny. We choose high-quality air-conditioning fans, if the user has special need, imported high quality brand fans will be equipped with, such as Kruger and so on.

- 客户的需要是公司追求的目标  
• The needs of customers is the goal of our coMPAny

全新的表冷器生产线可以提供多种表冷器、加热器规格以满足客户，热工性能计算软件可快速为表冷器热工数据提供设计计算，以及满足客户特殊要求的设计计算。

The new production line of coolers can provide a variety of coolers, heaters to meet customers' special requirement, Thermodynamic performance calculation software quickly provide the cooler thermal data for the design calculations, and to meet the customers' special requirements of design and calculation.

- 使用寿命长  
• Long service life

聚氨酯发泡箱板无需经常表面维护，十五年寿命理想使用。

Polyurethane foam box plate surface without regular maintenance, the ideal using is fifteen years.









## 注 Note :

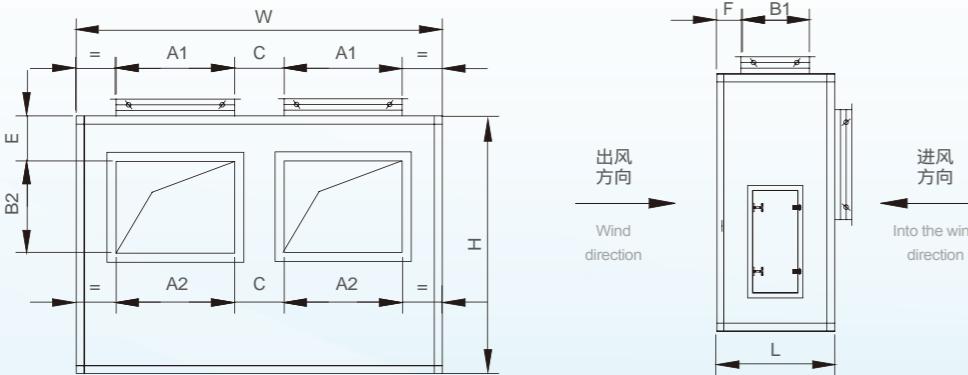
- 以上机组高度尺寸H不包含底座高度尺寸G。  
The above unit height dimension H does not contain the base height dimension G.
- 吊顶式机组和25000m³/h以下风量机组底座高度采用80mm,25000m³/h到90000m³/h风量机组底座高度采用100mm , 90000m³/h以上风量  
机组底座高度采用120mm。  
Ceiling type unit and the unit which air volume is below 25000m³/h, base height using 80mm.from 25000m³/h to 90000m³/h air volume base height is 100mm,above 90000m³/h air volume base height using 120mm.
- CYZ机组采用模数化设计，断面尺寸模数1M=102mm  
CYZ unit adopts the modular design, section size module 1 m = 102 m
- 机组高度H=高度模数×102+50+K  
The unit height H = height modulus x 102 + 50 + K
- 机组宽度H=宽度模数×102+50+K  
The unit width H = width modulus x 102 + 50 + K
- K值根据机组面板尺寸，25mm面板为46mm , 35mm面板为66mm , 50mm面板为96mm。  
The value of K selected according to the unit panel size, K value 25 mm panel is 46 mm, 35 mm panel is 66 mm, 50 mm panel is 96 mm.
- 段长尺寸模数1M=100mm , 机组总长度=各个分段模数之和×100。  
Section length dimension module 1 M = 100 mm, the total length of the unit = the sum of each section modulus by 100.

## 各功能段的外形尺寸及技术性能

Each functional section overall dimensions and technical performance

## 进风段/混合段/出风段

air-inlet section/ mixing section/air-outlet section



型号 CYZ-model CYZ-	名义风量 m³/h rated air volume m³/h	尺寸 ( mm ) Dimension						
		L	A1	B1	A2	B2	C	E
03-0509	3000	6M	500	400	500	400	-	200
04-0609	4000	6M	600	400	600	400	-	200
05-0612	5000	6M	700	400	700	400	-	200
06-0810	6000	6M	700	500	700	500	-	200
07-0812	7000	6M	600	500	600	500	-	200
08-0912	8000	6M	800	500	800	500	-	200
09-0815	9000	6M	1000	500	1000	500	-	200
10-0915	10000	7M	1000	600	1000	600	-	200
12-0917	12000	7M	800	600	800	600	-	200
15-1118	15000	7M	800	600	800	600	-	200
18-1218	18000	7M	1000	600	1000	600	-	200
20-1220	20000	7M	1000	600	1000	600	-	200
25-1323	25000	7M	1250	600	1250	600	-	200
30-1523	30000	7M	1250	600	1250	600	-	200
35-2020	35000	9M	1600	800	1600	600	-	200
40-2024	40000	9M	1600	800	1600	600	-	200
45-2323	45000	9M	1600	800	1600	600	-	200
50-2226	50000	9M	2000	800	2000	600	-	200
55-2427	55000	9M	2000	800	2000	600	-	200
60-2431	60000	9M	2000	800	2000	600	-	200
70-2631	70000	9M	2500	800	2000	600	-	200
80-2634	80000	9M	2500	800	2000	800	-	200
90-2540	90000	9M	2500	800	2000	800	-	200
100-2840	100000	11M	2500	1000	2500	1000	-	200
120-3540	120000	11M	3000	1000	2500	1000	-	300
140-3648	140000	11M	1800	1000	1250	1000	250	300
160-3654	160000	11M	2000	1000	1250	1000	250	300
180-3463	180000	11M	2500	1000	1600	1000	250	300
200-3665	200000	11M	2500	1000	1600	1000	250	300
240-3872	240000	13M	2500	1200	2000	1200	250	300
								60

## 注 Note :

- 以上机组高度尺寸H不包含底座高度尺寸G。  
The above unit height dimension H does not contain the base height dimension G.
- 混合段新、回风口标准配置为法兰接口，如用户要求配阀门，可配手动对开多叶密闭阀，也可配电动风阀满足自控要求，风阀的材料为镀锌板或铝合金可选。  
Fresh air inlet and return air inlet in the mixing section is flanged connections, return air mouth standard for flange interface, if user need valve, can be equipped with multi-leaf containment valves, and also with electric air valve to meet the requirements of the automatic control, the material of the valve is galvanized sheet or aluminum alloy for option.
- 进风时 , A1 × B1为新风阀通风截面积 , A2 × B2为回风阀通风截面积 , 出风时两个风口取一个。  
When the intake air, A1 × B1 is fresh air valve sectional area, A2 × B2 is return air valve sectional area, When the wind out, take one from the two outlet.
- 如按图进风方向所示气流形式，则为进风混合段，如按出风方向所示气流形式，为出风段。当按出风段时，如为平出风方式，无需出风口，为顶出风方式时，无侧面出风口。  
As shown in Figure , if the airflow form flow along the inlet airflow direction is the inlet air mixing section, as the airflow form flow along the outlet airflow direction is the outlet air section. When in accordance with air outlet section, if it is flat air out way, no outlet, is the top air out mode, no side outlet.
- 以上尺寸仅供参考，详细的定位尺寸请按创元公司实际选型为准。  
The data in the table is for reference only, please contact ChuangYuan Marketing department at the actual selection.

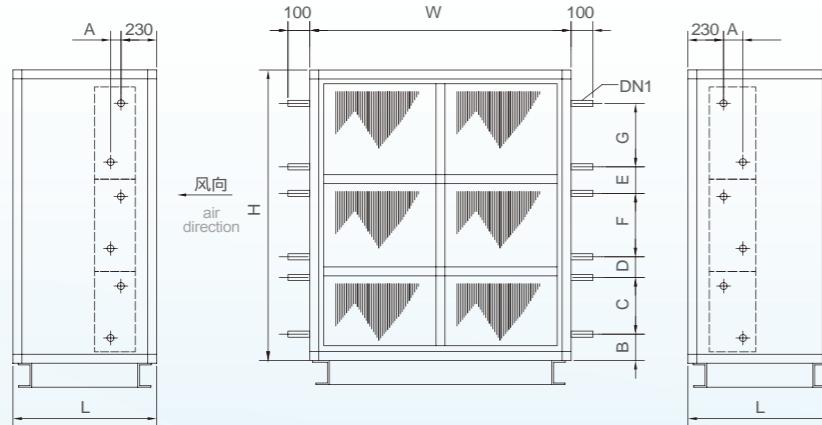




## 注 Note :

- 表冷段具有冷却、挡水功能，底部设有倾斜式排水管，保证内部不积水。表冷器系钢管串铝片经集束式一次机械胀管工艺加工而成。  
Cooler section has cooled, water retaining function, tilting drain on the bottom to assure that no water inside.  
Cooler coil is copper tube string aluminum sheet which processed by a mechanical expanding technology clustered together.
- 水盘采用电镀锌板表面喷涂，如需其它材料请订货时说明。  
Water pan uses electric galvanized sheet, surface spraying, if you need other materials please point out in order.
- 当迎面风速大于2.65m/s或断面高度比较高时，表冷器后应选用挡水装置，创元提供不同材质的挡水装置可选。  
When the face velocity is larger than 2.65m/s or section height is relatively high, cooler should be selected water remaining device, different material retaining water remaining device is for optional.
- DN1表示表冷器进出水管径，具体详见样本“机组性能参数表”对应的尺寸。  
DN1 represents cooler in/out of the water pipe diameter, Specific size references "standard model performance parameters table".
- 当盘管个数为6时表示表冷器为机组两侧进出水，相应的冷凝水管也为两侧布置排水管。  
When the number of the coil is 6, represents that the cooling coil water inlet and outlet are on two sides, the corresponding condensate pipe is also arranged on both sides of the drain pipe.

## 加热段 heater section



型号 CYZ- model CYZ-	名义风量 m³/h rated air volume m³/h	尺寸 (mm) Dimension								
		L	A		B	C	D	E	F	G
			1排 1row	2排 2rows						
03-0509	3000	8M	60	75	180	300	-	-	-	1
04-0609	4000	8M	60	75	180	400	-	-	-	1
05-0612	5000	8M	60	75	180	400	-	-	-	1
06-0810	6000	8M	60	75	180	598	-	-	-	1
07-0812	7000	8M	75	75	180	598	-	-	-	1
08-0912	8000	8M	75	75	180	725	-	-	-	1
09-0815	9000	8M	75	75	180	598	-	-	-	1
10-0915	10000	8M	75	75	180	725	-	-	-	1
12-0917	12000	8M	75	75	180	725	-	-	-	1
15-1118	15000	8M	75	75	180	916	-	-	-	1
18-1218	18000	8M	75	75	180	979	-	-	-	1
20-1220	20000	8M	75	75	180	979	-	-	-	1
25-1323	25000	8M	75	75	180	1106	-	-	-	1
30-1523	30000	8M	75	75	180	505	140	-	505	2
35-2020	35000	8M	75	75	180	759	140	-	759	2
40-2024	40000	8M	75	75	180	759	140	-	759	2
45-2323	45000	8M	75	75	180	949	140	-	949	2
50-2226	50000	8M	75	75	180	886	140	-	886	2
55-2427	55000	8M	75	75	180	1010	140	-	1010	2
60-2431	60000	8M	75	75	180	1010	140	-	1010	2
70-2631	70000	8M	75	75	180	1086	140	-	1086	2
80-2634	80000	8M	75	75	180	1086	140	-	1086	2
90-2540	90000	8M	75	75	180	1010	140	-	1010	2
100-2840	100000	8M	75	75	180	1162	140	-	1162	2
120-3540	120000	8M	75	75	180	934	150	150	934	3
140-3648	140000	8M	75	75	180	1010	150	150	1010	6
160-3654	160000	8M	75	75	180	1010	150	150	1010	6
180-3463	180000	8M	75	75	180	934	150	150	934	6
200-3665	200000	8M	75	75	180	1010	150	150	1010	6
240-3872	240000	8M	75	75	180	1086	150	150	1086	6

## 注 Note :

- 图示为热水加热器，每组加热下管为热水进，上管为热水出，如采用蒸汽加热，则每组加热器的上管为蒸汽进，下管为凝结水出。  
Shown as hot water heater, each heating lower tube is hot water inlet, the upper tube is hot water outlet, if using of steam heating, the upper pipe in each heater is steam inlet, the lower tube is used for the condensate out.
- DN1表示加热器进出水管径，具体详见样本“机组性能参数表”所对应的尺寸。  
DN1 represents cooler in/out of the water pipe diameter, Specific size references "standard model performance parameters table".
- 当盘管个数为6时表示加热器为机组两侧进出水。  
When the number of the coil is 6, represents that the heater coil water inlet and outlet are on both sides.



## 加湿段 Humidifier section

### 功能说明 Functional specifications

空气含湿量在冬季等需加热的时候比较低，加热后因为温度的升高而使相对湿度很低，因此需要使用加湿器对空气进行加湿。CYZ机组提供干蒸汽加湿、湿膜加湿、电极加湿、高压喷雾加湿、电热加湿等加湿方式。如有其它特殊方式要求，订货时请特别说明。  
Air moisture content is relatively low during the winter months which need heating, because the rise of temperature after heating will make the relative humidity lower, so it needs to use a humidifier for humidifying air. CYZ units provide dry steam humidification, wet-film humidification, electrode humidification, high-pressure spray humidification, electric heating humidification methods. If you have any other special requirements, please specify when ordering.

### 加湿方式 Humidification way

高压喷雾加湿-等焓加湿过程，采用不锈钢水分配和喷嘴，加压雾化喷雾，高效节能、安全可靠。  
High-pressure spray humidification- equal enthalpy humidification process, using stainless steel water distribution and nozzles, pressure atomized spray, energy-efficient, safe and reliable.

湿膜加湿-等焓加湿过程，饱和效率高，节约空间，降低机组总长度，无需特殊的水处理。  
Wet-film humidification- equal enthalpy humidification process, with high saturation efficiency, saving space, reducing the total length of the unit, doesn't need special water treatment.

干蒸汽加湿-等温加湿过程，加湿效率高，采用不锈钢材料，外形美观、耐腐蚀。  
Dry steam humidification- isothermal humidification process, high humidifying efficiency, USES the stainless steel material, beautiful appearance, corrosion resistance.

电极式加湿-加湿效率高，多种控制方式可选。  
Electrode humidification- high humidifying efficiency, there is many control ways for selection.  
电热加湿-加湿效率高，配用合适的控制方式可以达到很高的控制精度。  
Electric heating humidification- high humidifying efficiency, match with a suitable control method can achieve high control precision.

### 加湿方式比较 CoMParison of humidification way

加湿器名称 Humidifier name	加湿器使用条件 humidifier service conditions						
	环境温度°C Environment temperature	湿度 Temperature	临界风速m/s Critical wind speed m/s	给水水质 Feedwater Quality	给水/蒸汽温度°C Feedwater/steam temperature °C	给水/蒸汽压力 MPa Feedwater/steam pressure MPa	加湿段长度mm Humidifier section length mm
高压喷雾加湿器 High-pressure spray humidifier	1~40	85%	0.5~3.5	自来水净化水或同等水质 Tap water, purified water or equivalent quality	4~55	0.1~0.5	900
干蒸汽加湿器 Dry steam humidifier	-10~50	/	/	蒸汽 steam	<150	0.02~0.4	600
湿膜加湿器 Wet-film humidifier	5~100	<90%	3.5	自来水或同类型水 Tap water, purified water or equivalent quality	5~40	0.15~0.75	可与冷盘管一起 Can be put together with the cooling coil
电极加湿器 Electrode humidifier	4~40	<85%	/	洁净自来水或软化水 Clean tap water or demineralized water	4~35	0.1~1.0	600
电热加湿器 Electric heating humidifier	4~40	<85%	/	软化水或纯净水 Demineralized water or purified water	4~35	0.1~0.3	600

### 干蒸汽加湿器性能 Dry steam humidifier performance

#### 干蒸汽加湿量表 Dry steam humidification quantity

蒸汽压力 Steam pressure	型号 model	JQ-15			JQ-20			JQ-40			JQ-50	
		φ2	φ4	φ6	φ8	φ9	φ10	φ10.5	φ12	φ14	φ16	φ18
0.02		1.5	1.4	9	22	27	34	40	55	75	145	187
0.1		2.3	9	21	49	62	75	78	102	141	194	246
0.2		3.6	14	35	68	106	131	142	160	216	311	397
0.3		4.5	18	40	97	152	187	205	217	296	448	569
0.4		6.1	24	58	124	196	227	250	275	375	590	760

注：表中的额定加湿量指调节阀全开启时的加湿量，单位为kg/h  
Note: the rated humidification quantity is that in regulating valve fully open, the unit is kg/h

### 机组型号和干蒸汽加湿器喷管长度对照表

#### Unit type and dry steam humidifier nozzle length control coMParison table

型号 CYZ-model CYZ-	喷管长度mm Nozzle length	喷管数量 只 Nozzle number only set	型号 CYZ-model CYZ	喷管长度mm Nozzle length	喷管数量 只 Nozzle number only set
03-0509	800	1	2024	2100	1
04-0609	800	1	2323	1800	1
05-0612	900	1	2226	2100	1
06-0810	900	1	2427	2100	1
07-0812	900	1	2431	2700	1
08-0912	900	1	2631	2700	1
09-0815	1200	1	2634	3000	1
10-0915	1200	1	2540	3350	2
12-0917	1200	1	2840	3350	2
15-1118	1500	1	3540	3350	2
18-1218	1500	1	3648	3650	2
20-1220	1500	1	3654	2100	4
25-1323	1800	1	3463	2700	4
30-1523	1800	1	3665	2700	4
35-2020	1500	1	3872	3350	4

## 注 Note :

- 干蒸汽加湿器标准配置为国产品牌，如用户需我公司可选配进口品牌。

Dry steam humidifier standard configuration for the domestic brands, if user needs, we can provide imported brand.

- 干蒸汽加湿器分两种方式控制：手动和电动。

Dry steam humidifier is controlled in two ways: manual and electric.

- 干蒸汽加湿器的加湿量仅与加湿器型号，蒸汽压力及喷孔孔径、数量有关，而与喷嘴长度无关。

Dry steam humidifier humidification quantity only have a connection with humidifier model, steam pressure and nozzle hole diameter, number, and has nothing to do with the length of the nozzle.

- 对于大断面的机组，我公司会根据具体的加湿量和尺寸选配双喷管或多喷管等不同的形式。

For the large section of the unit, our company will choose double nozzle or nozzle and other different forms according to the specific humidification quantity and size.

## 湿膜加湿器性能 Wet film humidifier performance

湿膜加湿器是利用水的蒸发对空气进行加湿的设备。其介质为由高分子无极材料经过特殊的加工而形成的蜂窝状物，其具有很大的表面积和极强的吸水性能，当空气经过介质时，水分逐渐蒸发，吸收空气中热量，从而使空气中的湿度增加。它具有以下优点：

Wet film humidifier is a equipment which humidifies the air by evaporation of water. Whose medium is honeycomb, the honeycomb is infinite polymer material formed through special processing, which has large surface area and strong absorption ability, when the air passes through the media, the water gradually evaporates, the air to absorb heat, so that the air humidity increases . It has the following advantages:

- 洁净加湿 - 湿膜加湿时降温无“白粉”现象。

Clean humidifier - when cool wet film no "white powder" phenomenon.

- 加湿距离短 - 加湿距离仅为自身厚度。

Humidifying distance is short-the distance of wetting distance is only its thickness.

- 饱和效率高 - 饱和效率可达到80%。

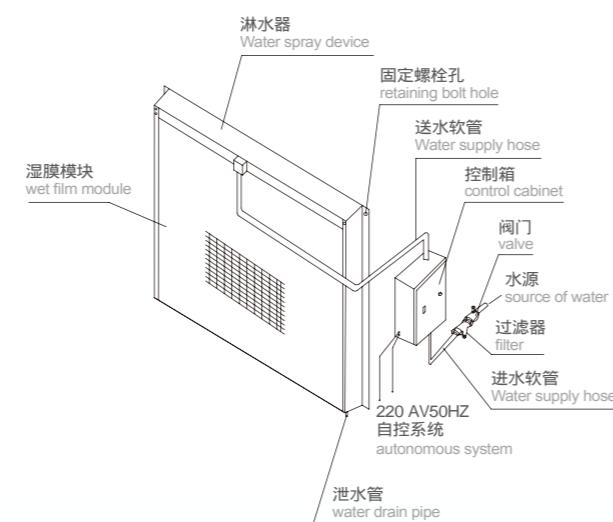
High saturation efficiency - saturation efficiency can reach 80%.

- 安全可靠 - 膜体材料防霉防菌，使用寿命长达10年。

Safe and reliable - membrane material is mildew and anti-bacteria, service life up to 10 years.

- 降温效果好 - 采用填料进行直接蒸发冷却降温，体积小，效果好。

Good cooling effect - direct evaporative cooling with fillers, small size, the effect is good.



标准机型湿膜加湿量表 Standard model wet film humidification table

型号 CYZ- Model CYZ-	名义 风量 m³/h Rated air volume m³/h	新风工况 fresh air condition				回风工况 return air condition			
		35%效率 35% efficiency	60%效率 60% efficiency	75%效率 75% efficiency	85%效率 85% efficiency	35%效率 35% efficiency	60%效率 60% efficiency	75%效率 75% efficiency	85%效率 85% efficiency
03-0509	3000	7	13	16	18	5	10	13	15
04-0609	4000	8	25	20	22	7	13	16	18
05-0612	5000	9	18	23	26	8	25	29	22
06-0810	6000	13	24	31	35	10	20	25	29
07-0812	7000	14	26	33	37	11	21	27	31
08-0912	8000	16	30	39	44	13	25	32	36
09-0815	9000	19	35	45	52	15	29	37	42
10-0915	10000	21	39	50	57	17	32	41	47
12-0917	12000	23	44	56	64	19	36	46	52
15-1118	15000	30	58	74	84	25	48	60	69
18-1218	18000	35	67	86	98	29	55	70	80
20-1220	20000	39	74	94	107	32	60	77	88
25-1323	25000	52	99	126	144	42	81	103	118
30-1523	30000	60	114	145	166	49	93	119	136
35-2020	35000	67	128	163	187	55	105	134	153
40-2024	40000	79	150	191	219	64	123	157	179
45-2323	45000	91	175	222	254	75	143	182	208
50-2226	50000	97	185	237	271	80	153	194	222
55-2427	55000	103	195	252	290	90	178	225	249
60-2431	60000	122	233	297	339	100	191	243	278
70-2631	70000	139	266	338	386	114	218	277	316
80-2634	80000	154	295	375	429	126	241	307	351
90-2540	90000	173	332	422	482	142	272	346	395
100-2840	100000	196	375	477	545	160	307	391	446
120-3540	120000	238	455	573	660	194	367	475	546
140-3648	140000	280	535	675	778	228	424	557	629
160-3654	160000	322	615	768	884	262	486	628	722
180-3463	180000	364	695	845	968	296	563	712	819
200-3665	200000	392	750	954	1090	320	614	782	892
240-3872	240000	476	910	1146	1320	388	734	950	1092

## 注 Note :

- 新风工况为28 相对湿度15% , 回风工况为30%新风比。

Fresh air working condition 28°C, relative humidity is 15%, Fresh air working condition is 30% fresh air ratio.

- 不同厚度湿膜的效率不一样 , 加湿器也不一样 , 上表中四种效率对应的湿膜厚度为50mm , 100mm,150mm , 200mm。其它厚度规格的参数具体请和创元公司市场部联系。

Different efficiency of wet film thickness is different, humidifier is also different, four kinds of efficiency of wet film thickness of 50 mm, 100 mm, 150 mm, 200 mm in the above. Please contact ChuangYuan marketing department to get other thickness specification parameters.

## 其它加湿性能 (电极式加湿器 , 高压喷雾加湿器 , 超声波加湿器 )

Other humidification performance (Electrode humidifier, High-pressure spray humidifier, Electrode humidifier)

电极式加湿装置 , 不锈钢电极和防腐性能良好的加湿罐保证了设备可靠运行。在使用中可通过调节加湿桶内的水位高低即可达到加湿量的调节。电极式加湿器运行十分可靠 , 当供水因断绝时点加湿器将会自动停止工作 , 当恢复供水时又自动恢复工作。

Electrode humidification device is used in this section, stainless steel electrodes and cylinder style to ensure equipment reliable operation.

Adjusting the water level inside the cylinder can be adjusted to the amount of humidification. Electrode humidifier operation is very reliable, when the water cut off ,the humidifier will automatically stop working ,after rehabilitation of water, it will back to work immediately.

高压喷雾加湿 , 通过机械给水加压 , 将水雾化后 , 喷到空气中 , 水雾粒子与流通空气进行热湿交换 , 达到等焓加湿空气的目的。

High-pressure spray humidification via mechanical pressure water, Make the water into fog, and then spray into the air. Water mist flow in the air and get the heat and moisture exchange to get the purpose of humidifying the air in equal enthalpy. Wet membrane humidification humidifies by water spray to wet film modules to get the purpose of humidifying the air in equal enthalpy. It can get the purpose of replacing the flap in enhancing the humidification and dewatering.

超声波加湿是利用高频振荡 , 通过电能直接加到电换能片上 , 将电能转换成高频机械振动 , 将其表面的水直接雾化成细雾 , 达到加湿的目的。

Ultrasonic humidification use high frequency vibration to via power energy directly added to the transducer chip, Transform the piezoelectric transducer to convert electrical energy film. The surface of the water will be atomized into a fine mist, to achieve the purpose of humidification directly.

## 注 Note :

以上电加湿器机组的性能参数请联系创元市场部 , 标准配置为国产加湿器 , 也可根据客户的要求 , 选用同类型的进口加湿器。

If you need the above performance parameters of electric humidifier unit, please contact ChuangYuan marketing department, standard configuration for domestic humidifier, we can select the same type of imported humidifier according to customer's requirements.

## 消声段 Muffler section

## 功能说明 Functional Specification

环境噪声要求较高的场合 , 可根据要求及风机噪声特点为机组选配消声段。消声段采用阻性消声器 , 其内部由穿孔板内置消声棉构成 , 在较宽的频率范围均具有良好的消声效果。

Occasions with high requirements for environment noise, according to the requirement and the fan noise characteristics to match muffler section for unit. The muffler section with resistive muffler, its internal consists of perforations, built-in anechoic rock wool, has a good silencing effect in a wider range of frequencies.

消声段分回风消声 , 送风消声。其消声器采用片式阻性消声器 , 片厚210mm , 阻塞比0.68。

Muffler section is divided into return air muffler, supply air muffler. The muffler adopts the chip resistive muffler, the thickness is 210mm, blocking ratio 0.68.

型号 CYZ-model CYZ-	名义风量 m³/h Rated air volume M³/h	不同长度消声器的消声量dB(A) Different length of muffler noise elimination dB (A)			不同长度消声器的空气阻力Pa The air resistance of different length of muffler		
		600mm	900mm	1200mm	600mm	900mm	1200mm
03-0509	3000	17	20	23	20	21	22
04-0609	4000	17	20	23	20	21	22
05-0612	5000	17	20	23	24	26	27
06-0810	6000	17	20	23	30	32	34
07-0812	7000	17	20	23	23	25	27
08-0912	8000	17	20	23	24	26	28
09-0815	9000	17	20	23	22	24	26
10-0915	10000	17	20	23	26	28	30
12-0917	12000	17	20	23	30	32	34
15-1118	15000	17	20	23	25	27	29
18-1218	18000	17	20	23	23	25	27
20-1220	20000	17	20	23	29	31	33
25-1323	25000	17	20	23	25	27	29
30-1523	30000	17	20	23	23	25	27
35-2020	35000	17	20	23	27	29	31
40-2024	40000	17	20	23	24	26	28
45-2323	45000	17	20	23	22	24	26
50-2226	50000	17	20	23	22	24	26
55-2427	55000	17	20	23	30	32	34
60-2431	60000	17	20	23	29	31	33
70-2631	70000	17	20	23	23	25	27
80-2634	80000	17	20	23	26	28	30
90-2540	90000	17	20	23	31	33	35
100-2840	100000	17	20	23	25	27	28
120-3540	120000	17	20	23	25	27	28
140-3648	140000	17	20	23	25	27	28
160-3654	160000	17	20	23	25	27	28
180-3463	180000	17	20	23	25	27	28
200-3665	200000	17	20	23	25	27	28
240-3872	240000	17	20	23	25	27	28

## 消声器动态插入损失(dB) Muffler dynamic insertion loss(dB)

倍频程 Octave	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
消声器长度 Muffler length								
600mm	6	9	12	22	30	29	21	12
900mm	7	12	16	28	35	35	28	17
1200mm	7	15	20	34	40	40	34	21

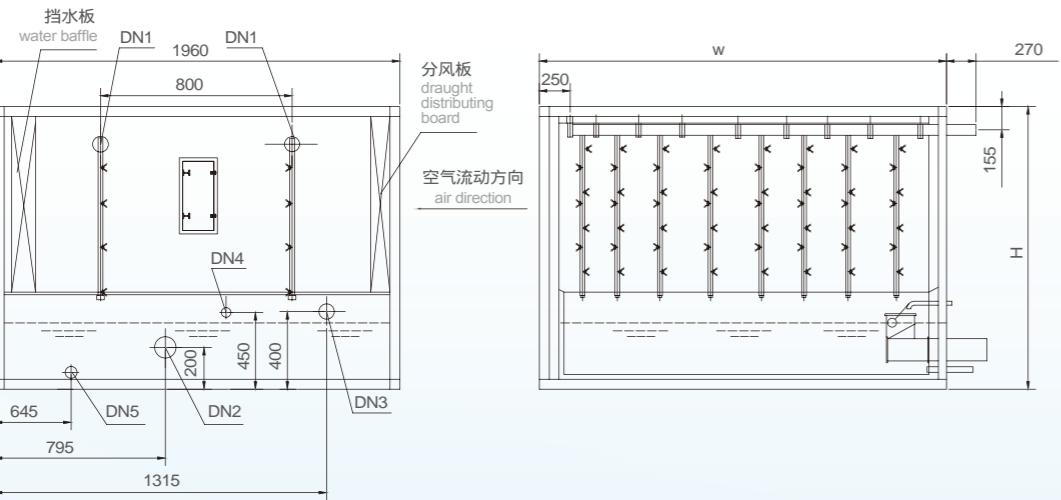
## 消声器阻力系数 Muffler resistance coefficient

消声器长度mm Muffler length	600	900	1200	1500	1800	2100	2400	2700
阻力系数 Resistance coefficient	5.531	5.834	6.173	6.440	6.721	7.000	7.280	7.607

## 喷淋段 spray section

喷淋段可以实现多种空气处理过程，既可以实现空气的减焓，除湿，亦可以用于空气的增焓、加湿、升温等过程，并且在空气流通的断面上形成一个水帘通道，对于空气的净化及清洁起到良好的作用，广泛应用于烟厂，电厂等场所。

Spray can achieve a variety of air handling process, can realize the air enthalpy reduction, desiccant, also can be used for air enthalpy enhanced, humidification and heating process, and forms a curtain on the air flow channel cross-section, has a good effect on the purification and clean of the air, is widely used in cigarette factory, power plant etc.



型号 CYZ- Model CYZ-	名义 风量 m³/h Rated air volume m3/h	喷嘴个数N The number of nozzle	喷水量t/h Water spray	进水管DN1 Inlet pipe	回水管DN2 Return pipe	溢水管DN3 Overflow pipes	补水管DN4 Fill pipe	排水管DN5 Drain pipe
20-1220	20000	96	28.37	40	80	50		50
25-1323	25000	108	31.91	40	100	50		50
30-1523	30000	160	47.28	50	125	65		50
35-2020	35000	180	53.19	70	125	65		65
40-2024	40000	200	56.74	70	150	65		65
50-2226	50000	224	66.19	80	150	80		65
60-2431	60000	280	82.74	80	150	80		65
70-2631	70000	320	94.56	80	150	80		65
80-2634	80000	360	106.38	80	200	80		65
90-2540	90000	390	115.8	80	200	80		65
100-2840	100000	430	127.66	80	200	100		65
120-3540	120000	530	156.02	100	250	100		65
140-3648	140000	580	170.21	100	250	100		65
160-3654	160000	620	182.03	100	250	100		65
180-3463	180000	650	191.48	125	300	125		65
200-3665	200000	680	199.76	125	300	125		65
240-3872	240000	720	212.77	125	300	125		65

32

## 注 Note :

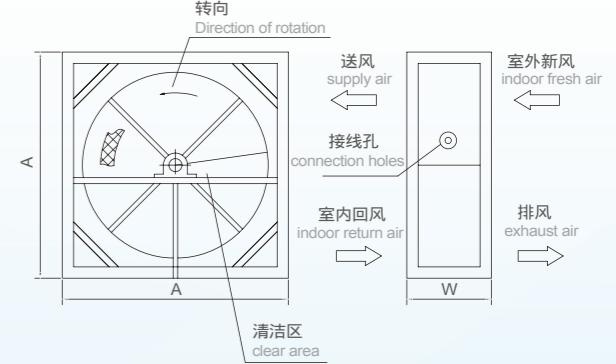
- 喷淋段循环水泵由用户自备，如需创元公司供货请注明。  
The circulating water pump of spray section should be provided by the user, for ChuangYuan supplier, please specify.
- 进水管和回水管径会随水泵的改变而改变，表中数值仅供参考，以实际选型为准。  
Inlet water pipe and return water pipe diameters can change with the change of the water pump, the numerical value in the table is for reference only, subject to the actual selection.
- 喷嘴个数随着喷嘴的喷孔直径及喷水量的变化会有所改变。  
The number of the nozzle can change with the change of the orifice diameter and water quantities.

## 热回收段 Heat recovery section

## 转轮热回收 Rotary heat recovery

转轮使用特种金属蜂窝状材料，表面涂特殊的干燥剂吸附。在典型的安装中，转轮定位在空调机的断面中间，把转轮分成上下两部分，来自室内的污浊的空气从其中一半排除，而另一半则从室外通入新鲜的空气，同时转轮慢慢旋转，这时转轮内蓄积的热湿空气和另一半进行交换，从而达到回收全热的功能。

The wheel uses special metal honeycomb material, coated with a special desiccant adsorption. In a typical installation, the wheels positioned in the middle section of the air conditioner, the wheel is divided into two parts, the polluted air from the indoor to exclude from one half and the other half from the outside inlet the fresh air, while the wheel slowly rotate, then the accumulation of heat and moisture in the air wheel exchange with the other half, so as to achieve the total heat recovery function.





**板翅热回收特点 Plate fin type heat recovery characteristic**

- 板式热回收装置是静态的，没有运动件，这就保证了极高的运行可靠性和安全性。  
Plate fin heat recovery unit type is static, no moving parts, which can guarantee the reliability and safety of the high operation.
- 两股气流，进气和排气分别在板式热回收装置中两条不同的通道中穿过，两股通道做到密封，防止交叉感染，热交换就是通过构成气流通道的板材进行交换。  
The two streams, the intake and exhaust respectively across two different channels in the plate heat recovery unit, two strands of channels sealed to prevent cross infection, and heat exchange is exchanged by the board that constitute the airflow channel.
- 热交换板表面采用“湍流”设计几何形状可使热交换效率最高达70%  
"Turbulence" is used to design heat exchange plate surface, geometry can make the heat exchange efficiency up to 70%

**热管式热回收 Heat pipe heat recovery**

热管管体为内壁精心加工过的优质紫铜管，经超声波清洗干燥后，管体两端由气焊密封，抽高真空后并充注适量的工作介质，再用气焊密封工艺管。翅片为高速冲床冲压成型的波纹铝箔翅片。铜热管内充注经过精心筛选的多组分低沸点有机介质，不仅环保、安全、对人体无害，同时也强化了传热过程。热管按照等边三角形排列的热管束，管束外套波纹型整体铝箔翅片，形成热回收器的芯体，用中间隔板将热管的新风段和排风段分开。芯体部分外加钢制的安装边框，边框与中间隔板接成两个独立的风道，即构成整体式的热管热回收器。每根热管都和中间隔板涨接为一体，保证了流过热回收器的两股热气流分隔严密、互不渗漏。

Heat pipe high-quality copper inner wall is careful processing, after ultrasonic cleaning and drying, the tube are sealed by welding at both ends of the body, high vacuum pumping and filling amount of working medium, then sealing process pipe with gas welding. Fin is corrugated aluminum fins which formed by a high-speed punch press. Carefully filtered and multi-component low boiling point organic medium is filling in the copper tube, not only environmental protection, safety, harmless to human body, but also to strengthen the heat transfer process. Heat pipe is arranged tube bundle in the light of equilateral triangle, put corrugated aluminum foil fins on the exterior tube bundle, form a heat recovery core, using the middle clapboard to separate the fresh section and exhaust section. Add steel frame outside of the core, the frame and middle bulkhead are separated into two independent air duct, which constitutes unitary heat pipe recovery. Each pipe expanded with the spacing board, to ensure that the two hot air flow through the heat collector separated tightly, mutual leakage.

**特点：全部为静态装置，每个热管回路互相独立，即使一个损坏不影响整体的使用效果。**

Features: all of them are static devices, each heat pipe loop mutually independence, even if one damaged does not affect the overall effect.

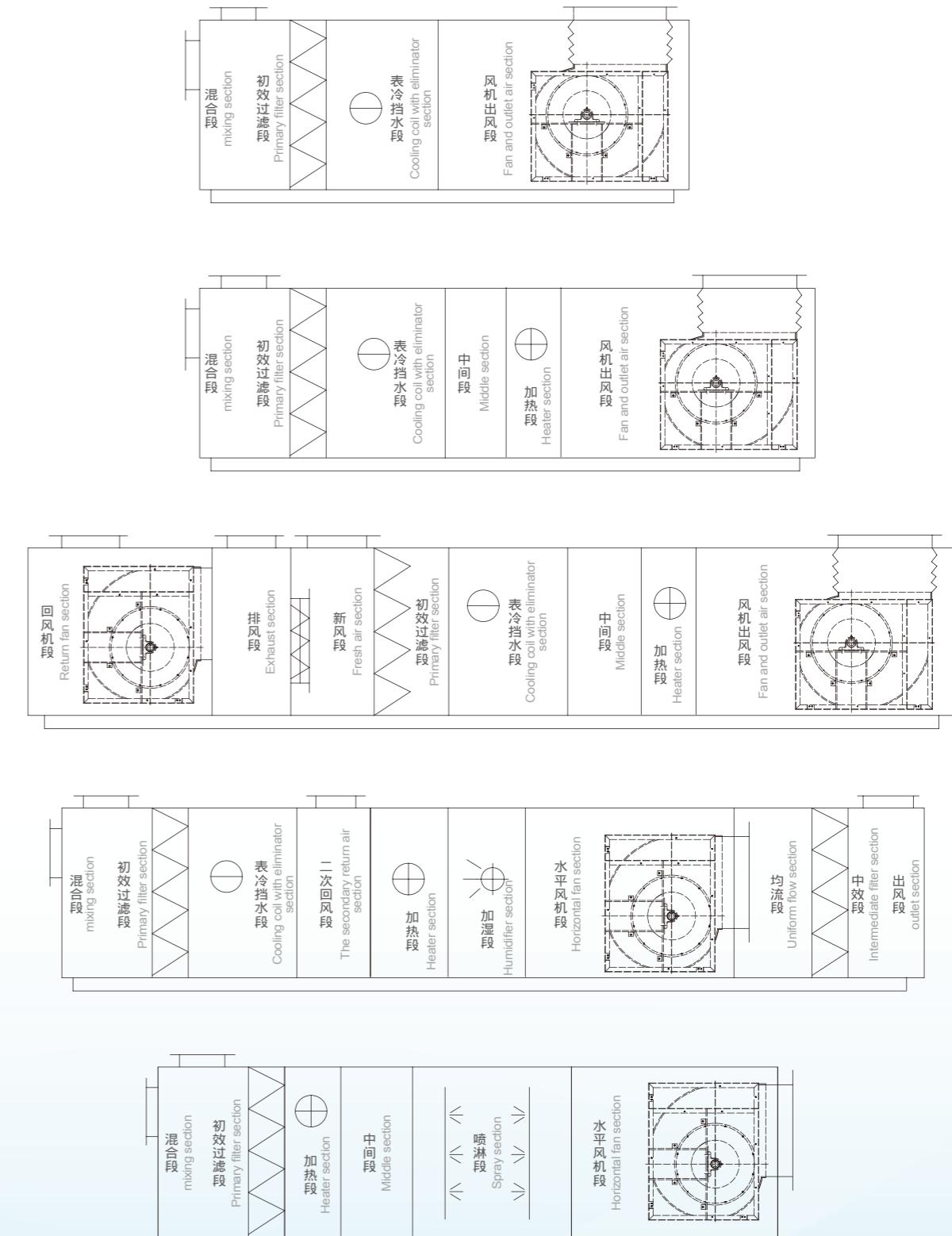
**注 Note :**

因板翅式热回收在不同的风速、长度下，风量、阻力也不一样。热管式热回收机组的数据均为实验数据，因此客户如需资料请与创元市场部联系，以获得相关技术资料。

The air quantity and resistance of the plate fin heat recovery is different in different wind speed and length. Heat pipe heat recovery unit of the data are based on the experimental data, if the customer needs related data, please contact with ChuangYuan marketing department, in order to obtain relevant technical data.

**常见功能段组合方式 (一)**

Common functional section compound mode(a)









## 其他非标组合式(净化)空调机组

Other non-standard (purification) modular air-conditioning unit

我公司除了以上标准机型之外还有下述形式的组合式(净化)空调机组。

Besides the above standard units, we have the following forms of combined (purification) air-conditioning unit.

### 无框架型空气处理机组

Frameless air handling unit

该种结构采用新型的工艺，全部采用保温板拼装样式，内部仅有支撑的框架。其他部件选用均与标准型相同的配置。其外形美观、保温及密封性能好、组合灵活，特别适用于小型的组合式(净化)空调机组。风量范围在1000~50000m<sup>3</sup>/h，机外余压200~1000Pa。

This kind of structure with new technology, are all made of insulation board assembly form, only support shell frame inside. Other components choose the same configuration as the standard. It has beautiful appearance, heat preservation and sealing performance, flexible combination, especially suitable for small combined (purification) air-conditioning units. The air volume range is 1000~50000m<sup>3</sup>/h, external pressure is 200~1000Pa.



无框架型空气处理机组  
No frame type air handling unit

### 智能机电一体化空气处理机组

Intelligent and mechatronics air handling unit

采用内置钢型材框架，外部为聚氨酯高压发泡保温板，底部为加强型的槽钢底座，内部可以包含所有的标准机型功能（按用户需求设计选用）及控制系统，出风口采用高性能的远程喷射球形喷口，广泛应用与机场、车站、各种会议的展览中心等大空间空调场所。该机组只要接通冷冻水及电源即可使用，无需设置庞大而复杂的送、回风管。风量使用范围20000~40000m<sup>3</sup>/h，气流喷射距离25米左右。

Use built-in profile steel frame and external with high-pressure polyurethane foam insulation board, reinforced bottom of the channel base, interior can contains all standard models feature (according to user needs to design and selection) and control system, The air outlet use high performance remote injection spherical nozzle which is widely used in large space air conditioning places such as airports, stations, conference and Exhibition Center, etc. As long as the unit turns on chilled water and power can be used, no need to set the large and complex supply and return air duct. The air volume range is 20000~40000m<sup>3</sup>/h, air jet distance of about 25 meters.



智能机电一体化空气处理机组  
Intelligent and mechatronics air handling unit

如需选择非标机组请联系南京创元市场部，将要求提供给技术支持工程师，我公司将为你量身定制适合你需要的机组。

If you require non-standard units, please contact Nanjing ChuangYuan marketing department, provide the technical requirements to the technical support engineer, I will provide you tailor fit your needs unit. Our coMPany will provide you with tailor-made units.

## 使用须知 Use instructions

为了让每位设计院的工程师和广大用户选到理想的组合式(净化)空调机组，请阅读以下注意事项，帮助您选出经济、合理的空调机组，这也是创元公司的服务宗旨和理念。

In order to make every design institute of engineers and customers choose the ideal (purification) modular air-conditioning unit, please read the following notes, help you choose the economic and reasonable air conditioning unit, it is also ChuangYuan coMPany's service tenet and principle.

- 选用之前请详阅样本的说明，创元公司的组合式(净化)空调机组品种规格齐全、数据准确，可以满足不同场合和要求。  
Before use, please read the sample description, ChuangYuan coMPany (purification) modular air-conditioning unit has a complete range of specifications, data accuracy, can meet different occasions and requirements.
- 您在项目初选设计中可以将空调机组的基本要求和表冷器前后空气参数用传真、电话、邮件等方式告诉本公司，本公司即可将要求输入CAD计算机工作站，经计算机处理后立即将空调机组的冷热热工计算结果传真给您，以便您的设计能顺利进行下去。具体要求和参数表格见附件1。  
You can use the air parameter fax, telephone, mail and other measures to tell our coMPany the basic requirements of the air conditioning unit and the air parameter before and after cooling coil in the primary project design, we You will be asked to enter a CAD computer workstation, after processing, we will fax you the cold and hot thermal calculation results immediately, so that your design can proceed smoothly. See Appendix 1 for specific requirements and parameters.
- 您在设计中如果感到我公司空调机组在功能段的机构、排列功能等方面尚不能完全满足你的要求时请及时和本公司联系，本公司将会尽力满足您的要求。  
If you find the unit function sections organization and arrangement function is not fully meet your requirements in your design, please contact our coMPany, we will try our best to meet your requirements.
- 您在最初设计时可使用《机型快速选型表》选出符合送风量的组合式空调机组高度和宽度的标准模数。《功能段分类表》、《常见功能段组合方式》可以确切地排出合理的功能段组合。利用《段长尺寸表》可以算出您选定的组合组合式空调机组的总长度。利用《常见功能段重量表》可以计算出您选定的组合组合式空调机组的总重量。利用《功能段空气阻力表》可以粗算组合式空调机组的总阻力。  
You can use the "Standard mode quick selection table" in the initial design to choose air conditioning unit standard modulus height and width. The "Functional section classification table" and the "Common functional section compound mode" can be used to discharge the reasonable functional section combination. The total length of the air conditioning unit can be calculated by using "Section length dimension table". Using "Common functional section weight table" can calculate the total weight of the air conditioning unit you choose. The total resistance of the air conditioning unit can be calculated by using "Functional section air resistance table".
- 您在做施工图设计时可以在《各功能段的外形尺寸及技术性能》获得各功能段的确切资料，这样您将可以顺利地完成组合组合式空调机组的选用和施工图设计，当还需进一步了解样本中未介绍的内容时可以和本公司联系，您将得到满意的答案。  
when doing construction drawing design, you can get clear information for each function section at each functional section dimensions and technical performance table, so that you will be able to successfully complete the selection of the unit and drawing design, if you need to further understand the contents of the sample which is not introduced, please contact the coMPany, you will get a satisfactory answer.
- 工程设计时各个设计院和工程师采用参数的单位各不相同，为方便换算为自己熟悉的单位，在附录2里将各单位换算表列出来，换算请直接查用即可。  
In engineering design, various design institutes and engineers use different parameter units, for expediently convert to their own familiar units, appendix 2 lists different unit conversion tables, please check the terms of use.

## 安装、运行与维护

### Installation, operation and maintenance

#### 机组的安装 The installation of the unit

- 机组的四周、尤其是检修门或接水管的一侧，应留有足够的空间供设备维护，最佳的空间应大于机组内部单台换热管的长度。

Around the unit, especially the access door or the water pipe side, adequate space for equipment maintenance, optimum space should be more than heat exchange tubes of the single unit.

- 机组应安装在高于机房地面200mm -300mm的平整水泥或槽钢焊接的基础上。基础长和宽应比机组大200mm，外面应有防止溢水的围堰和地漏。空调安装基础由用户自备，制作图纸可以由创元公司提供。

The unit should be installed 200mm-300mm above the ground on the smooth cement or welding steel based in the machine room. The length and width of the foundation should be larger than the unit by 200mm, and the outside should prevent the overflow cofferdam and drain. Air conditioning installation base is owned by the user, drawings can be provided by ChuangYuan.

- 各个进出水管在空调机组外须安装阀门，机组外的阀门、管道及其他重量不得由机组承担。

Each of the inlet and outlet pipes shall be installed valve outside of the air conditioning units, and the valves, piping and other weight shall not be bear by the unit.

- 机组负压段的冷凝水排水管应安装水封，按右图示正确连接，保证冷凝水的顺利排放。

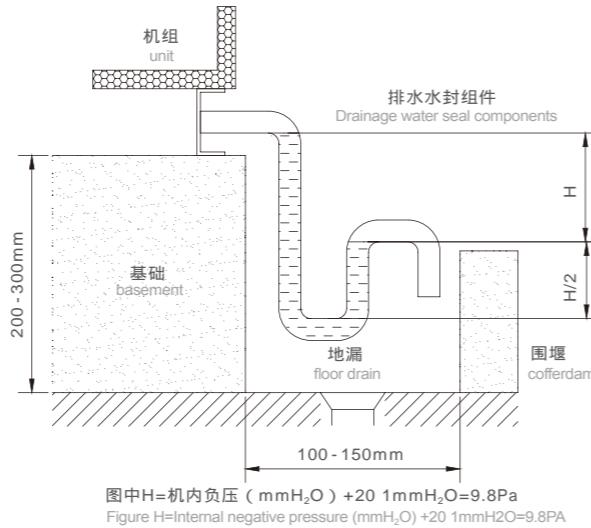
Units of the negative pressure condensate drain pipe should be installed water seal, according to the picture on the right shows the correct connection, guarantee the condensed water discharge smoothly.

- 外接水管的水路必须清洗干净后方可和机组的进出水管连接，连接时不可用力过猛以免损坏换热器。

The inlet and outlet pipe of the unit can be connected after the external connection water pipe cleaned, and the connection can't be too hard to avoid damage to heat exchanger.

- 电机应接在有保护装置的电源上，机组外壳应接地保护，大于15kW的电机应采用降压启动的方式。

The motor should be connected with the power supply protective device, and unit case should be grounded protection, using reduced-voltage start way if motor power greater than 15kW.



#### 机组的运行 The operation of the unit

- 空调机组应由专门的人员管理运行，定期检查机组的运行情况并记录，发现异常应及时排除。  
Air conditioning units should be operated by special management, and regularly check and record the operation of the unit, and the abnormal should be excluded.
- 机组在启动前应检查风机转动是否灵活、启动后及时检查转向的是否准确，电气设备应由专业的人员检查无误后方可开机。  
Whether the fan rotation is flexible should be checked before starting the unit, starting to check whether the steering is accurate, electrical equipment should be professional inspection without error before starting.
- 机组如果有多重功能运行时，在控制上应考虑各个功能的连锁运行。  
If there are multiple functions, the chain operation should be considered in the control.
- 机组在运转前应进行风阀调整，如空调机不接风管负载时应将风阀关闭3/4运行，并检查电机在额定电压下的电流，在任何时候不得将进风口或出风口全部关死，以防止机组发生不可恢复的形变，甚至可能发生机组保温板爆裂的严重事故。  
Unit valves should be adjustment before operation, when air conditioner load, it does not connect with air duct, air valve should be closed 3 / 4, and check the motor under the rated voltage current, the inlet and outlet may not be all shut at any time, to prevent the occurrence of unrecoverable deformation, units insulation board may even burst.
- 运行时机组的冷媒水为清洁软化水，其工作压力不得超过1.2MPa,蒸汽的供气压力为0.2-0.4MPa。  
Chilling water is clean and softened water in the operating unit, the working pressure shall not be more than 1.2 MPa, steam gas supply pressure is 0.2-0.4 MPa.
- 冬季运行时，如需停机应保证机组内的水连续流动，如冬季不使用时应完全排除换热器内的积水，关闭新风阀，以防冻裂。  
Operation in winter, when the unit goes down, you should ensure a continuous flow of water in the unit, if not be completely ruled out the ponding water inside of the heat exchanger, close the new valve to prevent cracking.

#### 机组的维护 Maintenance of the unit

- 定期检查过滤器积尘情况，阻力达到终阻力时应进行清洗或更换。  
Regularly check the filter dust, resistance reaches final resistance should be clean or replace.
- 定期检查皮带的松紧、磨损，如大化、过松应调整电机底板的调节螺栓。检查轴承的润滑情况，定期加锂基润滑脂，免维护的轴承除外。  
Regularly check the tightness of the belt, wear, such as slipping, loose should adjust the motor floor adjustment bolt. Check the lubrication condition of the bearing, and lubricate the lithium grease regularly, except for the maintenance of the bearing.
- 换热器可用压缩空气或高压水冲洗翅片。  
Heat exchanger can use compressed air or high pressure water to flush fins.
- 定期检查各部件的密封性，更换老化的密封条。  
Regular check the sealing of the components, replace the old saying seal.
- 机组运行1-2年后应进行全面清洗、保养。  
The unit should be cleaned and maintained after 1-2 years.

## CYZ组合式(净化)空调机组订货附件(附录1)

CYZ series of(purification) modular air-conditioning unit order accessories (appendix 1)

用户名 Username : \_\_\_\_\_ 联系方式 Contact information : \_\_\_\_\_

机组型号 Unit model : \_\_\_\_\_ 机组数量 Unit quantity : \_\_\_\_\_

序号 NO.	名称 name	技术要求 Technical requirements		
1	风量 (m³/h) Air capacity(m³/h)	送风量 Air supply volume m³/h 新风量 Fresh air volume m³/h 排风量 Exhaust air volume m³/h		
2	箱体面板规格 The box panel specifications	25mm 35mm 50mm		
3	机组左右式 Unit left and right style	左式 Left type 左式 Right type		
4	供冷量 (kW) Cooling capacity (kW)	kW		
5	供热量 (kW) Heating capacity (kW)	kW		
6	回风温度 Return air temperature °C	干球温度 Dry-bulb temperature 湿球温度 Wet bulb temperature (或RH %)		
7	夏季新风参数 Winter outdoor parameters	干球温度 Dry-bulb temperature 湿球温度 Wet bulb temperature (或RH %)		
8	冬季新风参数 Summer outdoor parameters	干球温度 Dry-bulb temperature 湿球温度 Wet bulb temperature (或RH %)		
9	机外余压 External pressure	回风 Return air Pa	送风 Supply Pa	
10	冷水进出水温度 Chilled water inlet and outlet water temperature	进水温度 The water inlet temperature 出水温度 The water outlet temperature		
11	热水进出水温度 Hot water inlet and outlet water temperature	进水温度 The water inlet temperature 出水温度 The water outlet temperature		
12	加热蒸汽压力 Heating steam pressure	MPa		
13	机组最大外形尺寸 Unit maximum overall dimension	(mm)长 Length × (mm)宽 Width × (mm)高 Height		
14	机组组装形式 Unit assembly form	散件现场组装 Spare parts field assembly 整机出厂 Overall machine shipment		
15	能量回收单元 Energy recovery element	板翅式 Plate-fin type	转轮式 Heat pipe type	热管式 Heat pipe
16	能量回收类型 Energy recovery type	显热 Sensible heat 全热 Total heat		
17	表冷器参数 Cooler parameter	管排数 Tube bay number n=	接管尺寸 joint pipe size DN 冷凝水管尺寸 condensate pipe size DN	
18	加热器参数 Heater parameter	管排数 Tube bay number n=	接管尺寸 joint pipe size DN 冷凝水管尺寸 condensate pipe size DN	

19	管制 Pipe type	2管制 Bi-tubes 4管制 Tetra-tubes 注:2管制:冷热换热器共用 4管制:冷热换热器分开 Note:bi-tube is hot and cold heat exchanger used in common , tetra-tubes: Hot and cold heat exchanger used separately
20	加湿段 Humidifier section	加湿量 Kg/h 加湿器类型 Humidification amount kg/h Humidifier types
21	冷凝水盘材质 Condensate water pan material	表面喷涂 Surface spraying 不锈钢 Stainless steel
22	初效过滤器 Primary filter	板式 Plate type 袋式 Bag type 过滤效率 Filter efficiency (欧洲新标准 European new standard )
23	中效过滤器 Medium efficiency filter	板式 Plate type 袋式 Bag type 过滤效率 Filter efficiency (欧洲新标准 European new standard )
24	其他过滤器 Other filters	板式 Plate type 袋式 Bag type 过滤效率 Filter efficiency (欧洲新标准 European new standard )
25	机组附件 Unit accessory	照明灯 Floodlight , 电源 Power supply 观察窗 Inspection window 压差计 Differential pressure gauge 压差开关 Differential pressure switch 数显温度计 Digital readout thermometer
26	送风方向 Air supply direction	送风方向 Air supply direction
26	新、回风方向 Fresh and return air direction	新风位置 Fresh air position 回风位置 Return air position
27	组合功能段名称 Combined function section name	
28	其它特殊要求 Other special requires	

## 注 Note :

- 如机房尺寸有限制请提供机组机房布置图。  
If the room size limited please provide unit equipment room arrangement drawing.
- 功能段名称请按顺气流方向排列填写。  
Please fill the function name out according to the arrangement in the airflow direction.
- 如有不明确请和创元市场部联系。  
If there is any unclear, please contact with ChuangYuan marketing department.



流量单位换算表 Flow unit conversion table

立方米/小时 CMH	美制加仑/分 GPM	立方英尺/分 CFM	升/秒 l/s
1	4.4	0.589	0.278
0.227	1	0.134	0.063
1.699	7.48	1	0.472
3.6	15.85	2.12	1

功率单位换算表 Power unit conversion table

瓦 W	公制马力PS	英制马力HP	千克力·米/秒Kg.m/s	千卡/秒cal/s
1	0.00136	0.0134	0.102	$2.389 \times 10^{-4}$
735.5	1	0.985	75	0.175
745.7	1.014	1	76.04	0.1781
9.807	0.0133	0.01315	1	$2.34 \times 10^{-3}$
4187	5.7	5.61	427	1

比焓单位换算表 Specific enthalpy unit conversion table

瓦 W	千焦/时 KJ/h	千卡/时 kcal/h	美国冷吨 USRT	日本冷吨 JPNRT	新英国冷吨 UKRT	英热单位/时 BTU/h
1	3.6	0.86	$2.843 \times 10^{-4}$	$2.59 \times 10^{-4}$	$2.395 \times 10^{-4}$	3.412
0.2778	1	0.239	$7.898 \times 10^{-5}$	$7.19 \times 10^{-5}$	$6.654 \times 10^{-5}$	0.948
1.163	4.19	1	$3.307 \times 10^{-4}$	$3.01 \times 10^{-4}$	$2.786 \times 10^{-4}$	3.968
3516.9	$1.27 \times 10^4$	3024	1	0.911	0.842	$1.2 \times 10^4$
3861.1	$1.39 \times 10^4$	3320	1.098	1	0.925	$1.318 \times 10^4$
4174.5	$1.5 \times 10^4$	3589	1.187	1.081	1	$1.424 \times 10^4$
0.293	1.06	0.252	$8.33 \times 10^{-5}$	$7.59 \times 10^{-5}$	$7.02 \times 10^{-5}$	1

温度换算表 Temperature unit conversion table

温度 Temperature	摄氏度 t °C	华氏度 t <sub>1</sub> °F	开尔文 t <sub>2</sub> K
t	t	9/5 t+32	t+273
t <sub>1</sub> °F	5/9 ( t <sub>1</sub> - 32 )	t <sub>1</sub>	5/9 ( t <sub>1</sub> - 32 ) +273
t <sub>2</sub> K	t <sub>2</sub> - 273	9/5 ( t <sub>2</sub> - 273 ) +32	t <sub>2</sub>

## 注 Note :

不同温标的温差转换公式

The difference in temperature of different scale conversion formula

- $t_1$  ( °F ) =  $9/5$  t ( )
- t ( ) =  $9/5$  t<sub>1</sub> ( °F )