



**西麦柯(广东)  
制冷科技股份有限公司**

Xi Maike(Guangdong) Refrigeration Technology Co.,Ltd



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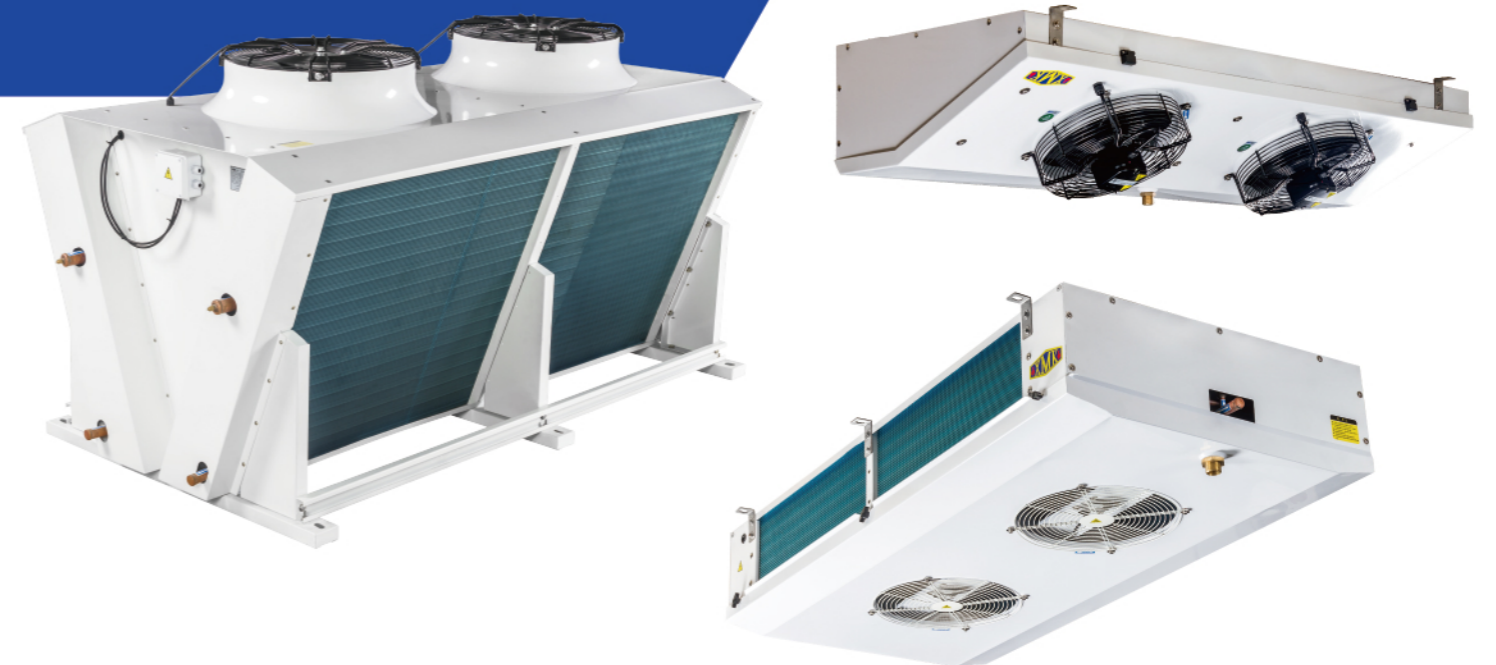
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## 公司简介

广州西麦柯制冷通用设备有限公司是一家专门从事制冷设备研发和制造的专业性的工厂。公司拥有经验丰富、技术先进的研发团队,瞄准行业的发展不断开发创新。公司具有先进的生产资源,包括管片式换热器生产设备、钣金生产设备、冷风机装配线及机组装配线。为了确保产品质量,公司建立了严格的产品质量管理体系,从原材料到生产的每个环节直至最后成品,都进行严格层层把关。

公司的主导产品包括管片式冷凝器、各种冷风机、制冷压缩冷凝机组等,广泛应用于宾馆、饭店、超市、食品、卫生、医药、农业等行业,产品遍布全国各地及远销越南、泰国、巴基斯坦、澳大利亚、南非等海外国家。



## Company Introduction

Guangzhou Ximaik Refrigeration General Equipment Co., Ltd. is a professional factory specializing in the research and development and manufacture of refrigeration equipment. The company has an experienced and technologically advanced R&D team, aiming at the development of the market and constantly developing and innovating. The company has advanced production resources, including tube-fin heat exchanger processing equipment, sheet metal processing equipment, cooler assembly line and condensing unit assembly line. In order to ensure product quality, the company has established a strict product quality management system, from rawmaterials to production of each link to the final product, are strict layer by layer checks.

The company's leading products include air condensers, various air coolers, refrigeration units and condensing units, etc. They are widely used in hotels, restaurants, supermarkets, food, health, medicine, agriculture and other industries. The products are sold all over the china and in Vietnam, Thailand, Pakistan, Australia, South Africa and other overseas countries.

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# 产品索引 Product Index

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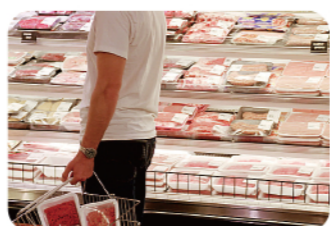






# DE 系列冷风机

## DE series unit coolers



## DE 系列冷风机 / DE series unit coolers

### 1、产品概述 / Product description:

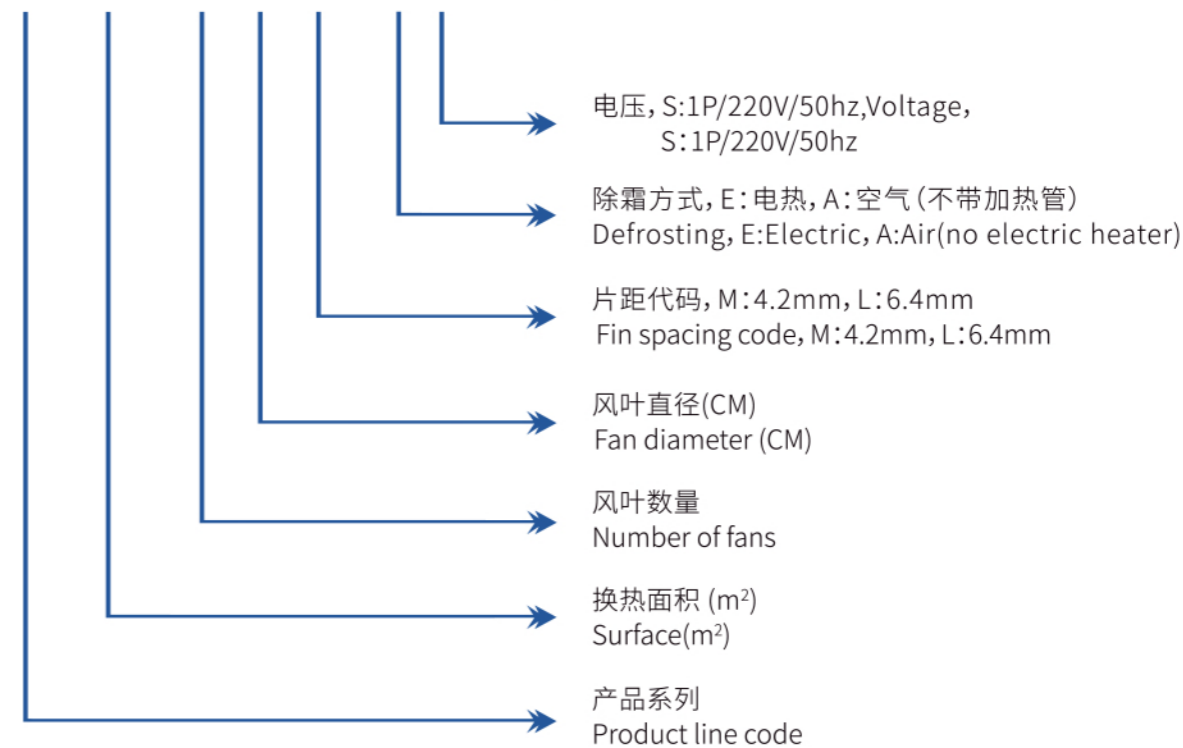
DE 系列冷风机主要用于冷柜作为蒸发器使用。

DE series air cooler offers a range of solutions which make it adaptable and convenient for small cold rooms as well as refrigerated cabinets and counters.

- ① 外壳:采用铝镁合金板,防腐性能强、重量轻;  
Casing:Using Al-Mg alloy sheet, it has strong anti- corrosive property and light weight.
- ② 盘管:采用φ12铜管、管间距38.1×33;  
波纹式铝片,片距有4.2mm、6.4mm;  
Heat Exchanger Coil:copper tubing φ12,Spacing 38.1×33,  
Corrugated aluminium fins,fin spacing 4.2mm&6.4mm.
- ③ 风机: 方型罩极电机;使用温度-25℃~50℃;  
风机规格: φ200, 数量从1-5只.  
Fans: shaded Pole Motor,  
Working temperature -25~50°C,  
Fan specificationφ200,Number from 1 to 5.
- ④ 电热除霜: 采用不锈钢加热管,安装于翅片底部;  
Electric Defrost:stainless steel heating tube installed at the bottom of the fin.
- ⑤ 防水接线盒,接线方便;  
Waterproof junction box, convenient connection
- ⑥ 可满足R404A、R507A、R448A、R449A、R134a、R22等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.

### 2、产品型号说明 / Model Explanation:

#### DE 4.5 / 2 20 M - E S





### 3、性能数据表 / Performance data sheet:

型号 Model	制冷量 R404A (KW) Capacity		换热面积 surface m <sup>2</sup>	管容积 Tube volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 airthrow m	接口规格(mm) Connection pipe			重量 weight kg
	Tc=0°C ΔT=8K	Tc = -18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
4.2mm 片距 fin spacing										
DE2.1/120M-ES	0.45	0.36	2.1	0.46	250	3	φ12	φ12	G3/4"	4
DE4.5/220M-ES	0.96	0.77	4.5	0.9	500	4	φ12	φ12	G3/4"	8
DE7.0/320M-ES	1.5	1.2	7.0	1.32	750	5	φ12	φ12	G3/4"	13
DE9.0/420M-ES	1.9	1.52	9.0	1.7	1000	6	φ12	φ12	G3/4"	16
DE10.5/520M-ES	2.2	1.76	10.4	1.93	1250	7	φ12	φ12	G3/4"	19
6.4mm 片距 fin spacing										
DE1.4/120L-ES	0.4	0.32	1.4	0.46	250	3	φ12	φ12	G3/4"	4
DE3.1/220L-ES	0.85	0.68	3.1	0.9	500	4	φ12	φ12	G3/4"	8
DE4.7/320L-ES	1.26	1.0	4.7	1.32	750	5	φ12	φ12	G3/4"	13
DE6.1/420L-ES	1.7	1.36	6.1	1.7	1000	6	φ12	φ12	G3/4"	16
DE7.1/520L-ES	2.0	1.6	7.1	1.93	1250	7	φ12	φ12	G3/4"	19

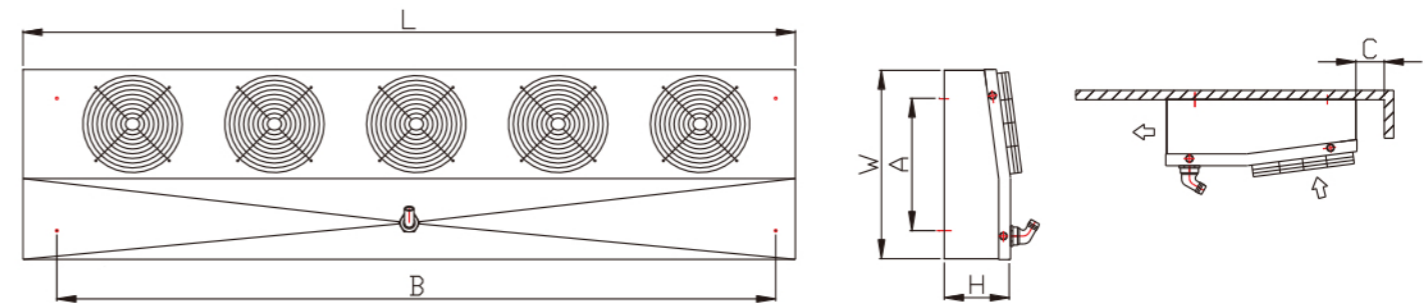
1 备注：表中 Tc 为库温，ΔT 为库温与蒸发温度之差。  
Remarks: In the table, Tc is the cold room Temp., and ΔT is the difference between the cold room Temp. and the evaporation Temp.

### 4、电器参数表 / Electrical parameter table:

型号 Model	风扇电机 Fan motors				电热除霜(KW) Defrosting
	电压 Voltage (V)	功率 Power (W)	电流 Current (A)	转速 Rev. (r/min)	
DE2.1/120M-ES DE1.4/120L-ES	220-1	40	0.23	1300	0.3
DE4.5/220M-ES DE3.1/220L-ES	220-1	80	0.46	1300	0.6
DE7.0/320M-ES DE4.7/320L-ES	220-1	120	0.69	1300	0.9
DE9.0/420M-ES DE6.1/420L-ES	220-1	160	0.92	1300	1.1
DE10.5/520MES DE7.1/520L-ES	220-1	200	1.15	1300	1.3

### 5、外形及安装尺寸 / Outline&installation dimension:

型号 Model	外形尺寸 Outlinedimension (mm)			安装尺寸 Installation dimension (mm)			
	L	W	H	A	B	C	安装孔 hole
DE2.1/120M-ES DE1.4/120L-ES	434	404	140	194	320	50	4-φ 6.5
DE4.5/220M-ES DE3.1/220L-ES	784	404	140	194	670	50	4-φ 6.5
DE7.0/320M-ES DE4.7/320L-ES	1134	404	140	194	1020	50	4-φ 6.5
DE9.0/420M-ES DE6.1/420L-ES	1434	404	140	194	1320	50	4-φ 6.5
DE10.5/520M-ES DE7.1/520L-ES	1634	404	140	194	1520	50	4-φ 6.5







# CA 系列紧凑型冷风机

## Series Compact Air Coolers



## CA 系列紧凑型冷风机 CA Series Compact Unit Coolers

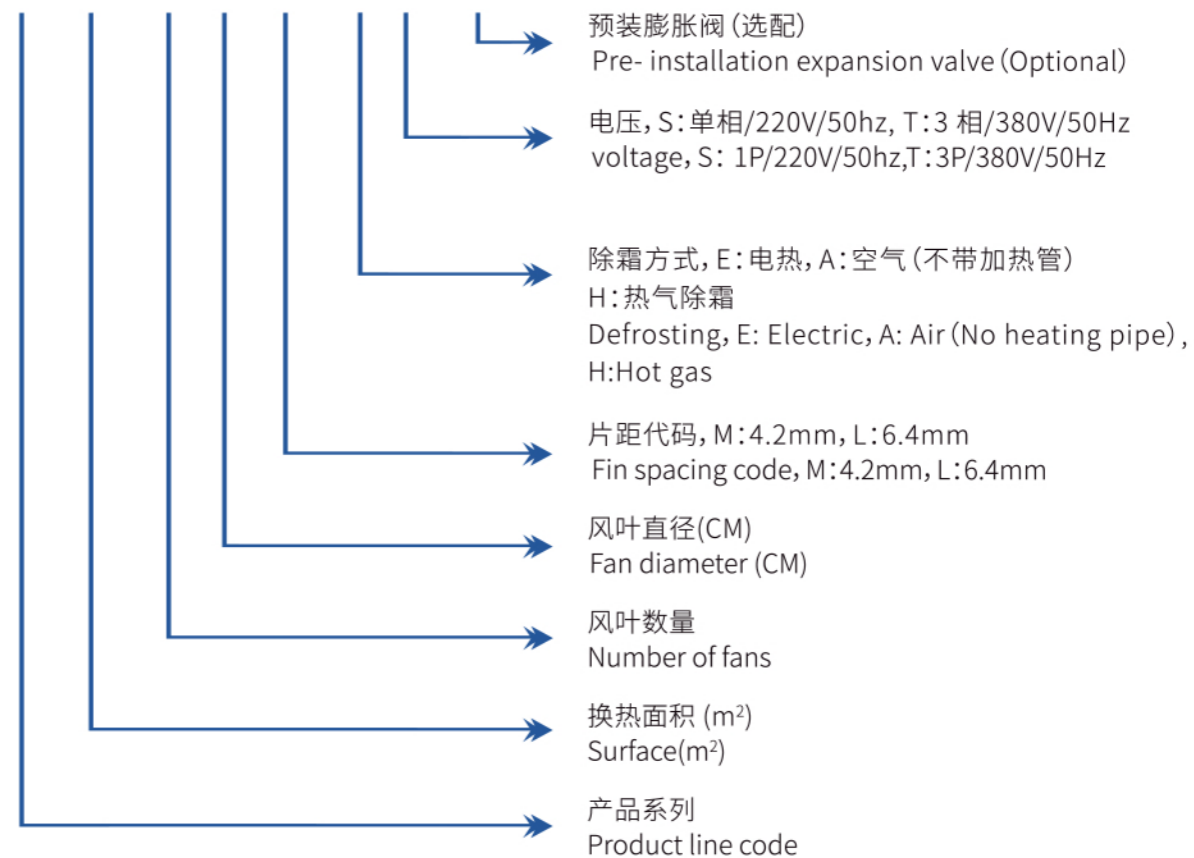
### 1、产品概述 / Product description:

CA 系列紧凑型冷风机主要用于小型冷库, 占用冷库空间小。  
CA series compact unit coolers are mainly used in small cold room, which occupy less space.

- 1** 外壳: 采用铝镁合金板, 表面喷塑, 防腐性能强、重量轻; 水盘板采用铰链式结构, 清洗操作方便快捷;  
Casing: Al-Mg alloy sheet with powder coating (RAL9003), strong anti-corrosion performance and light weight  
Drip tray adopts hinge structure, easy to clean and operate
- 2** 盘管: 采用φ12 铜管、管间距 38.1×33; 波纹式铝片, 片距有 4.2mm、6.4mm;  
Heat Exchanger Coil:  
Copper tubing φ12, Spacing 38.1×33  
Corrugated aluminium fins, fin spacing 4.2mm&6.4mm
- 3** 采用不锈钢加热管, 安装于盘管中间及内水盘板上; 独立的加热管接线盒。  
Electric defrost:  
Using stainless heating pipes, installed in the middle of coil and inner water plate; Independent electric heating pipe junction box
- 4** 风机: 外转子风机, 带防水线盒; 使用温度 -40°C ~60°C; 独立接线盒; 风机规格φ300, 数量从1-4只。  
External rotor motor with waterproof, working temperature -40~60°C.  
Fans individually connected to junction box.  
Fan specification φ300, number from 1 to 4.
- 5** 可满足R404A、R507A、R134a、R448A、R449A、R22等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.

### 2、产品型号说明 / Model Explanation:

#### CA 20/ 3 30 M - E S - V





### 3、性能数据表 / Performance data sheet:

型号 Model	制冷量/R404A (KW) Capacity		换热面积 surface m <sup>2</sup>	管容积 Tube volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 airthrow m	接口规格(mm) Connection pipe			重量 weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
4.2mm 片距 Fin Spacing										
CA7/130M-ES	1.8	1.4	6.8	1.3	1200	6	φ12	φ16	G3/4"	16
CA9/130M-ES	2.2	1.8	9.0	1.8	1100	6	φ12	φ16	G3/4"	17
CA14/230M-ES	3.7	3.0	13.6	2.5	2400	8	φ12	φ19	G3/4"	32
CA18/230M-ES	4.3	3.4	18.1	3.4	2200	8	φ12	φ19	G3/4"	34
CA21/330M-ES	5.6	4.5	20.9	3.8	3600	10	φ12	φ22	G3/4"	47
CA28/330M-ES	6.6	5.3	27.8	5.1	3300	10	φ12	φ22	G3/4"	49
CA27/430M-ES	7.3	5.8	27.1	5.0	4800	12	φ12	φ22	G3/4"	67
CA36/430M-ES	8.7	7.0	36.2	6.6	4400	12	φ12	φ22	G3/4"	70
6.4mm 片距 Fin Spacing										
CA5/130L-ES	1.5	1.2	4.6	1.3	1350	7	φ12	φ16	G3/4"	16
CA6/130L-ES	1.8	1.4	6.1	1.8	1200	7	φ12	φ16	G3/4"	17
CA9/230L-ES	3.0	2.4	9.2	2.5	2700	9	φ12	φ19	G3/4"	32
CA12/230L-ES	3.7	3.0	12.3	3.4	2400	9	φ12	φ19	G3/4"	34
CA14/330L-ES	4.6	3.7	14.2	3.8	4050	11	φ12	φ22	G3/4"	47
CA19/330L-ES	5.7	4.5	18.9	5.1	3600	11	φ12	φ22	G3/4"	49
CA18/430L-ES	6.1	4.9	18.4	5.0	5400	13	φ12	φ22	G3/4"	67
CA25/430L-ES	7.4	5.9	24.6	6.6	4800	13	φ12	φ22	G3/4"	70

1 备注：表中 Tc 为库温，ΔT 为库温与蒸发温度之差。  
Remarks: In the table, Tc is the cold room Temp., and ΔT is the difference between the cold room Temp. and the evaporation Temp.

### 4、电器参数表 / Electrical parameter table:

型号 Model	风扇电机 Fan motor				电热除霜 Defrosting		
	电压 (V)	功率 (W)	电流 (A)	转速 (r/min)	盘(KW)	水盘(KW)	总功率(KW)
	voltage	Power	Current	Rev.	Coil	Tray	Total
CA*/130**	220-1	93	0.44	1330	0.6	0.6	1.2
CA*/230**	220-1	186	0.88	1330	1.1	1.1	2.2
CA*/330**	220-1	279	1.32	1330	1.7	1.7	3.4
CA*/430**	220-1	372	1.76	1330	2.2	2.2	4.4

### 5、外形及安装尺寸 / Outline&installation dimension:

型号 Model	外形尺寸 Outline dimension(mm)			安装尺寸 Installation dimension(mm)					
	L	W	H	A	B	B1	B2	C	安装孔 Hole
CA*/130**	905	635	287	595	680	/	/	150	4-φ11.5
CA*/230**	1555	635	287	595	1330	/	/	150	4-φ11.5
CA*/330**	2255	635	287	595	2030	668	/	150	6-φ11.5
CA*/430**	2855	635	287	595	2630	/	1300	150	6-φ11.5







# CDB 系列商用型双面侧吹风冷风机

## CDB Series Commercial Dual Discharge Unit Coolers

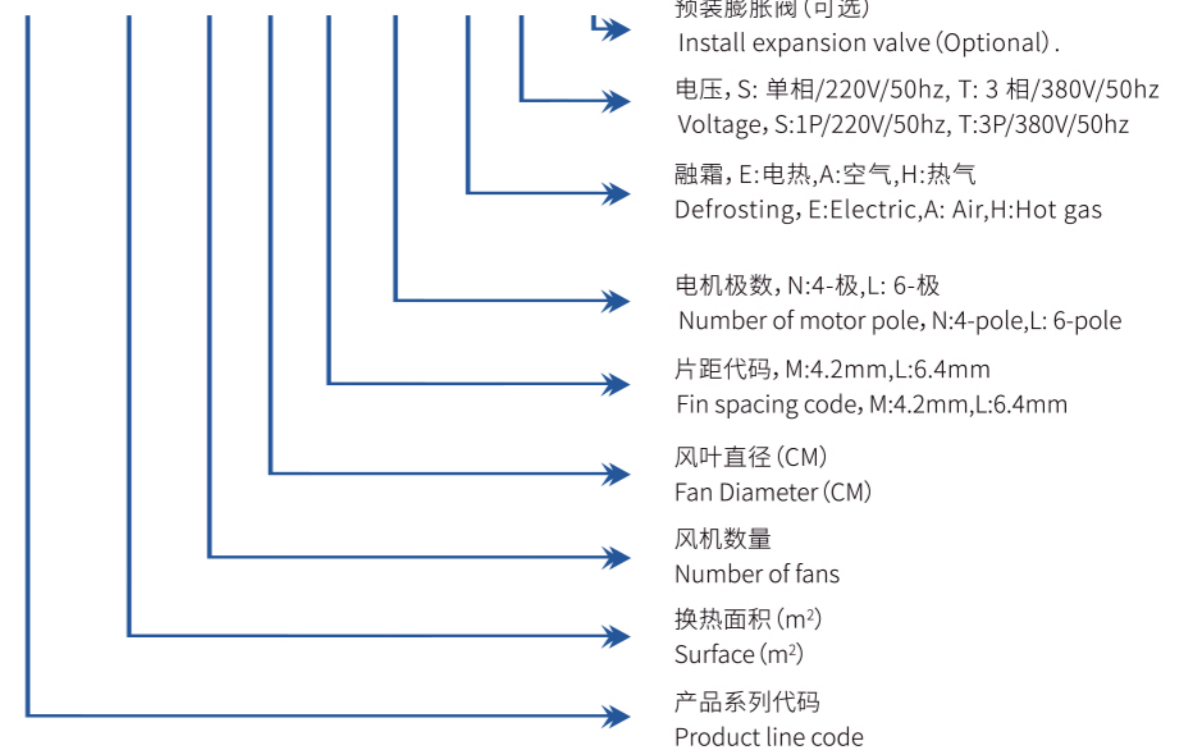
### 1、产品概述 / Product description:

CDB 系列商用型双面侧吹风型冷风机主要用于小型操作间。  
CDB series commercial dual discharge coolers is mainly used in small operating rooms.

- 1** 外壳：采用铝镁合金板，表面喷塑，防腐性能强、重量轻；外水盘板采用整体式带铰链结构，清洗操作方便快捷；  
Casing:  
Al-Mg alloy sheet with powder coating RAL9003, strong anti-corrosion performance and light weight.  
Outer drip tray adopts integral hinged structure, easy to clean and operate.
- 2** 盘管：采用φ12 铜管、管间距 38.1×33；波纹式铝片，片距有 4.2mm、6.4mm；  
Heat exchanger Coil:  
Copper tubingφ12,Spacing 38.1×33  
Corrugated aluminium fins,fin spacing 4.2mm&6.4mm
- 3** 可满足R404A、R507A、R134a、R448A、R449A、R22 等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.
- 4** 风机：外转子风机,使用温度-40℃~60℃；独立接线盒；  
风机规格φ350，数量从1-4只，风扇电机分4极和6极，以满足不同的噪音要求；  
External rotor motor ,working temperature -40~60℃, fans individually connected to junction box  
Fan specificationφ350,number from 1 to 4,fan motors are divided into 4- poles and 6- poles to meet different noise requirements.
- 5** 标准采用电热除霜，不锈钢加热管安装于盘管中间及内水盘上,独立的加热管接线盒也可以采用热气除霜或盘管热气除霜、水盘电热除霜方式。  
Defrosting:  
Standard use of electric defrosting,stainless heating pipes installed in the middle of coil and inner water plate.Independent electric heating tube junction box. Hot gas defrosting or coil hot gas defrosting & water plate electric defrosting can also be used.

### 2、产品型号说明 / Model Explanation:

**CDB 42 / 3 35 M N - E S - V**



# CDB

## 系列商用型双面侧吹风冷风机

### Series Commercial Dual Discharge Unit Coolers





3、性能数据表 / Performance data sheet:

型号 Model	制冷量/R404A (KW) Capacity		换热面积 surface m <sup>2</sup>	管容积 Tube volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 airthrow m	接口规格(mm) Connection pipe			重量 weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
4.2mm 片距、4 极电机 (转速 1380rpm) Fin Spacing 4.2mm,4-pole motor(Rev. 1380 rpm)										
CDB14/135MN-ES	3.2	2.6	13.6	2.7	1900	2×10	φ12	φ19	G1"	26
CDB18/135MN-ES	3.8	3.0	18.1	3.6	1700	2×9	φ12	φ19	G1"	28
CDB27/235MN-ES	5.6	4.5	24.1	5.0	3800	2×11	φ12	φ22	G1"	52
CDB36/235MN-ES	7.6	6.1	36.2	6.8	3400	2×10	φ12	φ22	G1"	56
CDB42/335MN-ES	9.8	7.8	41.7	7.7	5700	2×12	φ16	φ28	G1"	77
CDB56/335MN-ES	11.7	9.3	55.7	10.2	5100	2×11	φ16	φ28	G1"	82
CDB54/435MN-ES	12.8	10.2	54.3	10.0	7600	2×13	φ16	φ28	G1"	104
CDB72/435MN-ES	15.2	12.2	72.4	13.1	6800	2×12	φ16	φ28	G1"	110
4.2mm 片距, 6 极电机 (转速 950rpm) Fin Spacing 4.2mm,6-pole motor(Rev. 950 rpm)										
CDB14/135ML-ES	2.2	1.8	13.6	2.7	1150	2×7	φ12	φ19	G1"	26
CDB18/135ML-ES	2.7	2.2	18.1	3.6	1000	2×6	φ12	φ19	G1"	28
CDB27/235ML-ES	4.0	3.2	24.1	5.0	2300	2×8	φ12	φ22	G1"	52
CDB36/235ML-ES	5.4	4.3	36.2	6.8	2000	2×7	φ12	φ22	G1"	56
CDB42/335ML-ES	6.9	5.5	41.7	7.7	3450	2×9	φ16	φ28	G1"	77
CDB56/335ML-ES	8.3	6.7	55.7	10.2	3000	2×8	φ16	φ28	G1"	82
CDB54/435ML-ES	9.0	7.2	54.3	10.0	4600	2×10	φ16	φ28	G1"	104
CDB72/435ML-ES	10.9	8.7	72.4	13.1	4000	2×9	φ16	φ28	G1"	110
6.4mm 片距, 4 极电机 (转速 1380rpm) Fin Spacing 6.4mm,4-pole motor(Rev. 1380 rpm)										
CDB9/135LN-ES	2.4	1.9	9.1	2.7	2050	2×10	φ12	φ19	G1"	26
CDB12/135LN-ES	3.0	2.4	12.3	3.6	1800	2×9	φ12	φ19	G1"	28
CDB16/235LN-ES	4.2	3.4	16.2	5.0	4100	2×11	φ12	φ22	G1"	52
CDB25/235LN-ES	6.0	4.8	24.6	6.8	3600	2×10	φ12	φ22	G1"	56
CDB28/335LN-ES	7.2	5.8	27.7	7.7	6150	2×12	φ16	φ28	G1"	77
CDB37/335LN-ES	9.0	7.2	36.9	10.2	5400	2×11	φ16	φ28	G1"	82
CDB37/435LN-ES	9.6	7.7	36.9	10.0	8200	2×13	φ16	φ28	G1"	104
CDB49/435LN-ES	12.1	9.7	49.2	13.1	7200	2×12	φ16	φ28	G1"	110
6.4mm 片距, 6 极电机 (转速 950rpm) Fin Spacing 6.4mm,6-pole motor(Rev. 950 rpm)										
CDB9/135LL-ES	2.0	1.6	9.1	2.7	1300	2×7	φ12	φ19	G1"	26
CDB12/135LL-ES	2.5	2.0	12.3	3.6	1100	2×6	φ12	φ19	G1"	28
CDB16/235LL-ES	3.5	2.8	16.2	5.0	2600	2×8	φ12	φ22	G1"	52
CDB25/235LL-ES	4.9	3.9	24.6	6.8	2200	2×7	φ12	φ22	G1"	56
CDB28/335LL-ES	6.0	4.8	28.4	7.7	3900	2×9	φ16	φ28	G1"	77
CDB38/335LL-ES	7.5	6.0	37.8	10.2	3300	2×8	φ16	φ28	G1"	82
CDB37/435LL-ES	7.9	6.3	36.9	10.0	5200	2×10	φ16	φ28	G1"	104
CDB49/435LL-ES	9.8	7.8	49.2	13.1	4400	2×9	φ16	φ28	G1"	110

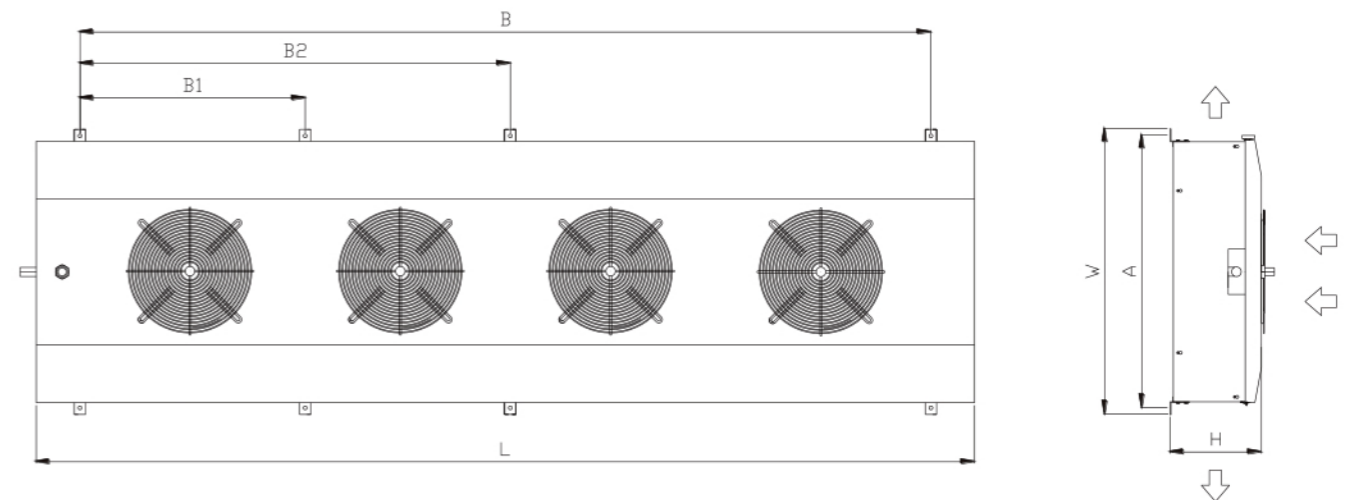
1 备注: 表中 Tc 为库温, ΔT 为库温与蒸发温度之差。  
Remarks: In the table, Tc is the cold room Temp., and ΔT is the difference between the cold room Temp. and the evaporation Temp.

4、电器参数表 / Electrical parameter table:

型号 Model	风扇电机 Fans motor				电热除霜 Defrosting		
	电压 voltage (V)	功率 power (W)	电流 current (A)	转速 Rev. (r/min)	盘管 Coil (KW)	水盘 Tray (KW)	总功率 Total (KW)
CDB*/135MN-ES	220-1	170	0.78	1380	2×0.6	2×0.6	2.4
CDB*/135LN-ES							
CDB*/235MN-ES	220-1	340	1.56	1380	2×1.1	2×1.1	4.4
CDB*/235LN-ES							
CDB*/335MN-ES	220-1	510	2.34	1380	2×1.7	2×1.7	6.8
CDB*/335LN-ES							
CDB*/435MN-ES	220-1	680	3.12	1380	2×2.2	2×2.2	8.8
CDB*/435LN-ES							
CDB*/135ML-ES	220-1	95	0.4	950	2×0.6	2×0.6	2.4
CDB*/135LL-ES							
CDB*/235ML-ES	220-1	190	0.8	950	2×1.1	2×1.1	4.4
CDB*/235LL-ES							
CDB*/335ML-ES	220-1	285	1.2	950	2×1.7	2×1.7	6.8
CDB*/335LL-ES							
CDB*/435ML-ES	220-1	380	1.6	950	2×2.2	2×2.2	8.8
CDB*/435LL-ES							

5、外形及安装尺寸 / Outline&installation dimension:

型号 Model	外形尺寸(mm) Outline dimension			安装尺寸 (mm) installation dimension				
	L	W	H	A	B	B1	B2	安装孔 Installation hole
CDB*/135**	950	886	295	847	680	/	/	4-φ11.5
CDB*/235**	1600	886	295	847	1330	/	/	4-φ11.5
CDB*/335**	2300	886	295	847	2030	696	/	6-φ11.5
CDB*/435**	2900	886	295	847	2630	/	1330	6-φ11.5







## IDB 系列工业型双面侧吹风冷风机 IDB Series Industrial Dual Discharge Unit Coolers

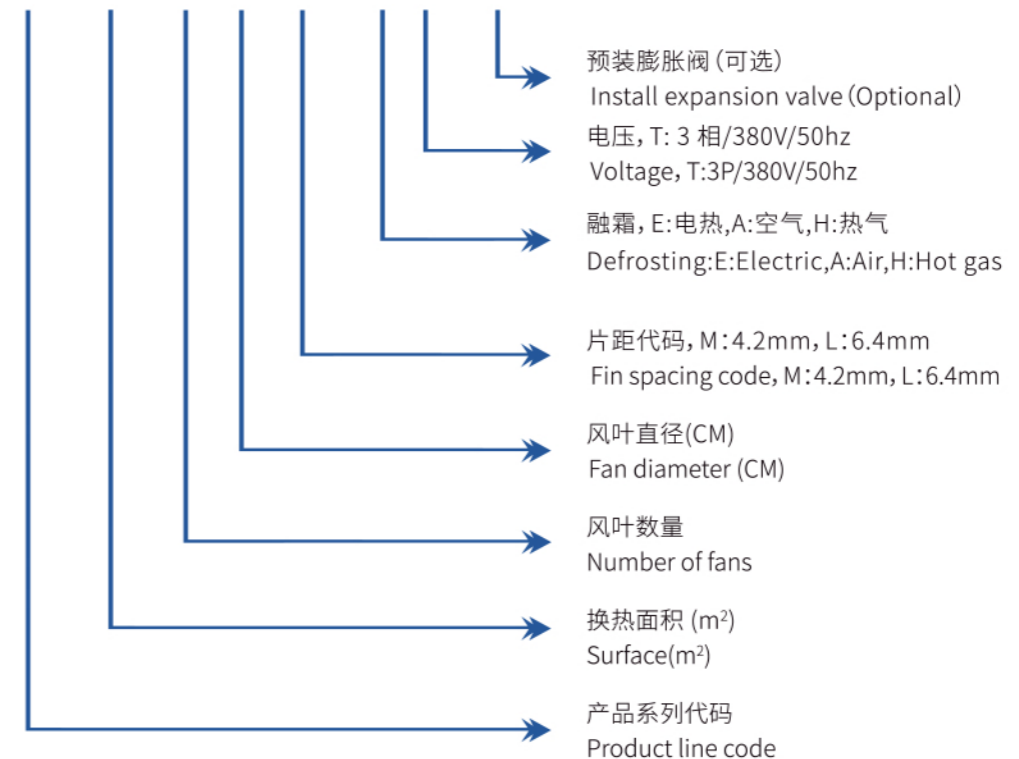
### 1、产品概述 / Product description:

IDB系列工业型双面侧吹风型冷风机主要用于中大型冷库操作间。  
IDB series industrial dual discharge coolers is mainly used in medium and large cold room with personnel operation.

- 1 采用优质钢板表面喷塑,防腐性能强;  
外水盘板采用独立式带铰链结构,清洗操作方便快捷;  
Casing: Adopt high-quality steel plate with powder coating RAL9003, Outer drip tray adopts hinged structure, easy to clean and operate.
- 2 盘管:采用φ15铜管、管间距50×50;  
波纹式铝片,片距有4.2mm、6.4mm;  
Heat Exchanger Coil: Copper tubingφ15,spacing 50×50, Corrugated aluminium fins,fin spacing 4.2mm&6.4mm.
- 3 可满足R404A、R507A、R134a、R448A、R449A、R22等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.
- 4 风机:外转子风机,使用温度-40°C~60°C;独立接线盒;  
风机规格φ450,数量从1-4只,标准采用4极电机;  
Fans:External rotor motor,working temperature -40~60°C, Fans individually connected to junction box. Fan bladeφ450,number from 1 to 4,standard 4-pole motor.
- 5 除霜:标准采用电热除霜,不锈钢加热管安装于盘管中间及内水盘板上,独立的加热管接线盒。也可以采用热气除霜或盘管热气除霜、水盘电热除霜方式。  
Defrosting: Standard use of electric defrosting, stainless heating pipes installed in the middle of coil and inner water plate. Independent electric heating tube junction box. Hot gas defrosting can also be used.

### 2、产品型号说明 / Model Explanation:

**IDB 99/ 3 45 M - E T - V**



## IDB 系列工业型双面侧吹风冷风机 Series Industrial Dual Discharge Unit Coolers





### 3、性能数据表 / Performance data sheet:

型号 Model	制冷量/R404A (KW) Capacity		换热面积 Surface	管容积 Tube volume	风量 airflow	射程 airthrow	接口规格(mm) Connection pipe			重量 weight
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
4.2mm 片距 Fin spacing 4.2mm										
IDB37/145M-ET	6.3	5.0	37.3	6	4800	2×10	φ12	φ22	G1"	65
IDB50/145M-ET	7.7	6.2	49.8	8	4500	2×10	φ12	φ22	G1"	70
IDB66/245M-ET	11.3	9.0	66.4	11	9600	2×12	φ12	φ28	G1"	110
IDB100/245M-ET	15.4	12.3	99.5	15	9000	2×12	φ22	φ35	G1"	120
IDB112/345M-ET	19.0	15.2	112.0	17	14400	2×15	φ22	φ35	G1"	158
IDB149/345M-ET	23.1	18.5	149.3	22	13500	2×15	φ22	φ35	G1"	173
IDB149/445M-ET	25.3	20.2	149.3	22	19200	2×18	φ22	φ35	G1"	208
IDB199/445M-ET	30.8	24.6	199.0	29	18000	2×18	φ22	φ42	G1"	225
6.4mm 片距 Fin spacing 6.4mm										
IDB25/145L-ET	5.3	4.2	25.0	6	5000	2×11	φ12	φ22	G1"	62
IDB34/145L-ET	6.4	5.1	33.5	8	4800	2×11	φ12	φ22	G1"	65
IDB45/245L-ET	9.3	7.4	44.5	11	10000	2×13	φ12	φ28	G1"	104
IDB67/245L-ET	12.7	10.2	66.7	15	9600	2×13	φ22	φ35	G1"	111
IDB75/345L-ET	15.8	12.6	75.0	17	15000	2×16	φ22	φ35	G1"	148
IDB100/345L-ET	19.0	15.2	100.0	22	14400	2×16	φ22	φ35	G1"	160
IDB100/445L-ET	21.0	16.8	100.0	22	20000	2×19	φ22	φ35	G1"	195
IDB133/445L-ET	25.3	20.2	133.4	29	19200	2×19	φ22	φ42	G1"	208

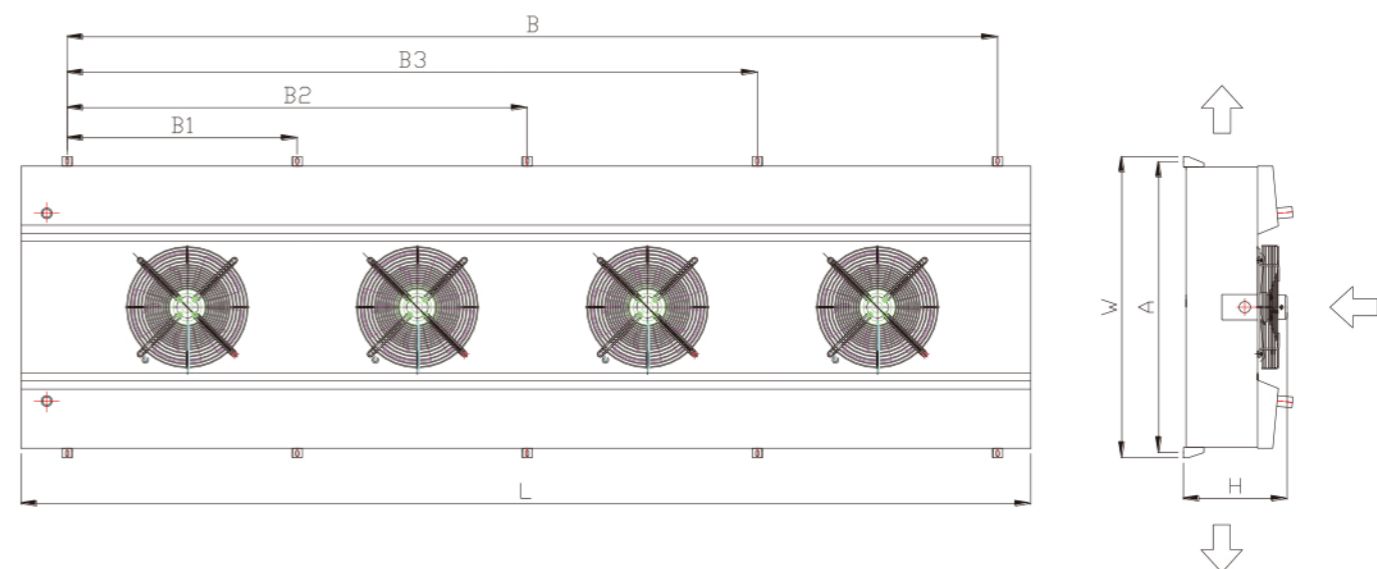
1 备注：表中 Tc 为库温，ΔT 为库温与蒸发温度之差。  
Remarks: In the table, Tc is the cold room Temp., and ΔT is the difference between the cold room Temp. and the evaporation Temp.

### 4、电器参数表 / Electrical parameter table:

型号 Model	风扇电机 FanMotor				电热除霜 Defrost		
	电压 Voltage (V)	功率 Power (W)	电流 Current (A)	转速 Rev. (r/min)	盘管 Coil (KW)	水盘 Tray (KW)	总功率 Total (KW)
IDB37/145M-ET IDB25/145L-ET	380-3	390	0.78	1365	2×0.85	2×0.9	3.5
IDB50/145M-ET IDB34/145L-ET	380-3	390	0.78	1365	4×0.85	2×0.9	5.2
IDB66/245M-ET IDB45/245L-ET	380-3	780	1.56	1365	2×1.6	2×1.6	6.4
IDB100/245M-ET IDB67/245L-ET	380-3	780	1.56	1365	4×1.6	2×1.6	9.6
IDB112/345M-ET IDB75/345L-ET	380-3	1170	2.34	1365	2×2.3	2×2.3	9.2
IDB149/345M-ET IDB100/345L-ET	380-3	1170	2.34	1365	4×2.3	2×2.3	13.8
IDB149/445M-ET IDB100/445L-ET	380-3	1560	3.12	1365	2×3.0	2×3.1	12.2
IDB199/445M-ET IDB133/445L-ET	380-3	1560	3.12	1365	4×3.0	2×3.1	18.2

### 5、外形及安装尺寸 / Outline & installation dimension:

型号 Model	外形尺寸 Outline dimension (mm)			安装尺寸 Installation dimension (mm)					
	L	W	H	A	B	B1	B2	B3	安装孔 InstalHole
IDB37/145M-ET IDB25/145L-ET	1305	1130	405	1070	930	/	/	/	4-φ13
IDB50/145M-ET IDB34/145L-ET	1305	1130	405	1070	930	/	/	/	4-φ13
IDB66/245M-ET IDB45/245L-ET	2205	1130	405	1070	1830	930	/	/	6-φ13
IDB100/245M-ET IDB67/245L-ET	2205	1130	405	1070	1830	930	/	/	6-φ13
IDB112/345M-ET IDB75/345L-ET	3105	1130	405	1070	2730	930	1830	/	8-φ13
IDB149/345M-ET IDB100/345L-ET	3105	1130	405	1070	2730	930	1830	/	8-φ13
IDB149/445M-ET IDB100/445L-ET	4005	1130	405	1070	3630	930	1830	2730	10-φ13
IDB199/445M-ET IDB133/445L-ET	4005	1130	405	1070	3630	930	1830	2730	10-φ13







# HS 系列吊顶式冷风机

## HS series ceiling air cooler



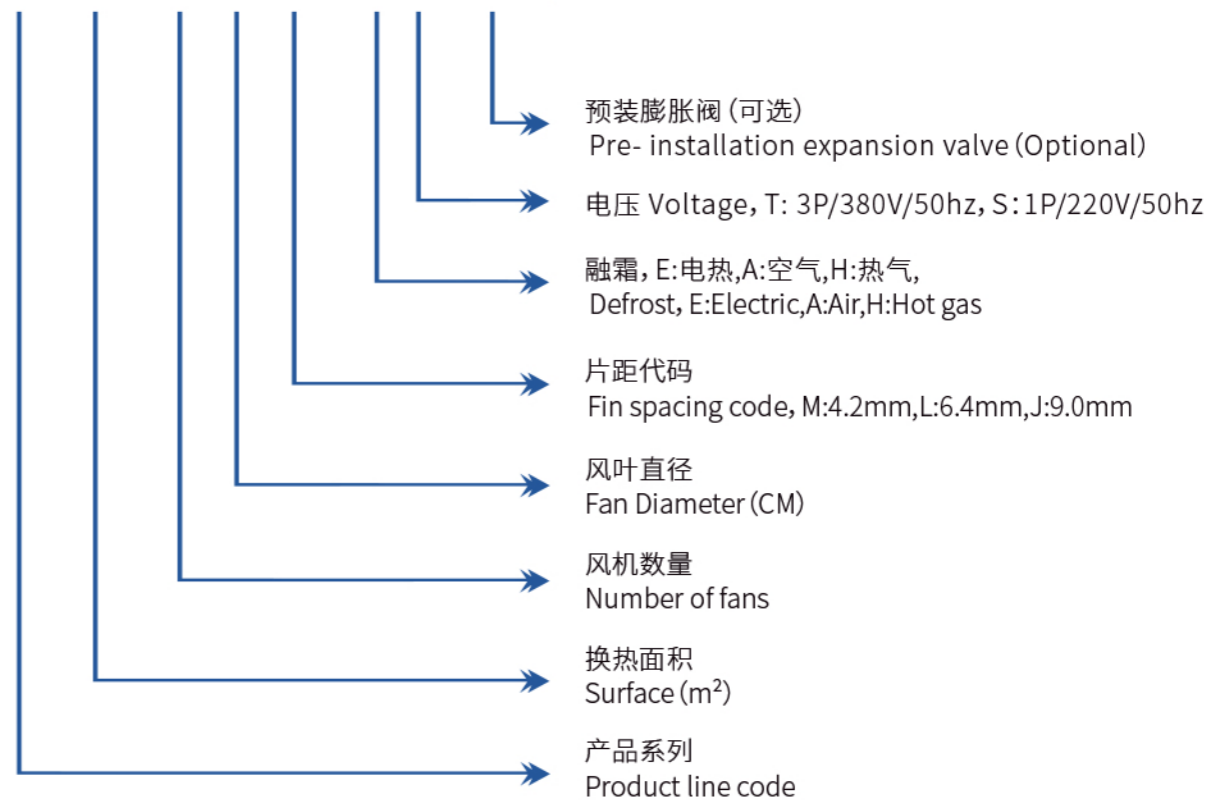
## HS 系列冷风机 / DE series unit coolers

### 1、产品概述 / Product description:

- 1 外壳:  
采用优质钢板表面喷塑,防腐性能强;两侧板及外水盘板采用铰链式结构,操作方便快捷;  
Casing: Adopt high-quality steel plate with powder coating RAL9003; Hinged structure is adopted for both side plates and external drip tray, which is convenient and quick to operate
- 2 盘管:  
采用φ12铜管、管间距38.1×33三角型排列,盘管效率高;波纹式铝片,片距有4.2mm、6.4mm及9.0mm;  
Heat Exchanger Coil: Copper tubingφ12, spacing 38.1×33, Corrugated aluminium fins, fin spacing 4.2mm and 6.4mm and 9.0mm
- 3 可满足R404A、R507A、R448A、R449A、R134a、R22等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants
- 4 风机:  
外转子风机,大功率、高风压设计;使用温度-40℃~60℃;整体拉伸高风筒设计,导风效果好、射程远、噪音低;独立的接线盒;风机规格φ300、φ350、φ400、φ500  
Fans: External rotor motor with high wind pressure, working temperature -40~60℃. High air duct design with integral stretching, good ventilation effect, further airtthrow, lower noise. Fans individually connected to junction box. Fan bladeφ300, φ350, φ400, φ500, standard 4-pole motor
- 5 除霜:  
标准采用电热除霜,不锈钢加热管均布于盘管翅片及内水盘板上,独立的加热管接线盒。也可以采用热气除霜或盘管热气、水盘电热的除霜方式  
Defrosting: Standard use of electric defrosting, stainless heating pipes installed in the middle of coil and inner water plate. Independent electric heating tube junction box. Hot gas defrosting or coil hot gas defrosting can also be used.

### 2、产品型号说明 / Model Explanation:

#### HS 74 / 3 40 M - E T - V





### 3. 性能数据表 Performance data sheet:

#### 3.1 片距 4.2mm Fin spacing 4.2mm

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc= -18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列 Fan 300										
HS11/130M-ES	2.6	2.1	10.5	2.1	1700	6	φ12	φ19	G1"	32
HS14/130M-ES	3.2	2.5	13.9	2.8	1500	5	φ12	φ19	G1"	34
HS21/230M-ES	5.2	4.2	21.0	4.1	3400	8	φ12	φ19	G1"	50
HS28/230M-ES	6.4	5.1	27.9	5.5	3000	7	φ12	φ22	G1"	53
HS31/330M-ES	7.9	6.3	31.4	5.8	5100	10	φ12	φ22	G1"	68
HS42/330M-ES	9.6	7.6	41.9	8.1	4500	10	φ16	φ28	G1"	73
HS42/430M-ES	10.5	8.4	41.9	7.7	6800	12	φ12	φ22	G1"	87
HS56/430M-ES	12.9	10.3	55.9	10.6	6000	12	φ16	φ28	G1"	93
350 风机系列 Fan 350										
HS11/135M-ES	2.7	2.2	10.5	2.1	2300	6	φ12	φ19	G1"	32
HS14/135M-ES	3.4	2.7	13.9	2.8	2000	6	φ12	φ19	G1"	34
HS21/235M-ES	5.5	4.5	21.0	4.1	4600	8	φ12	φ19	G1"	50
HS28/235M-ES	6.7	5.4	27.9	5.5	4000	8	φ12	φ22	G1"	53
HS31/335M-ES	8.3	6.6	31.4	5.8	6900	10	φ12	φ22	G1"	68
HS42/335M-ES	10.1	8.0	41.9	8.1	6000	10	φ16	φ28	G1"	73
HS42/435M-ES	11.1	8.9	41.9	7.7	9200	12	φ12	φ22	G1"	87
HS56/435M-ES	13.6	10.9	55.9	10.6	8000	12	φ16	φ28	G1"	93
400 风机系列 Fan 400										
HS24/140M-ET	5.8	4.6	24.2	4.8	3000	8	φ12	φ22	G1"	49
HS36/140M-ET	7.6	6.1	36.3	7.2	2700	7	φ12	φ22	G1"	55
HS36/240M-ET	8.7	7.0	36.3	7.2	6300	11	φ16	φ28	G1"	79
HS48/240M-ET	11.6	9.2	48.3	9.0	6000	11	φ16	φ28	G1"	83
HS73/240M-ET	15.2	12.1	72.5	13.5	5400	10	φ16	φ28	G1"	91
HS74/340M-ET	17.9	14.3	74.4	13.6	9000	14	φ22	φ42	2*G1"	125
HS112/340M-ET	23.4	18.7	111.6	20.4	8100	13	φ22	φ42	2*G1"	139
HS97/440M-ET	23.2	18.5	96.7	17.5	12000	16	φ22	φ42	2*G1"	161
HS121/440M-ET	26.6	21.2	120.8	21.9	11400	15	φ22	φ42	2*G1"	170
HS145/440M-ET	30.5	24.4	145.0	26.3	10800	15	φ22	φ42	2*G1"	179
HS121/540M-ET	28.9	23.0	120.8	21.7	15000	18	φ28	φ42	3*G1"	197
HS147/540M-ET	32.4	25.9	147.3	26.5	14250	17	φ28	φ50	3*G1"	210
HS181/540M-ET	38.0	30.4	181.3	32.6	13500	17	φ28	φ50	3*G1"	223

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
500 风机系列 Fan 500										
HS38/150M-ET	10.5	8.4	37.6	7.2	6000	18	φ16	φ28	G1"	73
HS47/150M-ET	12.0	9.6	47.1	9.0	5750	17	φ16	φ28	G1"	78
HS57/150M-ET	13.6	10.8	56.5	10.8	5500	17	φ16	φ28	G1"	83
HS75/250M-ET	21.1	16.8	75.3	13.8	12000	21	φ22	φ42	G1"	135
HS94/250M-ET	24.0	19.2	94.1	17.3	11500	20	φ22	φ42	G1"	143
HS113/250M-ET	27.1	21.6	112.9	20.7	11000	20	φ22	φ42	G1"	152
HS113/350M-ET	31.6	25.2	112.9	20.5	18000	23	φ28	φ50	2*G1"	187
HS141/350M-ET	36.0	28.8	141.2	25.5	17300	22	φ28	φ50	2*G1"	201
HS169/350M-ET	40.6	32.4	169.4	30.6	16500	22	φ28	φ50	2*G1"	213
HS151/450M-ET	42.2	33.7	150.6	27.0	24000	25	φ28	φ50	3*G1"	243
HS188/450M-ET	48.0	38.4	188.2	33.8	23000	24	φ28	φ50	3*G1"	260
HS226/450M-ET	54.2	43.3	225.9	40.6	22000	24	φ28	φ50	3*G1"	277

1 备注: 1) 表中Tc为库温, ΔT为库温与蒸发温度之差。  
Remarks: 1) In the table, Tc is the cold room temp. and ΔT is the difference between the cold room and the evap. temp..

#### 3.2 片距 6.4mm Fin spacing 6.4mm

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列										
HS7/130L-ES	2.0	1.6	7.1	2.1	1800	6	φ12	φ19	G1"	31
HS10/130L-ES	2.4	1.9	9.5	2.8	1600	5	φ12	φ19	G1"	33
HS14/230L-ES	3.9	3.1	14.2	4.1	3600	8	φ12	φ19	G1"	48
HS19/230L-ES	4.7	3.7	18.9	5.5	3200	7	φ12	φ22	G1"	51
HS21/330L-ES	5.9	4.7	21.3	5.8	5400	10	φ16	φ28	G1"	65
HS28/330L-ES	7.1	5.6	28.4	8.1	4800	10	φ16	φ28	G1"	69
HS28/430L-ES	7.8	6.2	28.4	7.7	7200	12	φ16	φ28	G1"	83
HS38/430L-ES	9.5	7.6	37.8	10.6	6400	12	φ16	φ28	G1"	88



型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc= 18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
350 风机系列										
HS7/135L-ES	2.1	1.7	7.1	2.1	2400	6	φ12	φ19	G1"	31
HS10/135L-ES	2.6	2.0	9.5	2.8	2100	6	φ12	φ19	G1"	33
HS14/235L-ES	4.1	3.3	14.2	4.1	4800	8	φ12	φ19	G1"	48
HS19/235L-ES	5.0	3.9	18.9	5.5	4200	8	φ12	φ22	G1"	51
HS21/335L-ES	6.3	5.0	21.3	5.8	7200	10	φ16	φ28	G1"	65
HS28/335L-ES	7.5	6.0	28.4	8.1	6300	10	φ16	φ28	G1"	69
HS28/435L-ES	8.3	6.5	28.4	7.7	9600	12	φ16	φ28	G1"	83
HS38/435L-ES	10.0	8.0	37.8	10.6	8400	12	φ16	φ28	G1"	88
400 风机系列										
HS16/140L-ET	4.3	3.4	16.4	4.8	3200	8	φ12	φ22	G1"	48
HS25/140L-ET	5.4	4.3	24.6	7.2	2900	7	φ12	φ22	G1"	53
HS25/240L-ET	6.5	5.0	24.6	7.2	6600	12	φ16	φ28	G1"	78
HS33/240L-ET	8.5	6.8	32.8	9.0	6400	12	φ16	φ28	G1"	81
HS49/240L-ET	10.8	8.6	49.2	13.5	5800	11	φ16	φ28	G1"	88
HS50/340L-ET	13.1	10.4	50.4	13.6	9600	14	φ22	φ42	2*G1"	122
HS76/340L-ET	16.6	13.2	75.6	20.4	8700	13	φ22	φ42	2*G1"	135
HS66/440L-ET	17.1	13.6	65.6	17.5	12800	16	φ22	φ42	2*G1"	157
HS82/440L-ET	19.3	15.4	82.0	21.9	12200	15	φ22	φ42	2*G1"	165
HS98/440L-ET	21.6	17.2	98.3	26.3	11600	15	φ22	φ42	2*G1"	173
HS82/540L-ET	21.3	17.0	82.0	21.7	16000	19	φ28	φ42	3*G1"	192
HS100/540L-ET	23.5	18.8	99.9	26.5	15200	18	φ28	φ50	3*G1"	203
HS123/540L-ET	27.1	21.6	122.9	32.6	14500	18	φ28	φ50	3*G1"	215
500 风机系列										
HS26/150L-ET	8.4	6.7	25.5	7.2	6200	18	φ16	φ28	G1"	71
HS32/150L-ET	9.6	7.6	31.9	9.0	5950	17	φ16	φ28	G1"	76
HS38/150L-ET	10.7	8.5	38.3	10.8	5700	17	φ16	φ28	G1"	80
HS51/250L-ET	16.7	13.3	51.1	13.8	12400	21	φ22	φ42	G1"	132
HS64/250L-ET	19.1	15.2	63.8	17.3	11900	20	φ22	φ42	G1"	139
HS77/250L-ET	21.4	17.1	76.6	20.7	11400	20	φ22	φ42	G1"	146
HS77/350L-ET	25.3	20.2	76.6	20.5	18600	23	φ28	φ50	2*G1"	182
HS96/350L-ET	28.7	22.9	95.7	25.5	17850	22	φ28	φ50	2*G1"	195
HS115/350L-ET	32.2	25.7	114.9	30.6	17100	22	φ28	φ50	2*G1"	204
HS102/450L-ET	33.7	26.9	102.1	27.0	24800	25	φ28	φ50	3*G1"	236
HS128/450L-ET	38.3	30.6	127.7	33.8	23800	24	φ28	φ50	3*G1"	252
HS153/450L-ET	42.9	34.3	153.2	40.6	22800	24	φ28	φ50	3*G1"	265

1 备注: 1) 表中Tc为库温, ΔT为库温与蒸发温度之差。  
Remarks: 1) In the table, Tc is the cold room temp. and ΔT is the difference between the cold room and the evap. temp..

### 3.3 片距 9.0mm, Fin spacing 9.0mm

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc= 18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列										
HS5/130J-ES	1.6	1.2	5.2	2.1	1900	6	φ12	φ19	G1"	31
HS7/130J-ES	2.0	1.6	7.0	2.8	1700	5	φ12	φ19	G1"	33
HS11/230J-ES	3.2	2.5	10.5	4.1	3800	8	φ12	φ19	G1"	48
HS14/230J-ES	4.0	3.2	14.0	5.5	3400	7	φ12	φ22	G1"	51
HS16/330J-ES	4.7	3.7	15.7	5.8	5700	10	φ16	φ28	G1"	65
HS21/330J-ES	6.0	4.8	21.0	8.1	5100	10	φ16	φ28	G1"	69
HS21/430J-ES	6.4	5.1	21.0	7.7	7600	12	φ16	φ28	G1"	83
HS28/430J-ES	8.0	6.4	27.9	10.6	6800	12	φ16	φ28	G1"	88
350 风机系列										
HS5/135J-ES	1.7	1.3	5.2	2.1	2500	6	φ12	φ19	G1"	31
HS7/135J-ES	2.1	1.7	7.0	2.8	2200	6	φ12	φ19	G1"	33
HS11/235J-ES	3.4	2.7	10.5	4.1	5000	8	φ12	φ19	G1"	48
HS14/235J-ES	4.2	3.4	14.0	5.5	4400	7	φ12	φ22	G1"	51
HS16/335J-ES	5.0	4.0	15.7	5.8	7500	10	φ16	φ28	G1"	65
HS21/335J-ES	6.4	5.1	21.0	8.1	6600	10	φ16	φ28	G1"	69
HS21/435J-ES	6.8	5.4	21.0	7.7	10000	12	φ16	φ28	G1"	83
HS28/435J-ES	8.5	6.8	27.9	10.6	8800	12	φ16	φ28	G1"	88
400 风机系列										
HS12/140J-ET	3.3	2.6	12.1	4.8	3400	8	φ12	φ22	G1"	48
HS18/140J-ET	4.2	3.3	18.2	7.2	3100	7	φ12	φ22	G1"	53
HS18/240J-ET	5.0	4.0	18.2	7.2	7100	12	φ16	φ28	G1"	77
HS24/240J-ET	6.5	5.2	24.2	9.0	6800	12	φ16	φ28	G1"	80
HS36/240J-ET	8.3	6.6	36.3	13.5	6200	11	φ16	φ28	G1"	87
HS37/340J-ET	10.0	0.8	37.2	13.6	10200	14	φ22	φ42	2*G1"	121
HS56/340J-ET	12.8	10.2	55.9	20.4	9300	13	φ22	φ42	2*G1"	133
HS48/440J-ET	13.1	10.4	48.4	17.5	13600	16	φ22	φ42	2*G1"	156
HS61/440J-ET	14.8	11.8	60.5	21.9	13000	15	φ22	φ42	2*G1"	164
HS73/440J-ET	16.7	13.3	72.6	26.3	12400	15	φ22	φ42	2*G1"	171
HS61/540J-ET	16.3	13.0	60.5	21.7	17000	19	φ28	φ42	3*G1"	190
HS74/540J-ET	18.1	14.4	73.8	26.5	16200	18	φ28	φ50	3*G1"	202
HS91/540J-ET	20.9	16.7	90.8	32.6	15500	18	φ28	φ50	3*G1"	213



型号 Model	制冷量/R404A (kW) Capacity		面积 Surface	管容 Volume	风量 Airflow	射程 Airthrow	接口规格(mm) Connection pipe			重量
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K	m <sup>2</sup>	dm <sup>3</sup>	m <sup>3</sup> /h	m	进液 inlet	回气 outlet	排水 drain	kg
500 风机系列										
HS19/150J-ET	7.4	5.9	18.9	7.2	6400	18	φ16	φ28	G1"	71
HS24/150J-ET	8.7	6.9	23.6	9.0	6150	17	φ16	φ28	G1"	75
HS28/150J-ET	9.9	7.9	28.3	10.8	5900	17	φ16	φ28	G1"	80
HS38/250J-ET	14.7	11.7	37.7	13.8	12800	21	φ22	φ42	G1"	131
HS47/250J-ET	17.4	13.9	47.1	17.3	12300	20	φ22	φ42	G1"	138
HS57/250J-ET	19.8	15.8	56.6	20.7	11800	20	φ22	φ42	G1"	145
HS57/350J-ET	22.1	17.6	56.6	20.5	19200	23	φ28	φ50	2*G1"	181
HS71/350J-ET	26.1	20.8	70.7	25.5	18450	22	φ28	φ50	2*G1"	194
HS85/350J-ET	29.7	23.7	84.9	30.6	17700	22	φ28	φ50	2*G1"	203
HS75/450J-ET	29.4	23.5	75.4	27.0	25600	25	φ28	φ50	3*G1"	235
HS94/450J-ET	34.8	27.8	94.3	33.8	24600	24	φ28	φ50	3*G1"	250
HS113/450J-ET	39.5	31.6	113.1	40.6	23600	24	φ28	φ50	3*G1"	263

① 备注: 1) 表中Tc为库温, ΔT为库温与蒸发温度之差。  
Remarks: 1) In the table, Tc is the cold room temp. and ΔT is the difference between the cold room and the evap. temp..

4、电器参数表 / Electrical parameter table:

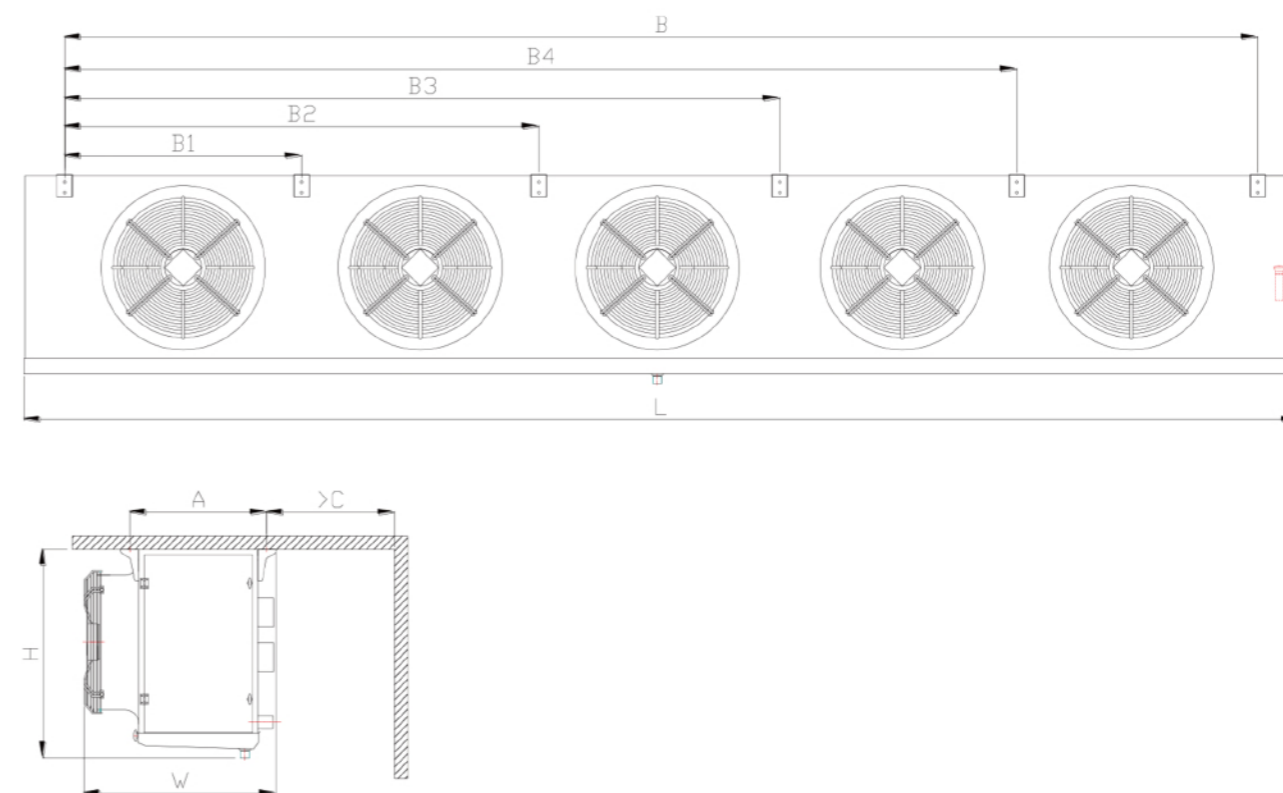
型号 Model	风扇电机 Fan Motor				电热除霜 Electric Defrost		
	电压 Voltage (V)	功率 Power (W)	电流 Current (A)	转速 Rev. (r/min)	盘管 Coil (kW)	水盘 Tray (kW)	总功率 Total (kW)
HS*/130**	220-1	93	0.44	1330	2×0.5	1×0.5	1.5
HS*/230**	220-1	186	0.88	1330	2×0.9	1×0.9	2.7
HS*/330**	220-1	279	1.32	1330	2×1.3	1×1.3	3.9
HS*/430**	220-1	372	1.76	1330	2×1.7	1×1.7	5.1
HS*/135**	380-3	195	0.46	1330	2×0.5	1×0.5	1.5
HS*/235**	380-3	390	0.92	1330	2×0.9	1×0.9	2.7
HS*/335**	380-3	585	1.38	1330	2×1.3	1×1.3	3.9
HS*/435**	380-3	780	1.84	1330	2×1.7	1×1.7	5.1
HS24/140M-ET HS16/140L-ET HS12/140J-ET	380-3	240	0.52	1330	3×0.65	1×0.7	2.0
HS36/140M-ET HS25/140L-ET HS18/140J-ET	380-3	240	0.52	1330	6×0.65	1×0.7	4.6
HS36/240M-ET HS25/240L-ET HS18/240J-ET	380-3	480	1.04	1330	3×1.17	1×1.22	4.7
HS48/240M-ET HS33/240L-ET HS24/240J-ET	380-3	480	1.04	1330	3×1.17	1×1.22	4.7
HS73/240M-ET HS49/240L-ET HS36/240J-ET	380-3	480	1.04	1330	6×1.17	1×1.22	8.2
HS74/340M-ET HS50/340L-ET HS37/340J-ET	380-3	720	1.56	1330	3×1.73	1×1.78	7.0
HS112/340M-ET HS76/340L-ET HS56/340J-ET	380-3	720	1.56	1330	6×1.73	1×1.78	12.2
HS97/440M-ET HS66/440L-ET HS48/440J-ET	380-3	960	2.08	1330	3×2.2	1×2.26	8.9
HS121/440M-ET HS82/440L-ET HS61/440J-ET	380-3	960	2.08	1330	5×2.2	1×2.26	13.3
HS145/440M-ET HS98/440L-ET HS73/440J-ET	380-3	960	2.08	1330	6×2.2	1×2.26	15.5
HS121/540M-ET HS82/540L-ET HS61/540J-ET	380-3	1200	2.6	1330	3×2.73	1×2.8	11.0
HS147/540M-ET HS100/540L-ET HS74/540J-ET	380-3	1200	2.6	1330	5×2.73	1×2.8	16.5



5. 外形图和尺寸表 Outline and installation dimension:

型号 Model	风扇电机 Fan Motor				电热除霜 Electric Defrost		
	电压 Voltage (V)	功率 Power (W)	电流 Current (A)	转速 Rev. (r/min)	盘管 Coil (kW)	水盘 Tray (kW)	总功率 Total (kW)
HS181/540M-ET HS123/540L-ET HS91/540J-ET	380-3	1200	2.6	1330	6×2.73	1×2.8	19.2
HS38/150M-ET HS26/150L-ET HS19/150J-ET	380-3	548	1.1	1380	3×0.85	2×0.9	4.4
HS47/150M-ET HS32/150L-ET HS24/150J-ET	380-3	548	1.1	1380	6×0.85	2×0.9	6.9
HS57/150M-ET HS38/150L-ET HS28/150J-ET	380-3	548	1.1	1380	6×0.85	2×0.9	6.9
HS75/250M-ET HS51/250L-ET HS38/250J-ET	380-3	1096	2.2	1380	3×1.57	2×1.62	8.0
HS94/250M-ET HS64/250L-ET HS47/250J-ET	380-3	1096	2.2	1380	6×1.57	2×1.62	12.7
HS113/250M-ET HS77/250L-ET HS57/250J-ET	380-3	1096	2.2	1380	6×1.57	2×1.62	12.7
HS113/350M-ET HS77/350L-ET HS57/350J-ET	380-3	1644	3.3	1380	3×2.3	2×2.34	11.6
HS141/350M-ET HS96/350L-ET HS71/350J-ET	380-3	1644	3.3	1380	6×2.3	2×2.34	18.5
HS169/350M-ET HS115/350L-ET HS85/350J-ET	380-3	1644	3.3	1380	6×2.3	2×2.34	18.5
HS151/450M-ET HS102/450L-ET HS75/450J-ET	380-3	2192	4.4	1380	3×3.0	2×3.1	15.2
HS188/450M-ET HS128/450L-ET HS94/450J-ET	380-3	2192	4.4	1380	6×3.0	2×3.1	24.2
HS226/450M-ET HS153/450L-ET HS113/450J-ET	380-3	2192	4.4	1380	6×3.0	2×3.1	24.2

型号 Model	外形尺寸 Outline (mm)			安装尺寸 Install (mm)							
	L	W	H	A	B	B1	B2	B3	B4	C	安装孔
HS*/130**	900	515	590	380	530	/	/	/	/	300	4-φ 13
HS*/135**	900	515	590	380	530	/	/	/	/	300	4-φ 13
HS*/230**	1400	515	590	380	1030	/	/	/	/	300	4-φ 13
HS*/235**	1400	515	590	380	1030	/	/	/	/	300	4-φ 13
HS*/330**	1900	515	590	380	1530	/	/	/	/	300	4-φ 13
HS*/335**	1900	515	590	380	1530	/	/	/	/	300	4-φ 13
HS*/430**	2400	515	590	380	2030	/	1000	/	/	300	6-φ 13
HS*/435**	2400	515	590	380	2030	/	1000	/	/	300	6-φ 13
HS*/140**	1050	540	730	430	680	/	/	/	/	400	4-φ 13
HS*/240**	1700	540	730	430	1330	/	/	/	/	400	4-φ 13
HS*/340**	2400	540	730	430	2030	/	/	/	/	400	4-φ 13
HS*/440**	3000	540	730	430	2630	/	1300	/	/	400	6-φ 13
HS*/540**	3650	540	730	430	3280	/	1300	1950	/	400	8-φ 13
HS*/150**	1300	700	830	530	930	/	/	/	/	500	4-φ 13
HS*/250**	2200	700	830	530	1830	900	/	/	/	500	6-φ 13
HS*/350**	3100	700	830	530	2730	900	1800	/	/	500	8-φ 13
HS*/450**	4000	700	830	530	3630	900	1800	2700	/	500	10-φ 13







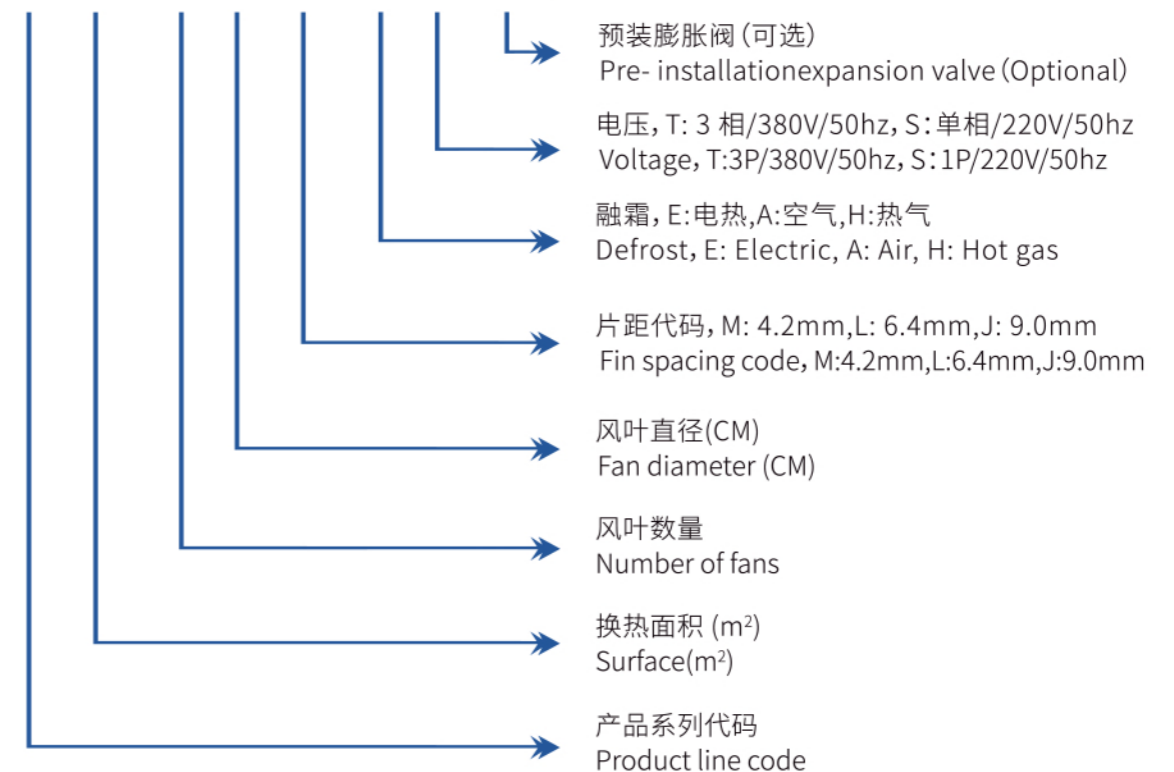
## CS 系列吊顶式冷风机 / CS Series Ceiling Industrial evaporator for cold rooms

### 1、产品概述 / Product description:

- 1 外壳:**  
 采用优质钢板表面喷塑,防腐性能强;  
 两侧板及外水盘板采用铰链式结构,操作方便快捷;  
 Casing: Adopt high-quality steel plate with powder coating RAL9003  
 Hinged structure is adopted for both side plates and external drip tray, which is convenient and quick to operate.
- 2 盘管:** 采用φ15铜管、管间距50×50;  
 波纹式铝片,片距有4.2mm、6.4mm及9.0mm;  
 Heat Exchanger Coil: Copper tubing φ15, spacing 50×50 Corrugated aluminium fins, fin spacing 4.2mm and 6.4mm and 9.0mm.
- 3 可满足R404A、R507A、R448A、R449A、R134a、R22等制冷剂使用。**  
 It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.
- 4 除霜:**  
 标准采用电热除霜,不锈钢加热管均布于盘管翅片中及内水盘板上,独立的加热管接线盒。  
 也可以采用热气除霜或盘管热气、水盘电热的除霜方式。  
 Defrosting: Standard use of electric defrosting, stainless heating pipes installed in the middle of coil and inner water plate. Independent electric heating tube junction box. Hot gas defrosting or coil hot gas defrosting can also be used.
- 5 风机:**  
 外转子风机,大功率、高风压设计;  
 使用温度-40°C~60°C;  
 整体拉伸高风筒设计,导风效果好、射程远、噪音低;  
 独立的接线盒;  
 风机规格φ300、φ400、φ500、φ630  
 Fans: External rotor motor with high wind pressure, working temperature -40~60°C; High air duct design with Integral stretching, good ventilation effect, further airtrow, lower noise; Fans individually connected to junction box; Fan blade φ300, φ400, φ500, φ630, standard 4-pole motor

### 2、产品型号说明 / Model Explanation:

#### CS 83 / 3 40 M - E T - V



## CS 系列吊顶式冷风机 Celling Industrial evaporator for cold rooms





### 3、性能数据表 / Performance data sheet:

#### 3.1 片距 4.2mm

#### 3.1 Fin spacing 4.2mm

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容积 volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Air throw m	接口规格(mm) Connection pipe			重量 Weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列 Fan 300										
CS10/130M-ES	1.7	1.3	10.4	1.8	1800	6	φ12	φ19	G1"	31
CS15/130M-ES	2.1	1.6	15.0	2.6	1700	5	φ12	φ19	G1"	34
CS21/230M-ES	3.4	2.7	20.7	3.2	3600	8	φ12	φ19	G1"	49
CS28/230M-ES	3.9	3.1	27.6	4.3	3400	7	φ12	φ22	G1"	52
CS31/330M-ES	5.0	4.0	31.1	4.6	5100	10	φ12	φ22	G1"	66
CS42/330M-ES	5.8	4.6	41.5	6.2	4500	10	φ16	φ28	G1"	71
CS42/430M-ES	6.6	5.2	41.5	6.1	6800	12	φ12	φ22	G1"	83
CS55/430M-ES	7.7	6.1	55.3	8.1	6000	12	φ16	φ28	G1"	90
400 风机系列 Fan 400										
CS27/140M-ET	4.6	3.7	27.0	4.4	3000	8	φ12	φ22	G1"	48
CS36/140M-ET	5.4	4.3	35.9	5.9	2700	7	φ12	φ22	G1"	53
CS36/240M-ET	6.5	5.4	35.9	5.9	6400	13	φ12	φ22	G1	74
CS54/240M-ET	9.2	7.4	53.9	8.2	6000	12	φ16	φ28	G1	81
CS72/240M-ET	10.8	8.6	71.9	10.9	5400	11	φ16	φ28	G1	88
CS83/340M-ET	14.1	11.3	82.9	12.3	9000	15	φ22	φ42	2*G1"	123
CS110/340M-ET	16.6	13.3	110.6	16.4	8100	13	φ22	φ42	2*G1"	134
CS108/440M-ET	18.3	14.6	107.8	15.8	12000	16	φ22	φ42	2*G1"	158
CS144/440M-ET	21.6	17.3	143.8	21.1	10800	15	φ22	φ42	2*G1"	172
CS180/540M-ET	27.0	21.6	179.7	26.2	13500	18	φ28	φ50	3*G1"	215

1) 表中Tc为库温, ΔT为库温与蒸发温度之差。

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容积 volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Air throw m	接口规格(mm) Connection pipe			重量 Weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
500 风机系列 Fan 500										
CS58/150M-ET	9.86	7.89	58.0	9.3	6000	18	φ16	φ28	G1"	78
CS73/150M-ET	11.2	8.95	72.6	11.3	5750	17	φ16	φ28	G1"	84
CS87/150M-ET	12.5	10.0	87.1	13.3	5500	17	φ16	φ28	G1"	90
CS116/250M-ET	19.72	15.8	116.1	17.4	12000	21	φ22	φ42	G1"	145
CS145/250M-ET	22.4	17.9	145.2	21.4	11500	20	φ22	φ42	G1"	156
CS174/250M-ET	25.0	20.0	174.2	25.5	11000	20	φ22	φ42	G1"	167
CS174/350M-ET	29.6	23.68	174.2	25.5	18000	23	φ28	φ50	2*G1"	202
CS218/350M-ET	33.6	26.8	217.7	31.6	17300	22	φ28	φ50	2*G1"	220
CS261/350M-ET	37.5	30.0	261.3	37.6	16500	22	φ28	φ50	2*G1"	236
CS232/450M-ET	39.4	31.52	232.2	33.5	24000	25	φ28	φ50	3*G1"	263
CS290/450M-ET	44.5	35.6	290.3	41.6	23000	24	φ28	φ50	3*G1"	285
CS348/450M-ET	49.6	39.68	348.4	49.7	22000	24	φ28	φ50	3*G1"	307
630 风机系列 Fan 630										
CS100/163M-ET	15.9	12.7	99.5	15.0	10200	28	φ22	φ28	G1"	123
CS125/163M-ET	18.1	14.5	124.4	18.8	9900	27	φ22	φ35	G1"	134
CS150/163M-ET	20.2	16.1	149.3	22.5	9600	27	φ22	φ35	G1"	145
CS199/263M-ET	31.8	25.4	199.0	28.9	20400	32	φ22	φ42	2*G1"	213
CS249/263M-ET	36.1	28.9	248.8	36.1	19800	31	φ22	φ42	2*G1"	233
CS299/263M-ET	40.4	32.3	298.5	43.3	19200	31	φ22	φ42	2*G1"	253
CS299/363M-ET	47.7	38.2	298.5	42.8	30600	35	φ28	φ50	3*G1"	303
CS373/363M-ET	54.2	43.4	373.2	53.5	29700	34	φ28	φ50	3*G1"	333
CS448/363M-ET	60.6	48.5	447.8	64.1	28800	34	φ28	φ50	3*G1"	362

1) Remarks:

1. In the table, Tc is the coldroom temp. and ΔT is the difference between the coldroom and the evap.temp.



### 3、性能数据表 / Performance data sheet:

3.2 片距6.4mm  
3.2Fin spacing 6.4mm

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Air throw m	接口规格(mm) Connection pipe			重量 Weight kg
	Tc= 0°C ΔT=8K	Tc= -18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列										
CS7/130L-ES	1.5	1.2	7.0	1.8	1800	6	φ12	φ19	G1"	30
CS10/130L-ES	1.8	1.4	10.0	2.6	1600	5	φ12	φ19	G1"	33
CS14/230L-ES	2.9	2.3	13.9	3.2	3600	8	φ12	φ19	G1"	47
CS19/230L-ES	3.3	2.6	18.5	4.3	3200	7	φ12	φ22	G1"	50
CS21/330L-ES	4.4	3.5	20.8	4.6	5400	10	φ16	φ28	G1"	63
CS28/330L-ES	5.0	4.0	27.8	6.2	4800	10	φ16	φ28	G1"	67
CS28/430L-ES	5.8	4.6	27.8	6.1	7200	12	φ16	φ28	G1"	80
CS37/430L-ES	6.7	5.3	37.1	8.1	6400	12	φ16	φ28	G1"	85
400 风机系列										
CS18/140L-ET	3.2	2.6	18.0	4.4	3200	8	φ12	φ22	G1"	46
CS24/140L-ET	4.1	3.3	24.1	5.9	2900	7	φ12	φ22	G1"	50
CS24/240L-ET	4.6	3.8	24.1	5.9	6600	13	φ12	φ22	G1"	71
CS36/240L-ET	6.4	5.1	36.1	8.2	6400	12	φ16	φ28	G1"	76
CS48/240L-ET	8.2	6.6	48.2	10.9	5800	11	φ16	φ28	2*G1"	82
CS56/340L-ET	9.7	7.8	55.6	12.3	9600	14	φ22	φ42	2*G1"	116
CS74/340L-ET	12.5	10.0	74.1	16.4	8700	13	φ22	φ42	2*G1"	124
CS72/440L-ET	12.8	10.2	72.3	15.8	12800	16	φ22	φ42	2*G1"	149
CS96/440L-ET	16.4	13.1	96.3	21.1	11600	15	φ22	φ42	2*G1"	160
CS120/540L-ET	20.5	16.4	120.4	26.2	14500	18	φ28	φ50	3*G1"	200

1 备注:  
1) 表中Tc为库温, ΔT为库温与蒸发温度之差。

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Air throw m	接口规格(mm) Connection pipe			重量 Weight kg
	Tc= 0°C ΔT=8K	Tc= -18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
500 风机系列										
CS39/150L-ET	8.26	6.61	38.9	9.3	6200	18	φ16	φ28	G1"	73
CS49/150L-ET	9.61	7.68	48.6	11.3	5950	17	φ16	φ28	G1"	78
CS58/150L-ET	10.95	8.76	58.4	13.3	5700	17	φ16	φ28	G1"	83
CS78/250L-ET	16.5	13.22	77.8	17.4	12400	21	φ22	φ42	G1"	135
CS97/250L-ET	19.2	15.37	97.3	21.5	11900	20	φ22	φ42	G1"	144
CS117/250L-ET	21.9	17.52	116.7	25.5	11400	20	φ22	φ42	G1"	152
CS117/350L-ET	24.8	19.83	116.7	25.5	18600	23	φ28	φ54	2*G1"	187
CS146/350L-ET	28.9	23.1	145.9	31.6	17850	22	φ28	φ50	2*G1"	200
CS175/350L-ET	32.85	26.28	175.1	37.6	17100	22	φ28	φ50	2*G1"	214
CS156/450L-ET	33.0	26.44	155.6	33.5	24800	25	φ28	φ50	3*G1"	243
CS195/450L-ET	38.4	30.7	194.5	41.6	23800	24	φ28	φ50	3*G1"	260
CS234/450L-ET	43.75	35.0	233.5	49.7	22800	24	φ28	φ50	3*G1"	277
630 风机系列										
CS67/163L-ET	13.4	10.7	66.7	15.0	10600	28	φ22	φ28	G1"	114
CS83/163L-ET	15.5	12.4	83.4	18.8	10300	27	φ22	φ35	G1"	123
CS100/163L-ET	17.5	14.0	100.1	22.5	10000	27	φ22	φ35	G1"	132
CS133/263L-ET	26.7	21.4	133.4	28.9	21200	32	φ22	φ42	2*G1"	196
CS167/263L-ET	30.9	24.7	166.8	36.1	20600	31	φ22	φ42	2*G1"	212
CS200/263L-ET	35.0	28.0	200.2	43.3	20000	31	φ22	φ42	2*G1"	227
CS200/363L-ET	40.0	32.0	200.1	42.8	31800	35	φ28	φ50	3*G1"	278
CS250/363L-ET	46.3	37.0	250.1	53.5	30900	34	φ28	φ50	3*G1"	300
CS300/363L-ET	52.5	42.0	300.2	64.1	30000	34	φ28	φ50	3*G1"	323

1 Remarks:  
1. In the table, Tc is the coldroom temp. and ΔT is the difference between the coldroom and the evap.temp.



3.3 片距9.0mm  
3.3 Fin spacing 9.0mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列										
CS5/130J-ES	1.2	0.9	5.1	1.8	1900	6	φ12	φ19	G1"	30
CS7/130J-ES	1.6	1.3	7.3	2.6	1700	5	φ12	φ19	G1"	33
CS10/230J-ES	2.4	1.9	10.1	3.2	3800	8	φ12	φ19	G1"	47
CS14/230J-ES	3.0	2.4	13.5	4.3	3400	7	φ12	φ22	G1"	50
CS15/330J-ES	3.6	2.8	15.2	4.6	5700	10	φ16	φ28	G1"	62
CS20/330J-ES	4.5	3.6	20.3	6.2	5100	10	φ16	φ28	G1"	66
CS20/430J-ES	4.9	3.9	20.3	6.1	7600	12	φ16	φ28	G1"	79
CS27/430J-ES	5.9	4.7	27.0	8.1	6800	12	φ16	φ28	G1"	84
400 风机系列										
CS13/140J-ET	2.5	2.0	13.2	4.4	3400	8	φ12	φ22	G1"	46
CS18/140J-ET	3.2	2.6	17.6	5.9	3100	7	φ12	φ22	G1"	50
CS18/240J-ET	3.7	3.0	17.6	5.9	7000	13	φ12	φ22	G1"	71
CS26/240J-ET	5.0	4.0	26.3	8.2	6800	12	φ16	φ28	G1"	76
CS35/240J-ET	6.4	5.1	35.1	10.9	6200	11	φ16	φ28	G1"	82
CS41/340J-ET	7.6	6.1	40.5	12.3	10200	14	φ22	φ42	2*G1"	116
CS54/340J-ET	9.7	7.8	54.0	16.4	9300	13	φ22	φ42	2*G1"	124
CS53/440J-ET	10.0	8.0	52.7	15.8	13600	16	φ22	φ42	2*G1"	149
CS70/440J-ET	12.8	10.2	70.3	21.1	12400	15	φ22	φ42	2*G1"	160
CS88/540J-ET	16.0	12.8	87.8	26.2	15500	18	φ28	φ54	3*G1"	200

1 备注：  
1) 表中Tc为库温，ΔT为库温与蒸发温度之差。

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
500 风机系列										
CS28/150J-ET	7.08	5.66	28.3	9.3	6400	18	φ16	φ28	G1"	73
CS36/150J-ET	8.6	6.88	35.5	11.3	6150	17	φ16	φ28	G1"	78
CS43/150J-ET	10.1	8.08	42.5	13.3	5900	17	φ16	φ28	G1"	83
CS57/250J-ET	14.15	11.32	56.6	17.4	12800	21	φ22	φ42	G1"	135
CS71/250J-ET	17.2	13.74	70.9	21.5	12300	20	φ22	φ42	G1"	144
CS85/250J-ET	20.2	16.16	85.0	25.5	11800	20	φ22	φ42	G1"	152
CS85/350J-ET	21.22	16.98	85.0	25.5	19200	23	φ28	φ50	2*G1"	187
CS107/350J-ET	25.8	20.6	106.4	31.6	18450	22	φ28	φ50	2*G1"	200
CS128/350J-ET	30.3	24.24	127.5	37.6	17700	22	φ28	φ50	2*G1"	214
CS114/450J-ET	28.3	22.64	113.3	33.5	25600	25	φ28	φ50	3*G1"	243
CS142/450J-ET	34.4	27.45	141.9	41.6	24600	24	φ28	φ50	3*G1"	260
CS170/450J-ET	40.4	32.32	170.0	49.7	23600	24	φ28	φ50	3*G1"	277
630 风机系列										
CS49/163J-ET	11.6	9.3	48.6	15.0	11000	28	φ22	φ28	G1"	114
CS61/163J-ET	13.7	11.0	60.8	18.8	10700	27	φ22	φ35	G1"	123
CS73/163J-ET	15.7	12.6	72.8	22.5	10400	27	φ22	φ35	G1"	132
CS97/263J-ET	23.1	18.5	97.1	28.9	22000	32	φ22	φ42	2*G1"	196
CS122/263J-ET	27.3	21.8	121.6	36.1	21400	31	φ22	φ42	2*G1"	211
CS146/263J-ET	31.4	25.1	145.7	43.3	20800	31	φ22	φ42	2*G1"	227
CS146/363J-ET	34.7	27.8	145.7	42.8	33000	35	φ28	φ50	3*G1"	278
CS182/363J-ET	40.9	32.7	182.4	53.5	32100	34	φ28	φ50	3*G1"	300
CS219/363J-ET	47.1	37.7	218.5	64.1	31200	34	φ28	φ50	3*G1"	323

1 Remarks:  
1. In the table, Tc is the cold room temp. andΔT is the difference between the cold room and the evap. temp..



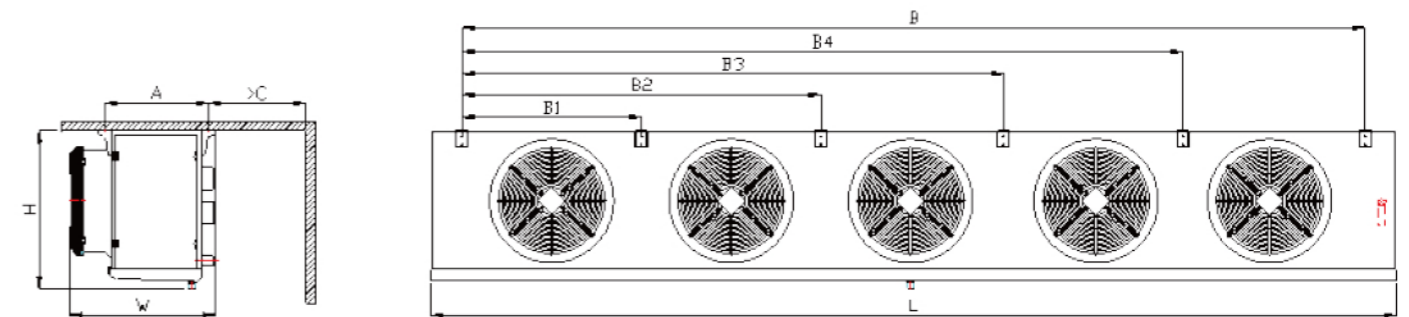
4、电器参数表 / Electrical parameter table:

型号 Model	风扇电机 Fan Motor				电热除霜 Electric Defrost		
	电压 Voltage (V)	功率 Power (W)	电流 Current (A)	转速 Rev. (r/min)	盘管 Coil (KW)	水盘 Tray (KW)	总功率 Total (KW)
CS*/130**	220-1	93	0.44	1330	2×0.5	1×0.5	1.5
CS*/230**	220-1	186	0.88	1330	2×0.9	1×0.9	2.7
CS*/330**	220-1	279	1.32	1330	2×1.3	1×1.3	3.9
CS*/430**	220-1	372	1.76	1330	2×1.7	1×1.7	5.1
CS27/140M-ET CS18/140L-ET CS13/140J-ET	380-3	240	0.52	1330	2×0.65	1×0.7	2.0
CS36/140M-ET CS24/140L-ET CS18/140J-ET	380-3	240	0.52	1330	4×0.65	1×0.7	3.3
CS36/240M-ET CS24/240L-ET CS18/240J-ET	380-3	480	1.04	1330	2×1.17	1×1.22	3.56
CS54/240M-ET CS36/240L-ET CS26/240J-ET	380-3	480	1.04	1330	2×1.17	1×1.22	3.56
CS72/240M-ET CS48/240L-ET CS35/240J-ET	380-3	480	1.04	1330	4×1.17	1×1.22	5.9
CS83/340M-ET CS56/340L-ET CS41/340J-ET	380-3	720	1.56	1330	2×1.73	1×1.78	5.2
CS110/340M-ET CS74/340L-ET CS54/340J-ET	380-3	720	1.56	1330	4×1.73	1×1.78	8.7
CS108/440M-ET CS72/440L-ET CS53/440J-ET	380-3	960	2.08	1330	2×2.2	1×2.26	6.7
CS144/440M-ET CS96/440L-ET CS70/440J-ET	380-3	960	2.08	1330	4×2.2	1×2.26	11.1
CS180/540M-ET CS120/540L-ET CS89/540J-ET	380-3	1200	2.6	1330	4×2.73	1×2.8	13.7
CS58/150M-ET CS39/150L-ET CS28/150J-ET	380-3	548	1.1	1380	4×0.85	2×0.9	5.2
CS73/150M-ET CS49/150L-ET CS36/150J-ET	380-3	548	1.1	1380	6×0.85	2×0.9	6.9
CS87/150M-ET CS58/150L-ET CS43/150J-ET	380-3	548	1.1	1380	6×0.85	2×0.9	6.9
CS116/250M-ET CS78/250L-ET CS57/250J-ET	380-3	1096	2.2	1380	4×1.57	2×1.62	9.5
CS145/250M-ET CS97/250L-ET CS71/250J-ET	380-3	1096	2.2	1380	6×1.57	2×1.62	12.7
CS174/250M-ET CS117/250L-ET CS85/250J-ET	380-3	1096	2.2	1380	6×1.57	2×1.62	12.7
CS174/350M-ET CS117/350L-ET CS85/350J-ET	380-3	1644	3.3	1380	4×2.3	2×2.34	13.9
CS218/350M-ET CS146/350L-ET CS107/350J-ET	380-3	1644	3.3	1380	6×2.3	2×2.34	18.5
CS261/350M-ET CS175/350L-ET CS128/350J-ET	380-3	1644	3.3	1380	6×2.3	2×2.34	18.5
CS232/450M-ET CS156/450L-ET CS114/450J-ET	380-3	2192	4.4	1380	4×3.0	2×3.1	18.2
CS290/450M-ET CS195/450L-ET CS142/450J-ET	380-3	2192	4.4	1380	6×3.0	2×3.1	24.2
CS348/450M-ET CS234/450L-ET CS170/450J-ET	380-3	2192	4.4	1380	6×3.0	2×3.1	24.2

型号 Model	风扇电机 Fan Motor				电热除霜 Electric Defrost		
	电压 Voltage V	功率 Power W	电流 Current A	转速 Rev. r/min	盘管 Coil KW	水盘 Tray KW	总功率 Total KW
CS100/163M-ET CS67/163L-ET CS49/163J-ET	380-3	937	1.75	1378	6×1.16	2×1.28	9.52
CS125/163M-ET CS83/163L-ET CS61/163J-ET	380-3	937	1.75	1378	9×1.16	2×1.28	13.0
CS150/163M-ET CS100/163L-ET CS73/163J-ET	380-3	937	1.75	1378	9×1.16	2×1.28	13.0
CS199/263M-ET CS133/263L-ET CS97/263J-ET	380-3	1874	3.5	1378	6×2.12	2×2.24	17.2
CS249/263M-ET CS167/263L-ET CS122/263J-ET	380-3	1874	3.5	1378	9×2.12	2×2.24	23.6
CS299/263M-ET CS200/263L-ET CS146/263J-ET	380-3	1874	3.5	1378	9×2.12	2×2.24	23.6
CS299/363M-ET CS200/363L-ET CS146/363J-ET	380-3	2811	5.25	1378	6×3.1	2×3.2	25.0
CS373/363M-ET CS250/363L-ET CS182/363J-ET	380-3	2811	5.25	1378	9×3.1	2×3.2	34.3
CS448/363M-ET CS300/363L-ET CS219/363J-ET	380-3	2811	5.25	1378	9×3.1	2×3.2	34.3

5、外形图和尺寸表 / Outline and installation dimension:

型号 Model	外形尺寸 Outline (mm)			安装尺寸 Install (mm)							
	L	W	H	A	B	B1	B2	B3	B4	C	安装孔
CS*/130**	900	515	590	380	530	/	/	/	/	300	4-φ 13
CS*/230**	1400	515	590	380	1030	/	/	/	/	300	4-φ 13
CS*/330**	1900	515	590	380	1530	/	/	/	/	300	4-φ 13
CS*/430**	2400	515	590	380	2030	/	1000	/	/	300	6-φ 13
CS*/140**	1050	540	730	430	680	/	/	/	/	400	4-φ 13
CS*/240**	1700	540	730	430	1330	/	/	/	/	400	4-φ 13
CS*/340**	2400	540	730	430	2030	/	/	/	/	400	4-φ 13
CS*/440**	3000	540	730	430	2630	/	1300	/	/	400	6-φ 13
CS*/540**	3650	540	730	430	3280	/	1300	1950	/	400	8-φ 13
CS*/150**	1300	700	830	530	930	/	/	/	/	500	4-φ 13
CS*/250**	2200	700	830	530	1830	900	/	/	/	500	6-φ 13
CS*/350**	3100	700	830	530	2730	900	1800	/	/	500	8-φ 13
CS*/450**	4000	700	830	530	3630	900	1800	2700	/	500	10-φ 13
CS*/163**	1650	810	1030	620	1230	/	/	/	/	600	4-φ 13
CS*/263**	2850	810	1030	620	2430	1200	/	/	/	600	6-φ 13
CS*/363**	4050	810	1030	620	3630	1200	2400	/	/	600	8-φ 13







**ND**

系列吊顶式冷风机

series industrial evaporator for coldrooms



**ND 系列吊顶式冷风机**

series industrial evaporator for cold rooms

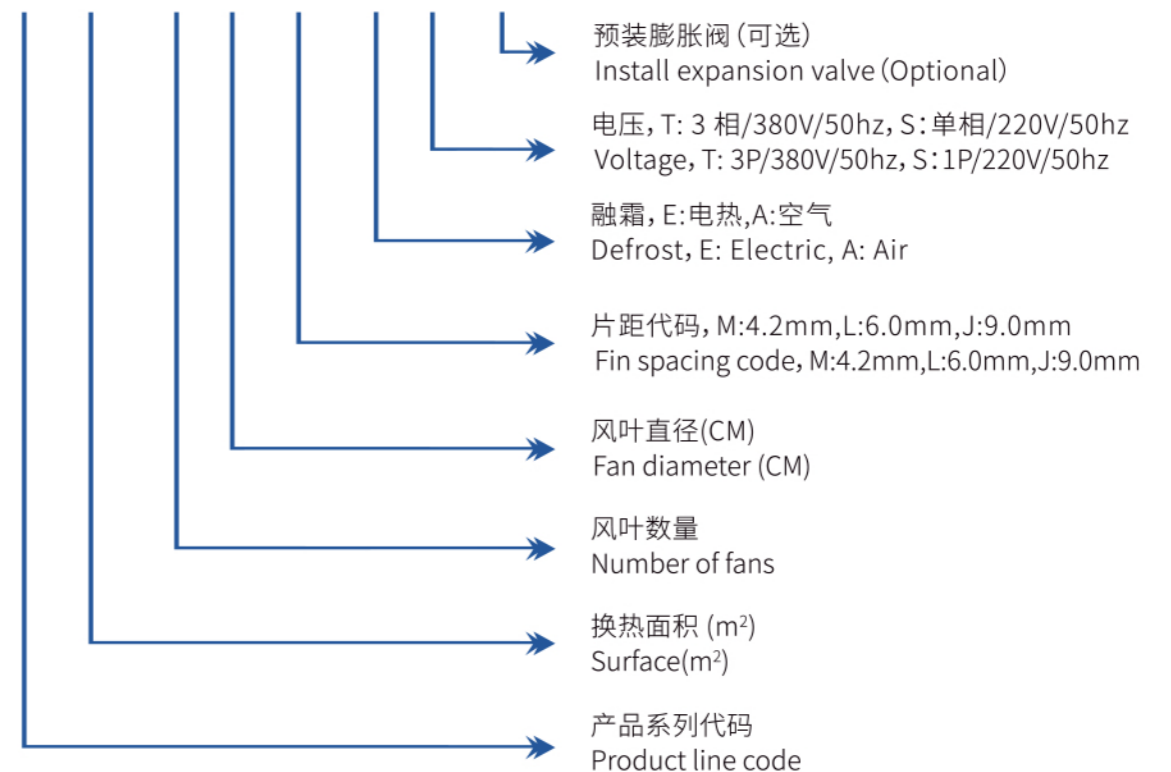
1、产品概述 / Product description:

- 1 外壳：采用优质镀锌钢板表面喷塑，防腐性能强；两侧板及外水盘板采用铰链式结构，操作方便快捷；  
Casing: Adopt high-quality steel plate with powder coating RAL9003  
Hinged structure is adopted for both side plates and external drip tray, which is convenient and quick to operate
- 2 盘管：采用φ15铜管、管间距50×50；波纹式铝片，片距有4.2mm、6.0mm及9.0mm；  
Copper tubingφ15,spacing 50×50  
Corrugated aluminium fins,fin spacing 4.2mm and 6.4mm and 9.0mm
- 3 可满足R404A、R507A、R448A、R449A、R134a、R22等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.

- 4 除霜：标准采用电热除霜，不锈钢加热管均布于盘管翅片中及内水盘板上，独立的加热管接线盒。  
Defrosting:  
Standard use of electric defrosting, stainless heating pipes installed in the middle of coil and inner water plate. Independent electric heating tube junction box.
- 5 风机：外转子风机，大功率、高风压设计；使用温度-40℃~60℃；独立的接线盒；  
风机规格φ300、φ350、φ400、φ500、φ630  
Fans:  
External rotor motor with high wind pressure, working temperature -40~60℃  
Fans individually connected to junction box  
Fan blade φ300, φ350, φ400, φ500, φ630, standard 4-pole motor

2、产品型号说明 / Model Explanation:

**ND 42 / 2 40 M - E T - V**





### 3、性能数据表 / Performance data sheet:

#### 3.1 片距 4.2mm 3.1 Fin spacing 4.2mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格 (mm) Connection pipe			重量 Weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 Drain	
ND10/130M-ES	1.5	1.2	9.2	1.6	1700	5	φ12	φ19	G1"	29
ND14/135M-ET	2.4	1.9	13.8	2.4	2300	6	φ12	φ19	G1"	32
ND20/230M-ES	3.0	2.4	18.4	2.9	3400	7	φ12	φ19	G1"	44
ND30/235M-ET	4.8	3.8	27.6	4.3	4600	8	φ12	φ19	G1"	50
ND28/240M-ES	7.6	6.0	27.9	5.5	5800	7	φ12	φ22	G1"	53
ND42/240M-ET	6.6	5.2	41.5	6.3	6200	10	φ12	φ22	G1"	71
ND55/240M-ET	8.3	6.6	55.3	8.4	5800	10	φ16	φ28	G1"	78
ND70/240M-ET	10.0	7.9	69.1	10.5	5200	9	φ16	φ28	G1"	84
ND83/250M-ET	14.9	11.8	82.9	12.4	11600	16	φ22	φ35	G1"	118
ND105/250M-ET	17.5	13.8	103.7	15.5	11000	15	φ22	φ35	G1"	128
ND138/350M-ET	24.8	19.6	138.2	20.4	17100	18	φ22	φ42	2*G1"	168
ND166/350M-ET	28.2	22.3	165.9	24.5	16200	18	φ22	φ42	2*G1"	180
ND180/450M-ET	32.3	25.5	179.7	26.0	23200	22	φ28	φ50	3*G1"	235
ND225/450M-ET	36.0	28.4	224.6	32.5	22000	22	φ28	φ50	3*G1"	251
ND270/450M-ET	41.8	33.0	269.6	39.0	20800	21	φ28	φ50	3*G1"	270
ND300/455M-ET	49.5	39.1	299.5	43.4	28000	25	φ28	φ50	3*G1"	313
ND360/455M-ET	53.8	42.5	359.4	52.0	26000	24	φ28	φ50	3*G1"	339
ND373/463M-ET	61.5	48.6	373.2	53.9	36800	30	φ28	φ50	3*G1"	383
ND448/463M-ET	65.0	51.4	447.9	64.7	36000	29	φ28	φ50	3*G1"	415

1 备注：表中Tc为库温，ΔT为库温与蒸发温度之差。  
Remarks: Tc is the cold room temp. and ΔT is the difference between the cold room and the evap temp.

#### 3.2 片距 6.0mm 3.2 Fin spacing 6.0mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 airthrow m	接口规格 (mm) Connection pipe			重量 Weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 inlet	回气 outlet	排水 drain	
ND7/130L-ES	1.3	1.0	6.6	1.6	1800	5	φ12	φ19	G1"	28
ND10/135L-ET	2.1	1.7	9.8	2.4	2100	6	φ12	φ19	G1"	31
ND13/230L-ES	2.6	2.1	13.1	2.9	3600	7	φ12	φ19	G1"	42
ND20/235L-ET	4.2	3.3	19.7	4.3	4200	8	φ12	φ19	G1"	47
ND19/240L-ES	6.6	5.2	18.9	5.5	6000	10	φ12	φ22	G1"	51
ND30/240L-ET	5.3	4.2	29.5	6.3	6400	10	φ12	φ22	G1"	67
ND40/240L-ET	6.6	5.2	39.4	8.4	6000	10	φ16	φ28	G1"	73
ND50/240L-ET	7.8	6.2	49.2	10.5	5400	9	φ16	φ28	G1"	78
ND60/250L-ET	13.0	10.3	59.0	12.4	12000	16	φ22	φ35	G1"	110

ND74/250L-ET	15.9	12.6	73.8	15.5	11400	15	φ22	φ35	G1"	118
ND100/350L-ET	21.6	17.1	98.4	20.4	17700	18	φ22	φ42	2*G1"	155
ND120/350L-ET	24.7	19.5	118.1	24.5	16800	18	φ22	φ42	2*G1"	165
ND130/450L-ET	28.2	22.3	127.9	26.0	24000	22	φ28	φ50	3*G1"	217
ND160/450L-ET	32.8	25.9	159.9	32.5	22800	22	φ28	φ50	3*G1"	230
ND192/450L-ET	36.5	28.8	191.9	39.0	21600	21	φ28	φ50	3*G1"	245
ND213/455L-ET	42.6	33.7	213.2	43.4	30000	25	φ28	φ50	3*G1"	285
ND256/455L-ET	46.1	36.4	255.8	52.0	28000	24	φ28	φ50	3*G1"	306
ND266/463L-ET	51.9	41.0	265.7	53.9	38800	30	φ28	φ50	3*G1"	348
ND320/463L-ET	57.4	45.3	318.8	64.7	36800	29	φ28	φ50	3*G1"	374

1 备注：表中Tc为库温，ΔT为库温与蒸发温度之差。  
Remarks: Tc is the cold room temp. and ΔT is the difference between the cold room and the evap temp.

#### 3.3 片距 9.0mm 3.3 Fin spacing 9.0mm

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	接口规格 (mm) Connection pipe			重量 Weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					进液 Inlet	回气 outlet	排水 drain	
ND5/130J-ES	1.1	0.9	4.5	1.6	1900	5	φ12	φ19	G1	28
ND7/135J-ET	1.8	1.4	6.8	2.4	2200	6	φ12	φ19	G1	31
ND9/230J-ES	2.2	1.7	9.0	2.9	3800	7	φ12	φ19	G1	42
ND14/235J-ET	3.5	2.8	13.5	4.3	4400	8	φ12	φ19	G1	47
ND14/240J-ES	4.5	3.6	14.0	5.5	6200	7	φ12	φ22	G1"	51
ND20/240J-ET	5.3	4.2	20.3	6.3	6800	10	φ12	φ22	G1	67
ND27/240J-ET	6.7	5.3	27.0	8.4	6200	10	φ16	φ28	G1	73
ND34/240J-ET	8.1	6.4	33.8	10.5	5600	9	φ16	φ28	G1	78
ND41/250J-ET	10.5	8.3	40.5	12.4	12400	16	φ22	φ35	G1	109
ND51/250J-ET	12.7	10.0	50.7	15.5	11800	15	φ22	φ35	G1	117
ND68/350J-ET	16.9	13.4	67.6	20.4	18300	18	φ22	φ42	2*G1	154
ND81/350J-ET	20.7	16.4	81.1	24.5	17400	18	φ22	φ42	2*G1	164
ND90/450J-ET	23.3	18.4	87.8	26.0	24800	22	φ28	φ50	3*G1	213
ND110/450J-ET	26.4	20.9	109.8	32.5	23600	22	φ28	φ50	3*G1	228
ND132/450J-ET	29.7	23.5	131.7	39.0	22400	21	φ28	φ50	3*G1	243
ND146/455J-ET	33.6	26.5	146.4	43.4	31000	25	φ28	φ50	3*G1	283
ND176/455J-ET	38.3	30.3	175.7	52.0	28800	24	φ28	φ50	3*G1	304
ND182/463J-ET	41.8	33.0	182.4	53.9	40800	30	φ28	φ50	3*G1	346
ND220/463J-ET	47.1	37.2	218.9	64.7	38400	29	φ28	φ50	3*G1	371

1 备注：表中Tc为库温，ΔT为库温与蒸发温度之差。  
Remarks: Tc is the cold room temp. and ΔT is the difference between the cold room and the evap temp.

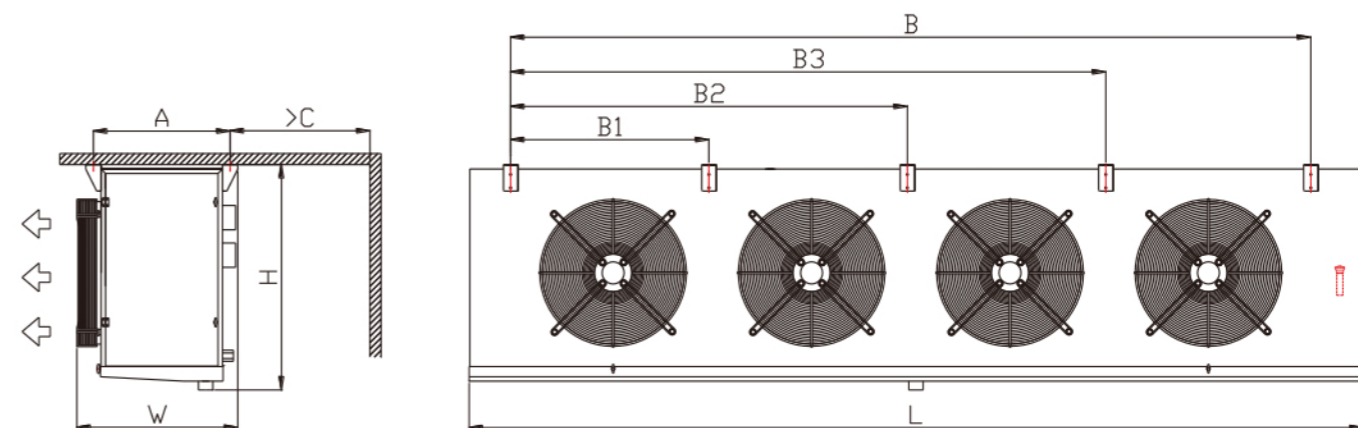


4、电器参数表 \ Electrical parameter table:

型号 Model	风扇电机 Fan motor			电热除霜 Electric Defrost			
	电压 Voltage (V)	功率 Power (W)	电流 current (A)	转速 Rev. (r/min)	盘管 Coil (KW)	水盘 Tray (KW)	总功率 total (KW)
ND10/130M-ES ND7/130L-ES ND5/130L-ES	220-1	93	0.44	1330	2×0.5	1×0.5	1.5
ND14/135M-ET ND10/135L-ET ND7/135J-ET	380-3	195	0.46	1383	2×0.5	1×0.5	1.5
ND20/230M-ES ND13/230L-ES ND9/230J-ES	220-1	186	0.88	1330	2×0.9	1×0.9	2.7
ND30/235M-ET ND20/235L-ET ND14/235J-ET	380-3	390	0.92	1383	2×0.9	1×0.9	2.7
ND28/240M-ET ND19/240L-ET ND14/240J-ET	380-3	480	1.04	1330	2×0.9	1×0.9	2.7
ND42/240M-ET ND30/240L-ET ND20/240J-ET	380-3	480	1.04	1330	2×1.16	1×1.28	3.6
ND55/240M-ET ND40/240L-ET ND27/240J-ET	380-3	480	1.04	1330	3×1.16	1×1.28	4.8
ND70/240M-ET ND50/240L-ET ND34/240J-ET	380-3	480	1.04	1330	4×1.16	1×1.28	5.9
ND83/250M-ET ND60/250L-ET ND41/250J-ET	380-3	1096	2.2	1380	4×1.33	2×1.38	8.1
ND105/250M-ET ND74/250L-ET ND51/250J-ET	380-3	1096	2.2	1380	5×1.33	2×1.38	9.4
ND138/350M-ET ND100/350L-ET ND68/350J-ET	380-3	1644	3.3	1380	5×1.73	2×1.78	12.2
ND166/350M-ET ND120/350L-ET ND81/350J-ET	380-3	1644	3.3	1380	6×1.73	2×1.78	13.9
ND180/450M-ET ND130/450L-ET ND90/450J-ET	380-3	2192	4.4	1380	4×2.73	2×2.8	16.5
ND225/450M-ET ND160/450L-ET ND110/450J-ET	380-3	2192	4.4	1380	6×2.73	2×2.8	22.0
ND270/450M-ET ND192/450L-ET ND132/450J-ET	380-3	2192	4.4	1380	6×2.73	2×2.8	22.0
ND300/455M-ET ND213/455L-ET ND146/455J-ET	380-3	2680	5.08	1377	7×2.73	2×2.8	24.7
ND360/455M-ET ND256/455L-ET ND176/455J-ET	380-3	2680	5.08	1377	8×2.73	2×2.8	27.4
ND373/463M-ET ND266/463L-ET ND182/463J-ET	380-3	3748	7.0	1378	8×3.0	2×3.1	30.2
ND448/463M-ET ND320/463L-ET ND220/463J-ET	380-3	3748	7.0	1378	9×3.0	2×3.1	33.2

5、外形图和尺寸表 \ Outline and installation dimension:

型号 Model	外形尺寸 Outline (mm)			安装尺寸 Installation dimension (mm)						
	L	W	H	A	B	B1	B2	B3	C	安装孔
ND*/130**	900	490	540	380	530	/	/	/	300	4-φ13
ND*/135**	900	490	540	380	530	/	/	/	350	4-φ13
ND*/230**	1400	490	540	380	1030	/	/	/	300	4-φ13
ND*/235**	1400	490	540	380	1030	/	/	/	350	4-φ13
ND28/240M-ET ND19/240L-ET ND14/240J-ET	1400	490	590	380	1030	/	/	/	400	4-φ13
ND*/240**	1600	560	630	480	1230	/	/	/	400	4-φ13
ND*/250**	1900	640	730	560	1530	750	/	/	500	6-φ13
ND*/350**	2400	640	730	560	2030	667	1334	/	500	8-φ13
ND*/450**	3650	640	730	560	3280	812	1625	2437	500	10-φ13
ND*/455**	3650	640	930	560	3280	812	1625	2437	550	10-φ13
ND*/463**	4050	710	1030	620	3630	900	1800	2700	600	10-φ13







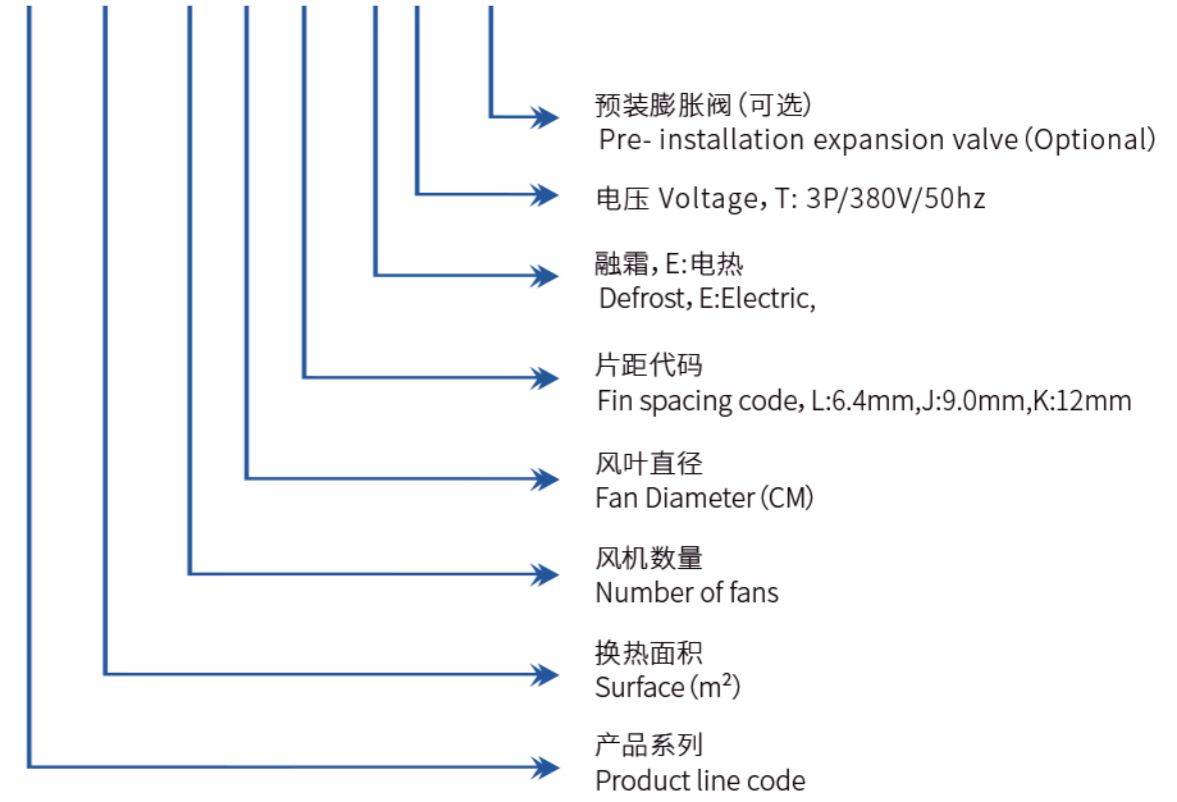
## LS 系列冷风机 / DE series unit coolers

### 1、产品概述 / Product description:

- ① 外壳:  
采用优质镀锌钢板表面喷塑, 防腐性能强;  
两侧板及外水盘拆卸方便;  
Casing: Adopt high-quality steel plate with powder coating RAL9003;
- ② 盘管:  
采用φ 15 铜管、管间距 50×50;  
波纹式铝片, 片距有 6.4mm、9.0mm 及 12mm;  
Heat exchanger coil: Copper tubingφ 15, Spacing 50×50 Corrugated aluminium fins, fin spacing 6.4mm,9.0mm&12.0mm
- ③ 风机:  
外转子风机, 风机直径 500mm 和 630mm;  
使用温度-40℃~60℃; 独立接线盒;  
Corrugated aluminium fins, fin spacing 6.4mm, 9.0mm&12.0mm, External rotor fans with fan bladeφ 500 and φ 630, Working temperature -40~60℃; Independent Fans junction box
- ④ 电热除霜:  
采用不锈钢加热管, 均布于盘管之间;  
独立的加热管接线盒。  
Electric Defrosting: Using stainless heating pipe, installed in the middle of coil and inner water plate Independent electric heating pipe junction box
- ⑤ 可满足 R404A、R507A、R448A、R449A、R22 等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R22 and other refrigerants

### 2、产品型号说明 / Model Explanation:

#### LS 55 / 1 50 M - E T - V



## LS 系列落地式冷风机 LS Series Ground-type Air Cooler





### 3. 性能数据表 Performance data sheet:

#### 3.1 片距 6.4mm Fin spacing 6.4mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K				进液 inlet	回气 outlet	排水 drain	
500 风机系列 Fan 500									
LS37/150L-ET	9.3	7.3	37.1	8.7	6900	φ 16	φ 28	G1.5	166
LS49/150L-ET	11.4	9.0	49.4	11.5	6500	φ 16	φ 28	G1.5	172
LS62/150L-ET	13.0	10.2	61.8	14.4	6200	φ 16	φ 28	G1.5	177
LS74/250L-ET	18.5	14.6	74.1	16.4	13800	φ 22	φ 42	G1.5	260
LS99/250L-ET	22.7	17.9	98.8	21.8	13000	φ 22	φ 42	G1.5	271
LS124/250L-ET	25.9	20.5	123.5	27.3	12400	φ 22	φ 42	G1.5	283
LS111/350L-ET	27.8	22.0	111.2	24.1	20700	φ 28	φ 50	2*G1.5	354
LS148/350L-ET	34.1	26.9	148.2	32.1	19500	φ 28	φ 50	2*G1.5	372
LS185/350L-ET	38.9	30.7	185.3	40.1	18600	φ 28	φ 50	2*G1.5	389
LS151/450L-ET	37.6	29.7	150.5	32.3	27600	φ 28	φ 50	2*G1.5	452
LS196/450L-ET	45.0	35.5	195.7	42.0	26000	φ 28	φ 50	2*G1.5	475
LS241/450L-ET	50.6	40.0	240.9	51.7	24800	φ 28	φ 50	2*G1.5	498
630 风机系列 Fan 630									
LS78/163L-ET	17.8	14.0	77.8	18.0	10100	φ 22	φ 35	G1.5	255
LS97/163L-ET	21.4	16.9	97.3	22.5	9600	φ 22	φ 35	G1.5	264
LS156/263L-ET	35.8	28.2	155.6	34.2	20200	φ 22	φ 42	G1.5	408
LS195/263L-ET	42.8	33.8	194.5	42.7	19200	φ 22	φ 42	G1.5	426
LS234/363L-ET	53.7	42.4	233.5	50.3	30300	φ 28	φ 50	2*G1.5	564
LS292/363L-ET	64.2	50.7	291.8	62.9	28800	φ 28	φ 50	2*G1.5	591
LS311/463L-ET	71.6	56.5	311.3	66.5	40400	2-φ 22	2-φ 42	2*G1.5	716
LS384/463L-ET	84.3	66.6	383.5	82.0	38400	2-φ 22	2-φ 42	2*G1.5	751

#### 3.2 片距 9.0mm Fin spacing 9.0mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K				进液 inlet	回气 outlet	排水 drain	
500 风机系列 Fan 500									
LS27/150J-ET	7.3	4.8	27.0	8.7	7000	φ 16	φ 28	G1.5	164
LS36/150J-ET	9.0	5.9	36.0	11.5	6800	φ 16	φ 28	G1.5	170
LS45/150J-ET	10.3	6.8	45.0	14.4	6500	φ 16	φ 28	G1.5	175
LS54/250J-ET	14.5	9.6	54.0	16.4	14000	φ 22	φ 42	G1.5	257
LS72/250J-ET	18.0	11.9	72.1	21.8	13600	φ 22	φ 42	G1.5	268
LS90/250J-ET	20.7	13.7	90.1	27.3	13000	φ 22	φ 42	G1.5	279
LS81/350J-ET	21.9	14.5	81.1	24.1	21000	φ 28	φ 50	2*G1.5	351
LS108/350J-ET	27.0	17.8	108.1	32.1	20400	φ 28	φ 50	2*G1.5	367
LS135/350J-ET	31.0	20.5	135.1	40.1	19500	φ 28	φ 50	2*G1.5	383
LS110/450J-ET	29.6	19.5	109.8	32.3	21000	φ 28	φ 50	2*G1.5	446
LS143/450J-ET	35.7	23.6	142.7	42.0	27200	φ 28	φ 50	2*G1.5	468
LS176/450J-ET	40.4	26.7	175.7	51.7	26000	φ 28	φ 50	2*G1.5	489
630 风机系列 Fan 630									
LS57/163J-ET	13.9	9.1	56.8	18.0	10300	φ 22	φ 35	G1.5	253
LS71/163J-ET	16.3	10.7	70.9	22.5	10000	φ 22	φ 35	G1.5	261
LS114/263J-ET	27.8	18.3	113.5	34.2	20600	φ 22	φ 42	G1.5	403
LS142/263J-ET	32.6	21.5	141.9	42.7	20000	φ 22	φ 42	G1.5	419
LS170/363J-ET	41.7	27.5	170.3	50.3	30900	φ 28	φ 50	2*G1.5	557
LS213/363J-ET	48.9	32.2	212.8	62.9	30000	φ 28	φ 50	2*G1.5	581
LS227/463J-ET	55.6	36.6	227.0	66.5	41200	2-φ 22	2-φ 42	2*G1.5	706
LS280/463J-ET	64.3	42.4	279.7	82.0	40000	2-φ 22	2-φ 42	2*G1.5	738

#### 3.3 片距 12.0mm Fin spacing 12.0mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	接口规格(mm) Connection pipe			重量 kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K				进液 inlet	回气 outlet	排水 drain	
500 风机系列 Fan 500									
LS21/150K-ET	5.8	3.5	20.8	8.7	7100	φ 16	φ 28	G1.5	164
LS28/150K-ET	7.2	4.3	27.8	11.5	6900	φ 16	φ 28	G1.5	170
LS35/150K-ET	8.7	5.2	34.7	14.4	6700	φ 16	φ 28	G1.5	175
LS42/250K-ET	11.6	7.0	41.7	16.4	14200	φ 22	φ 42	G1.5	256
LS56/250K-ET	14.5	8.7	55.6	21.8	13800	φ 22	φ 42	G1.5	267
LS69/250K-ET	17.4	10.4	69.4	27.3	13400	φ 22	φ 42	G1.5	277
LS63/350K-ET	17.5	10.5	62.5	24.1	21300	φ 28	φ 50	2*G1.5	350
LS83/350K-ET	21.6	13.0	83.3	32.1	20700	φ 28	φ 50	2*G1.5	365
LS104/350K-ET	26.0	15.6	104.2	40.1	20100	φ 28	φ 50	2*G1.5	381
LS85/450K-ET	23.6	14.1	84.6	32.3	28400	φ 28	φ 50	2*G1.5	445
LS110/450K-ET	28.6	17.2	110.0	42.0	27600	φ 28	φ 50	2*G1.5	467
LS135/450K-ET	33.8	20.2	135.4	51.7	26800	φ 28	φ 50	2*G1.5	487
630 风机系列 Fan 630									
LS44/163K-ET	11.1	6.6	43.7	18.0	10500	φ 22	φ 35	G1.5	252
LS55/163K-ET	13.1	7.8	54.7	22.5	10200	φ 22	φ 35	G1.5	260
LS88/263K-ET	22.3	13.4	87.5	34.2	21000	φ 22	φ 42	G1.5	401
LS109/263K-ET	26.2	15.7	109.4	42.7	20400	φ 22	φ 42	G1.5	417
LS131/363K-ET	33.5	20.1	131.2	50.3	31500	φ 28	φ 50	2*G1.5	554
LS164/363K-ET	39.4	23.6	164.1	62.9	30600	φ 28	φ 50	2*G1.5	578
LS175/463K-ET	44.6	26.7	175.0	66.5	42000	2-φ 22	2-φ 42	2*G1.5	703
LS216/463K-ET	51.7	31.0	215.6	82.0	40800	2-φ 22	2-φ 42	2*G1.5	734

### 4. 电器参数表 / Electrical parameter table:

型号 Model	风扇电机 Fan Motor				电热除霜 Electric Defrost		
	电压 Voltage (V)	功率 Power (W)	电流 Current (A)	转速 Rev. (r/min)	盘管 Coil (KW)	水盘 Tray (KW)	总功率 Total (KW)
LS37/150L-ET LS27/150J-ET LS21/150K-ET	380-3	548	1.1	1380	5×0.75	2×0.83	5.4
LS49/150L-ET LS36/150J-ET LS28/150K-ET	380-3	548	1.1	1380	5×0.75	2×0.83	5.4
LS62/150L-ET LS45/150J-ET LS35/150K-ET	380-3	548	1.1	1380	9×0.75	2×0.83	8.4
LS74/250L-ET LS54/250J-ET LS42/250K-ET	380-3	1096	2.2	1380	5×1.39	2×1.47	9.9
LS99/250L-ET LS72/250J-ET LS56/250K-ET	380-3	1096	2.2	1380	5×1.39	2×1.47	9.9
LS124/250L-ET LS90/250J-ET LS69/250K-ET	380-3	1096	2.2	1380	9×1.39	2×1.47	15.5
LS111/350L-ET LS81/350J-ET LS63/350K-ET	380-3	1644	3.3	1380	5×2.03	2×2.11	14.4
LS148/350L-ET LS108/350J-ET LS83/350K-ET	380-3	1644	3.3	1380	5×2.03	2×2.11	14.4
LS185/350L-ET LS135/350J-ET LS104/350K-ET	380-3	1644	3.3	1380	9×2.03	2×2.11	22.5
LS151/450L-ET LS110/450J-ET LS85/450K-ET	380-3	2192	4.4	1380	5×2.71	2×2.79	19.1



型号 Model	风扇电机 Fan Motor				电热除霜 Electric Defrost		
	电压 Voltage (V)	功率 Power (W)	电流 Current (A)	转速 Rev. (r/min)	盘管 Coil (kW)	水盘 Tray (kW)	总功率 Total (kW)
LS196/450L-ET LS143/450J-ET LS110/450K-ET	380-3	2192	4.4	1380	5×2.71	2×2.79	19.1
LS241/450L-ET LS176/450J-ET LS135/450K-ET	380-3	2192	4.4	1380	9×2.71	2×2.79	30.0
LS78/163L-ET LS57/163J-ET LS44/163K-ET	380-3	937	1.75	1378	7×0.83	2×0.91	7.6
LS97/163L-ET LS71/163J-ET LS55/163K-ET	380-3	937	1.75	1378	12×0.83	2×0.91	11.8
LS156/263L-ET LS114/263J-ET LS88/263K-ET	380-3	1874	3.5	1378	7×1.55	2×1.63	14.1
LS195/263L-ET LS142/263J-ET LS109/263K-ET	380-3	1874	3.5	1378	12×1.55	2×1.63	21.9
LS234/363L-ET LS170/363J-ET LS131/363K-ET	380-3	2811	5.25	1378	7×2.27	2×2.35	20.6
LS292/363L-ET LS213/363J-ET LS164/363K-ET	380-3	2811	5.25	1378	12×2.27	2×2.35	31.9
LS311/463L-ET LS227/463J-ET LS175/463K-ET	380-3	3748	7.0	1378	7×3.0	2×3.07	27.1
LS384/463L-ET LS280/463J-ET LS216/463K-ET	380-3	3748	7.0	1378	12×3.0	2×3.07	42.1

5. 外形图和尺寸表 Outline and installation dimension:

型号 Model	外形尺寸 Outline (mm)			安装尺寸 Install (mm)						图形 Drawing
	L	W	H	A	B	B1	B2	B3	安装孔 Hole	
LS*/150**	1130	920	2150	800	840	/	/	/	4-φ13	A
LS*/250**	1930	920	2150	800	1640	840	/	/	6-φ13	
LS*/350**	2730	920	2150	800	2440	840	1640	/	8-φ13	
LS*/450**	3580	920	2150	800	3290	853	1665	2478	10-φ13	
LS*/163**	1240	1030	2765	910	940	/	/	/	4-φ13	B
LS*/263**	2140	1030	2765	910	1840	940	/	/	6-φ13	
LS*/363**	3040	1030	2765	910	2740	940	1840	/	8-φ13	
LS*/463**	3940	1030	2765	910	3640	940	1840	2740	10-φ13	

备注: 图 A 为整体式结构, 图 B 为分体式结构。

Note: Figure A is an integral structure, while Figure B is A split structure.

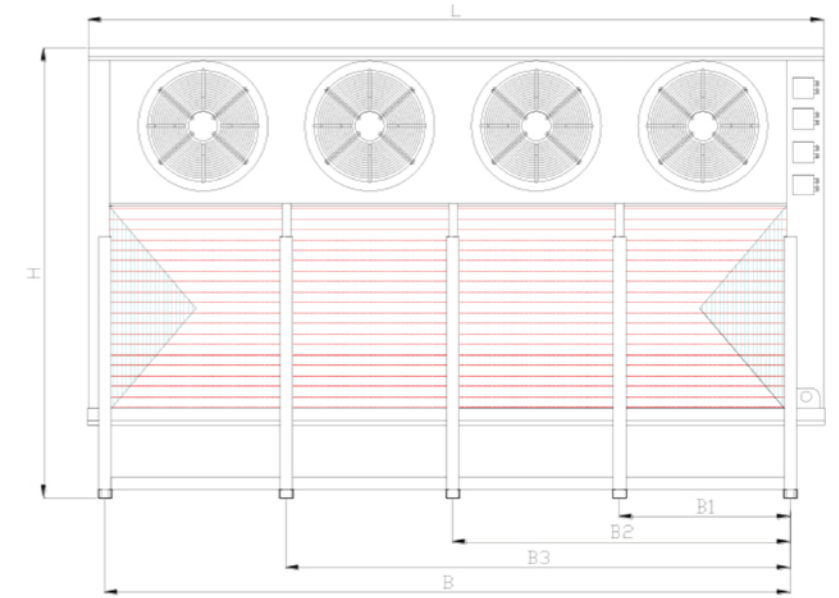
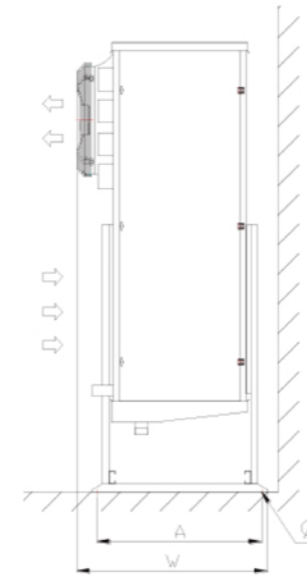


图 Drawing A

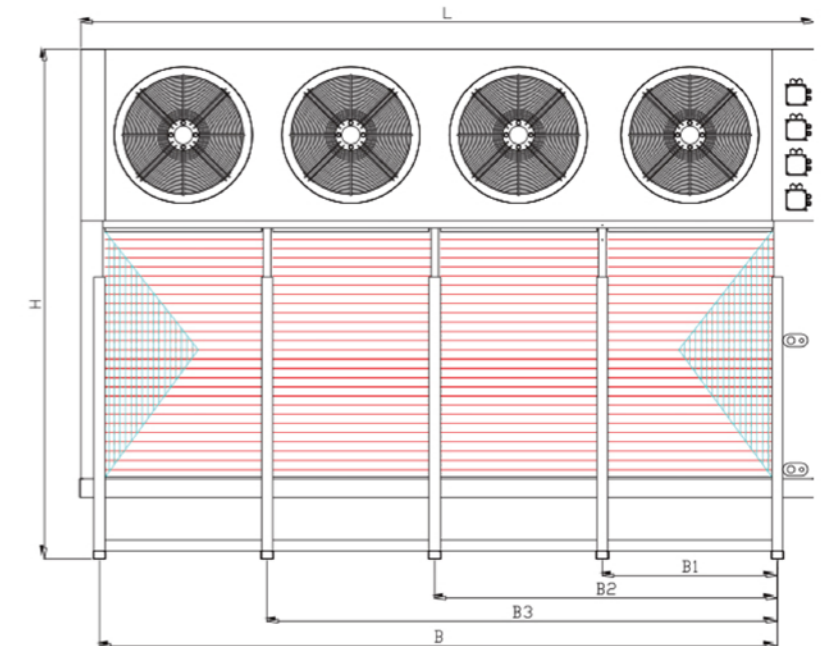
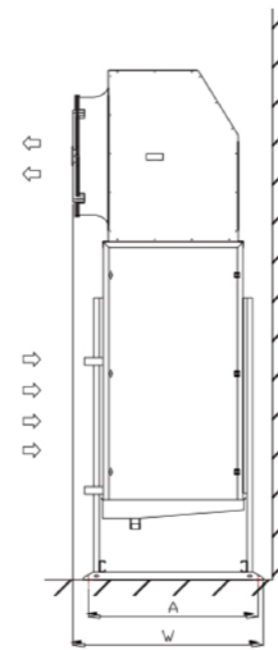


图 Drawing B





## LQF 系列落地式速冻型冷风机

### LQF Series Ground-type fast freezer special evaporators

#### 1、产品概述 / Product description:

- 采用优质镀锌钢板表面喷塑,防腐性能强; 两侧板及外水盘拆卸方便;

Casing: Adopt high-quality steel plate with powder coating RAL9003;
- 盘管: 采用φ15铜管、管间距50×50; 波纹式铝片,片距有6.4mm、10mm及12mm;

Heat exchanger coil:  
Copper tubingφ15,Spacing 50×50  
Corrugated aluminium fins,fin spacing 6.4mm,10.0mm&12.0mm
- 可满足R404A、R507A、R448A、R449A、R22等制冷剂使用。

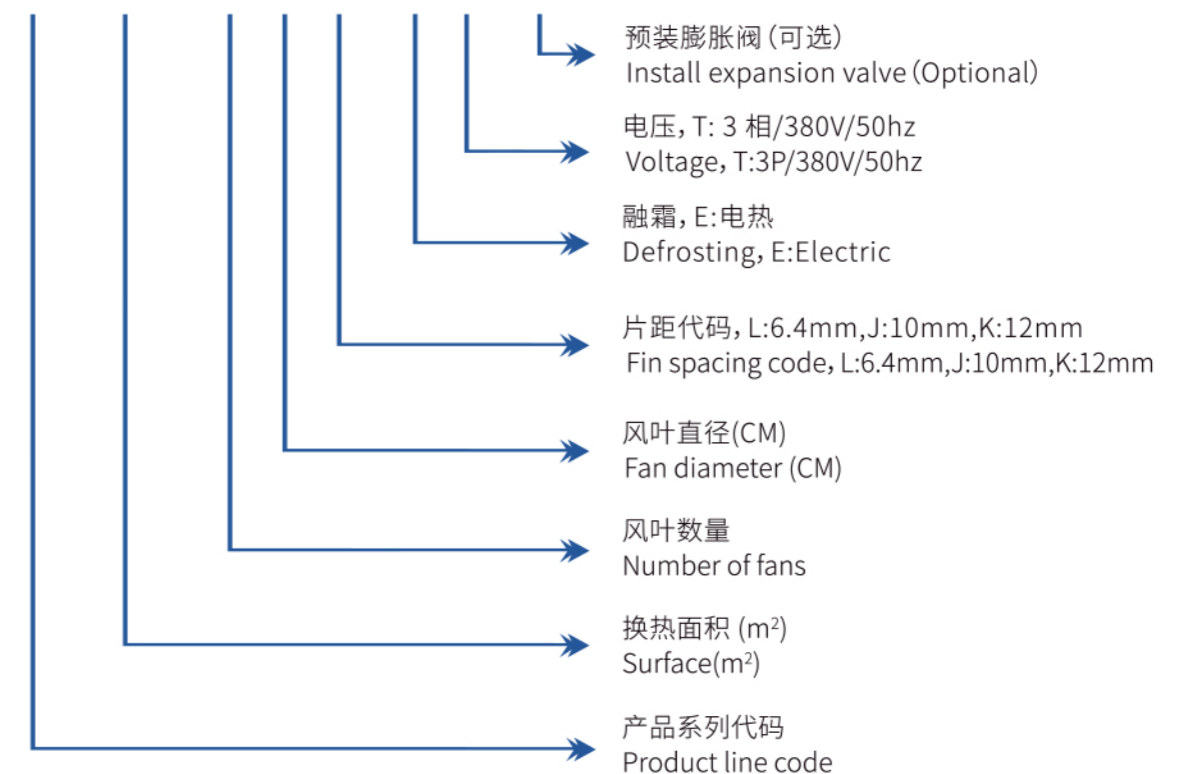
It can meet the requirements of R404A, R507A, R448A, R449A, R22 and other refrigerants.
- 电热除霜: 采用不锈钢加热管,均布于盘管之间; 独立的加热管接线盒。

Electric Defrosting:  
Using stainless heating pipe, installed in the middle of coil and inner water plate  
Independent electric heating pipe junction box.
- 风机: 外转子风机,大功率、高风压吹风型设计; 使用温度-50°C~60°C; 独立接线盒; 风机规格 φ630mm

Fans:  
External rotor fans with blow wind type , high wind pressure design,  
Working temperature -50~60°C  
Independent Fans junction box  
Fan blade φ630mm,

#### 2、产品型号说明 / Model Explanation:

### LQF 100 / 2 63 L - E T - V



## LQF 系列落地式速冻型冷风机

### Series Ground-type fast freezer special evaporators





### 3、性能数据表 / Performance data sheet :

型号 Model	制冷量/R404A (kW) Capacity			面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	接口规格(mm) Connect pipe			重量 Weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K	Tc=-35°C ΔT=6K				进液 inlet	回气 outlet	排水 drain	
片距 6.4mm Fins spacing 6.4mm										
LQF100/263L-ET	24.4	19.5	15.9	100	23.4	19400	φ16	φ35	G2.5"	203
LQF125/263L-ET	27.7	22.2	18.0	125	29.3	18600	φ22	φ42	G2.5"	216
LQF150/263L-ET	31.0	24.8	20.2	150	35.1	17800	φ22	φ42	G2.5"	229
LQF200/463L-ET	48.8	39.0	31.7	200	44.5	38800	φ22	φ42	G2.5"	372
LQF250/463L-ET	55.4	44.3	36.0	250	55.8	37200	φ22	φ42	G2.5"	298
LQF300/463L-ET	62.0	49.6	40.3	300	66.8	35600	φ28	φ50	G2.5"	425
LQF300/663L-ET	73.2	58.6	47.6	300	65.6	58200	φ28	φ50	G2.5"	547
LQF375/663L-ET	83.1	66.5	54.0	375	82.0	55800	φ28	φ50	G2.5"	576
LQF450/663L-ET	93.0	74.4	60.5	450	98.4	53400	2*φ22	2*φ42	G2.5"	605
片距 10mm Fins spacing 10.0mm										
LQF66/263J-ET	17.8	14.2	11.6	66	23.4	20000	φ16	φ35	G2.5"	195
LQF83/263J-ET	21.3	17.0	13.8	83	29.3	19200	φ22	φ42	G2.5"	206
LQF99/263J-ET	24.8	19.8	16.1	99	35.1	18400	φ22	φ42	G2.5"	217
LQF132/463J-ET	35.6	28.4	23.5	132	44.5	40000	φ22	φ42	G2.5"	356
LQF165/463J-ET	42.6	34.1	27.7	165	55.8	38400	φ22	φ42	G2.5"	379
LQF198/463J-ET	49.6	39.6	32.2	198	66.8	36800	φ28	φ50	G2.5"	402
LQF198/663J-ET	53.4	42.7	34.7	198	65.6	60000	φ28	φ50	G2.5"	524
LQF248/663J-ET	63.9	51.1	41.5	248	82.0	57600	φ28	φ50	G2.5"	547
LQF297/663J-ET	74.4	59.4	48.4	297	98.4	55200	2*φ22	2*φ42	G2.5"	570
片距 12mm Fins spacing 12mm										
LQF56/263K-ET	15.8	12.6	10.3	56	23.4	20400	φ16	φ35	G2.5"	192
LQF70/263K-ET	19.2	15.4	12.5	70	29.3	19600	φ22	φ42	G2.5"	202
LQF84/263K-ET	22.6	18.1	14.7	84	35.1	18800	φ22	φ42	G2.5"	213
LQF113/463K-ET	31.6	25.2	20.5	113	44.5	40800	φ22	φ42	G2.5"	351
LQF141/463K-ET	38.4	30.7	25.0	141	55.8	39200	φ22	φ42	G2.5"	373
LQF169/463K-ET	45.2	36.2	29.4	169	66.8	37600	φ28	φ50	G2.5"	395
LQF169/663K-ET	47.4	37.9	30.8	169	65.6	61200	φ28	φ50	G2.5"	514
LQF211/663K-ET	57.6	46.0	37.4	211	82.0	58800	φ28	φ50	G2.5"	536
LQF253/663K-ET	67.8	54.3	44.0	253	98.4	56400	2*φ22	2*φ42	G2.5"	558

1 备注：表中Tc为库温, ΔT为库温与蒸发温度之差。

Remarks: Tc is the cold room temp., and ΔT is the difference between the cold room temp. and the evap. temp.

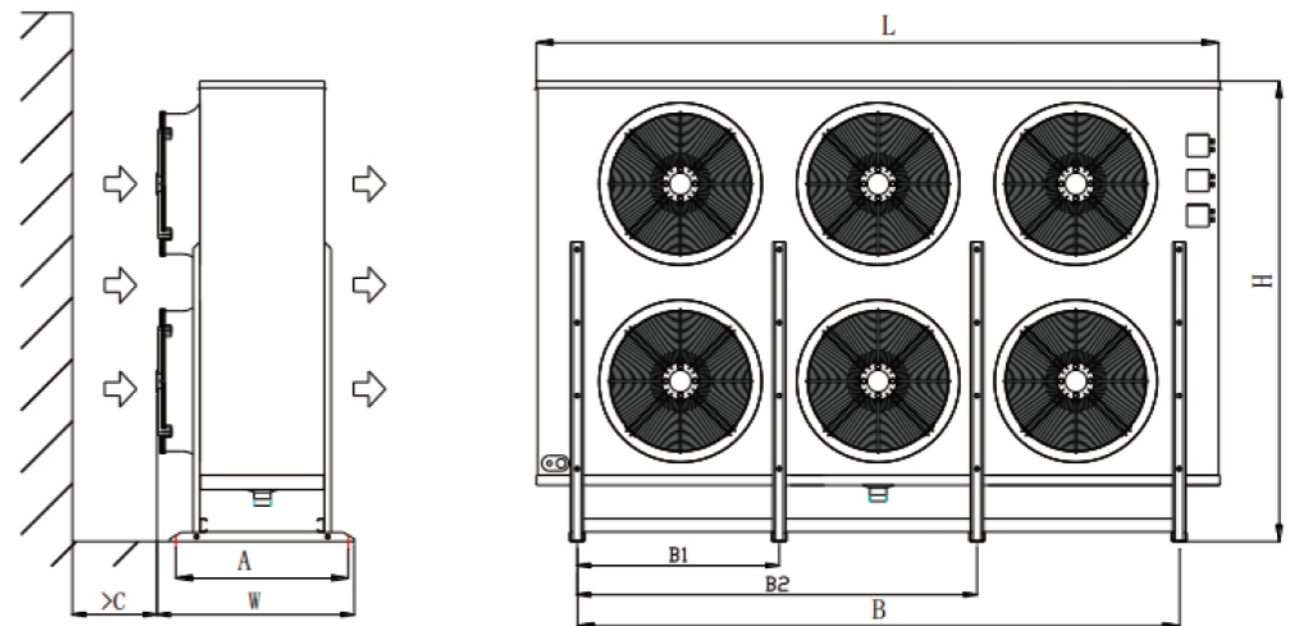
### 4、电器参数表 / Electrical parameter table :

型号 Model	风扇电机 Fan motor				电热除霜 Electric Defrost		
	电压 Voltage (V)	功率 Power (W)	电流 Current (A)	转速 Rev. (r/min)	盘管 Coil (KW)	水盘 Tray (KW)	总功率 Total (KW)
LQF100/263L-ET LQF66/263J-ET LQF56/263K-ET	380-3	1874	3.5	1378	10×0.85	2×0.9	10.3
LQF125/263L-ET LQF83/263J-ET LQF70/263K-ET	380-3	1874	3.5	1378	16×0.85	2×0.9	15.4

LQF150/263L-ET LQF99/263J-ET LQF84/263K-ET	380-3	1874	3.5	1378	16×0.85	2×0.9	15.4
LQF200/463L-ET LQF132/463J-ET LQF113/463K-ET	380-3	3748	7.0	1378	10×1.57	2×1.6	18.9
LQF250/463L-ET LQF165/463J-ET LQF141/463K-ET	380-3	3748	7.0	1378	16×1.57	2×1.6	28.3
LQF300/463L-ET LQF198/463J-ET LQF169/463K-ET	380-3	3748	7.0	1378	16×1.57	2×1.6	28.3
LQF300/663L-ET LQF198/663J-ET LQF169/663K-ET	380-3	5622	10.5	1378	10×2.3	2×2.3	27.6
LQF375/663L-ET LQF248/663J-ET LQF211/663K-ET	380-3	5622	10.5	1378	16×2.3	2×2.3	41.4
LQF450/663L-ET LQF297/663J-ET LQF253/663K-ET	380-3	5622	10.5	1378	16×2.3	2×2.3	41.4

### 5、外形图和尺寸表 / Outline and installation dimension:

型号 Model	外形尺寸 Outline (mm)			安装尺寸 Install (mm)					
	L	W	H	A	B	B1	B2	C	安装孔 Hole
LQF*/263**	1305	900	2200	825	940	/	/	400	4-φ13
LQF*/463**	2205	900	2200	825	1840	940	/	400	6-φ13
LQF*/663**	3105	900	2200	825	2740	940	1840	400	8-φ13







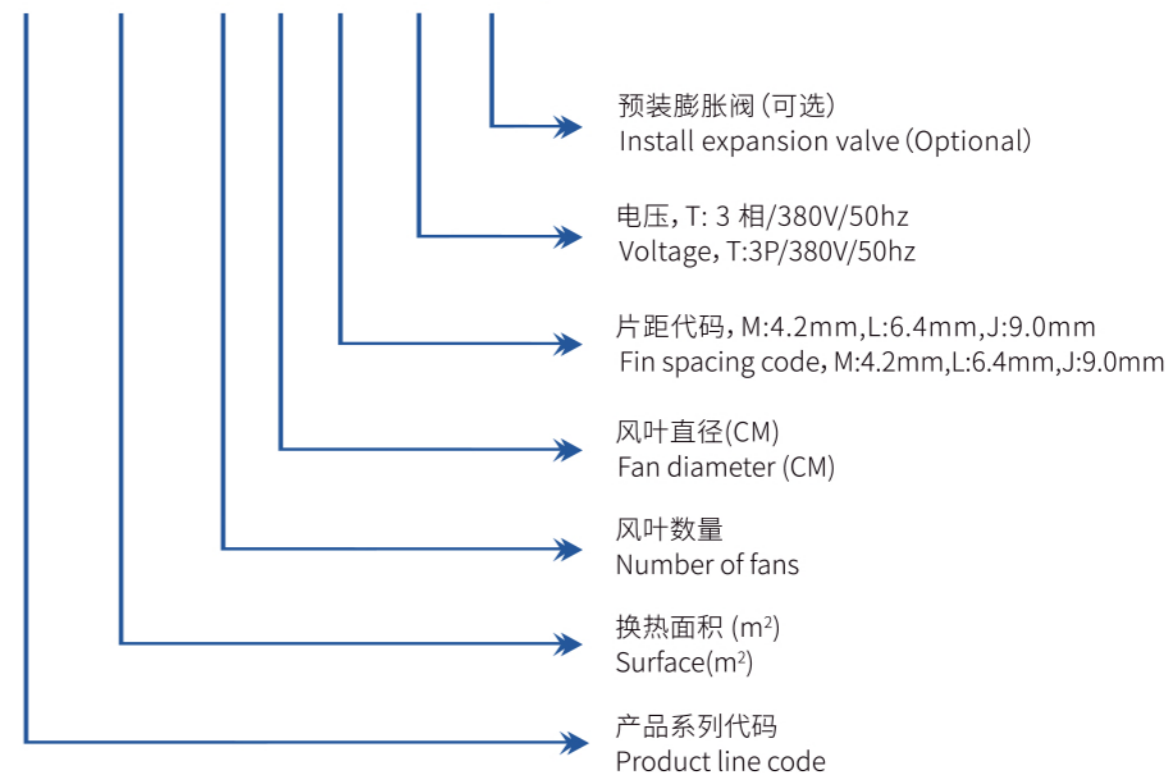
## WS 系列水冲霜冷风机 WS Series Unit Coolers With Water Defrosting

### 1、产品概述 / Product description:

- 1 采用优质钢板表面喷塑,防腐性能强;  
Casing: Adopt high-quality steel plate with powder coating RAL9003;
- 2 盘管:  $\phi 15$ 铜管、管间距 $50 \times 50$ ;  
波纹式铝片,片距有4.2mm、6.4mm及9.0mm;  
Heat Exchanger Coil:  
Copper tubing  $\phi 15$ , Spacing  $50 \times 50$   
Corrugated aluminium fins, fin spacing 4.2mm, 6.4mm & 9.0mm
- 3 可满足R404A、R507A、R448A、R449A、R134a、R22等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.
- 4 水除霜: 化霜时间短,对库温影响小  
采用筛网式的冲霜水盘及内外挡水板,防止冲霜时水溅入库内及风叶上;  
Water Defrosting:  
Using water defrosting method, the defrosting time is short, and the little effect on cold room temperature.  
Sieve poretype defrosting water pan and inner & outer water baffles are used to prevent water spraying into cold storage and wind blades during defrosting.
- 5 风机: 外转子风机,大功率、高风压设计;  
使用温度 $-40^{\circ}\text{C} \sim 60^{\circ}\text{C}$ ;  
整体拉伸高风筒设计,导风效果好、射程远、噪音低;  
独立的防水接线盒;  
风机规格 $\phi 400$ 、 $\phi 500$ 、 $\phi 630$   
Fans: External rotor motor with high wind pressure, working temperature  $-40 \sim 60^{\circ}\text{C}$   
High air duct design with integral stretching, good ventilation effect, further airtrow, lower noise  
Fans individually connected to junction box  
Fan blade  $\phi 400$ ,  $\phi 500$ ,  $\phi 630$ , standard 4-pole motor

### 2、产品型号说明 / Model Explanation:

**WS 110 / 3 40 M - T - V**



## WS 系列水冲霜冷风机 Series Unit Coolers With Water Defrosting





### 3、性能数据表 / Performance data sheet:

#### 3.1 片距 4.2mm

#### 3.1 Fins spacing 4.2mm

型号 Model	制冷量/R404A (kW) Capacity		面积 surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	风机 Fans		冲霜水 Defrost m <sup>3</sup> /h	重量 Weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					功率 Power(W)	电流 Current(A)		
WS36/140M-T	5.4	4.3	35.9	5.9	2700	3	240	0.52	1.2	68
WS72/240M-T	10.8	8.6	71.9	10.9	5400	5	480	1.04	2.3	110
WS83/340M-T	14.1	11.3	82.9	12.3	9000	7	720	1.56	2.7	148
WS110/340M-T	16.6	13.3	110.6	16.4	8100	6	720	1.56	3.6	159
WS144/440M-T	21.6	17.3	143.8	21.1	10800	9	960	2.08	4.6	203
WS180/540M-T	27.0	21.6	179.7	26.2	13500	12	1200	2.6	5.8	244
WS58/150M-T	9.8	7.8	58.1	9.3	6000	10	548	1.1	1.9	103
WS73/150M-T	11.2	8.9	72.6	11.3	5750	10	548	1.1	2.4	109
WS87/150M-T	12.5	10.0	87.1	13.3	5500	10	548	1.1	2.8	115
WS116/250M-T	19.7	15.8	116.1	17.4	12000	13	1096	2.2	3.8	176
WS145/250M-T	22.4	17.9	145.2	21.4	11500	13	1096	2.2	4.8	187
WS174/250M-T	25.0	20.0	174.2	25.5	11000	13	1096	2.2	5.6	198
WS174/350M-T	29.6	23.6	174.2	25.5	18000	15	1644	3.3	5.6	245
WS205/350M-T	32.4	25.9	205.3	29.7	17250	15	1644	3.3	6.8	262
WS261/350M-T	37.5	30.0	261.3	37.6	16500	15	1644	3.3	8.4	279
WS274/450M-T	43.2	34.6	273.7	39.2	23000	17	2192	4.4	9.0	335
WS348/450M-T	49.6	39.7	348.4	49.7	22000	17	2192	4.4	11.2	357
WS199/263M-T	31.8	25.4	199.0	28.9	20400	22	1874	3.5	6.4	267
WS249/263M-T	36.1	28.9	248.8	36.1	19800	22	1874	3.5	8.2	287
WS299/263M-T	40.4	32.3	298.5	43.3	19200	22	1874	3.5	9.6	307
WS299/363M-T	47.7	38.2	298.5	42.8	30600	25	2811	5.25	9.6	377
WS373/363M-T	54.2	43.3	373.2	53.5	29700	25	2811	5.25	12.3	407
WS448/363M-T	60.6	48.5	447.8	64.1	28800	25	2811	5.25	14.3	437

1 备注:

- 1) 表中Tc为库温, ΔT为传热温差。
- 2) 冲霜水量计算依据: 进水温度15°C、出水温度5°C、冲霜时间5分钟。

Remarks:

1. Tc is the cold room temp., and ΔT is the difference between the cold room temp.and the evaporation temperature.
2. Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C, defrost time 5 minutes.

#### 3.2 片距 6.4mm

#### 3.2 Fins spacing 6.4mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	风机 Fan		冲霜水 Defrost m <sup>3</sup> /h	重量 Weight kg
	Tc=0°C ΔT=8K	Tc=-18°C ΔT=7K					功率 power(W)	电流 Current(A)		
WS24/140L-T	4.1	3.3	24.1	5.9	2900	3	240	0.52	0.85	65
WS48/240L-T	8.2	6.6	48.2	10.9	5800	5	480	1.04	1.7	104
WS56/340L-T	9.7	7.8	55.6	12.3	9600	7	720	1.56	2.0	141
WS74/340L-T	12.5	10.0	74.1	16.4	8700	6	720	1.56	2.6	149
WS96/440L-T	16.4	13.1	96.3	21.1	11600	9	960	2.08	3.4	191
WS120/540L-T	20.5	16.4	120.4	26.2	14500	12	1200	2.6	4.2	229
WS39/150L-T	8.2	6.6	38.9	9.3	6200	10	548	1.1	1.4	98
WS49/150L-T	9.6	7.6	48.6	11.3	5950	10	548	1.1	1.7	103
WS58/150L-T	11.0	8.8	58.4	13.3	5700	10	548	1.1	2.0	108
WS78/250L-T	16.5	13.2	77.8	17.4	12400	13	1096	2.2	2.7	166
WS97/250L-T	19.2	15.3	97.3	21.5	11900	13	1096	2.2	3.4	175
WS117/250L-T	21.9	17.5	116.7	25.5	11400	13	1096	2.2	4.1	183
WS117/350L-T	24.8	19.8	116.7	25.5	18600	15	1644	3.3	4.1	229
WS138/350L-T	27.3	21.8	137.6	29.7	17850	15	1644	3.3	4.8	240
WS175/350L-T	32.9	26.3	175.1	37.6	17100	15	1644	3.3	6.1	256
WS183/450L-T	36.1	28.9	183.4	39.2	23800	17	2192	4.4	6.5	308
WS234/450L-T	43.8	35.0	233.5	49.7	22800	17	2192	4.4	8.2	327
WS133/263L-T	26.7	21.4	133.4	28.9	21200	22	1874	3.5	4.7	250
WS167/263L-T	30.8	24.6	166.8	36.1	11600	22	1874	3.5	5.8	266
WS200/263L-T	35.0	28.0	200.2	43.3	20000	22	1874	3.5	7.0	281
WS200/363L-T	40.0	32.0	200.2	42.8	31800	25	2811	5.25	7.0	352
WS250/363L-T	46.3	37.0	250.1	53.5	30900	25	2811	5.25	8.8	375
WS300/363L-T	52.5	42.0	300.2	64.1	30000	25	2811	5.25	10.5	398

1 备注:

- 1) 表中Tc为库温, ΔT为传热温差。
- 2) 冲霜水量计算依据: 进水温度15°C、出水温度5°C、冲霜时间5分钟。

Remarks:

1. Tc is the cold room temp., and ΔT is the difference between the cold room temp.and the evaporation temperature.
2. Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C, defrost time 5 minutes.



3.3 片距9.0mm  
3.3 Fins spacing 9.0mm

型号 Model	制冷量/R404A (KW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	风机		冲霜水 Defrost m <sup>3</sup> /h	重量 Weight kg
	Tc=0°C ΔT =8K	Tc=-18°C ΔT =7K					功率 Power(W)	电流 Current(A)		
WS18/140J-T	3.2	2.6	17.6	5.9	3100	3	240	0.52	0.65	64
WS35/240J-T	6.4	5.1	35.1	10.9	6200	5	480	1.04	1.2	102
WS41/340J-T	7.6	6.1	40.5	12.3	10200	7	720	1.56	1.4	141
WS54/340J-T	9.7	7.8	54.0	16.4	9300	6	720	1.56	1.9	147
WS70/440J-T	12.8	10.2	70.3	21.1	12400	9	960	2.08	2.5	188
WS88/540J-T	16.0	12.8	87.8	26.2	15500	12	1200	2.6	3.1	226
WS28/150J-T	7.0	5.6	28.3	9.3	6400	10	548	1.1	1.0	96
WS36/150J-T	8.6	6.8	35.5	11.3	6150	10	548	1.1	1.3	101
WS43/150J-T	10.1	8.1	42.5	13.3	5900	10	548	1.1	1.5	106
WS57/250J-T	14.1	11.3	56.6	17.4	12800	13	1096	2.2	2.1	162
WS71/250J-T	17.2	13.7	70.9	21.5	12300	13	1096	2.2	2.6	171
WS85/250J-T	20.2	16.2	85.0	25.5	11800	13	1096	2.2	3.0	179
WS85/350J-T	21.2	17.0	85.0	25.5	19200	15	1644	3.3	3.0	224
WS100/350J-T	24.2	19.4	100.3	29.7	18400	15	1644	3.3	3.6	235
WS128/350J-T	30.3	24.2	127.5	37.6	17700	15	1644	3.3	4.5	251
WS134/450J-T	32.5	26.0	133.8	39.2	24600	17	2192	4.4	4.8	300
WS170/450J-T	40.4	32.3	170.0	49.7	23600	17	2192	4.4	6.0	320
WS97/263J-T	23.1	18.5	97.1	28.9	22000	22	1874	3.5	3.4	246
WS122/263J-T	27.3	21.8	121.6	36.1	21400	22	1874	3.5	4.4	259
WS146/263J-T	31.4	25.1	145.7	43.3	20800	22	1874	3.5	5.1	271
WS146/363J-T	34.7	27.8	145.7	42.8	33000	25	2811	5.25	5.1	345
WS182/363J-T	40.9	32.7	182.4	53.5	32100	25	2811	5.25	6.6	367
WS219/363J-T	47.1	37.7	218.5	64.1	31200	25	2811	5.25	7.7	388

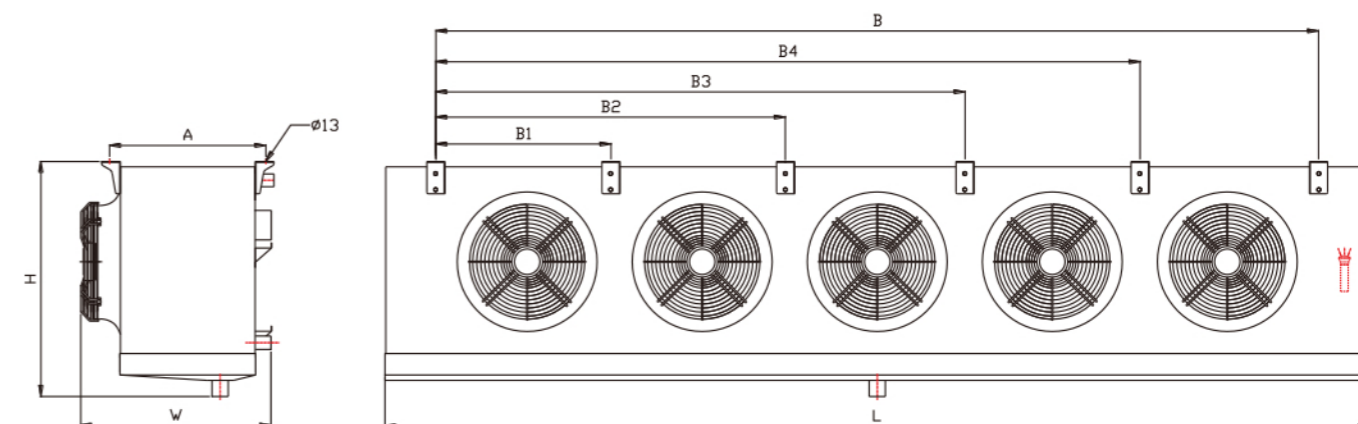
- 1 备注:
- 表中Tc为库温, ΔT为传热温差。
  - 冲霜水量计算依据: 进水温度15°C、出水温度5°C、冲霜时间5分钟。

Remarks:

- Tc is the cold room temp., and ΔT is the difference between the cold room temp.and the evaporation temperature.
- Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C, defrost time 5 minutes.

4、外形尺寸及接管规格表 \ Outline dimension and connection pipe size:

型号 Model	外形尺寸 Dimension (mm)			安装尺寸 Install (mm)						接管规格 Connect pipe			
	L	W	H	A	B	B1	B2	B3	B4	制冷剂 Refri.		冲霜水 Defrost	
										进液 inlet	回气 outlet	进水 inlet	排水 outlet
WS*/140*	1050	690	875	530	680	/	/	/	/	φ12	φ22	G1.5"	G2.5"
WS*/240*	1700	690	875	530	1330	/	/	/	/	φ16	φ28	G1.5"	G2.5"
WS*/340*	2400	690	875	530	2030	/	/	/	/	φ22	φ42	G1.5"	G2.5"
WS*/440*	3000	690	875	530	2630	/	1300	/	/	φ22	φ42	2-G1.5"	G3"
WS*/540*	3650	690	875	530	3280	/	1300	1950	/	φ28	φ50	2-G1.5"	G3"
WS*/150*	1300	790	975	630	930	/	/	/	/	φ16	φ28	G2"	G3"
WS*/250*	2200	790	975	630	1830	900	/	/	/	φ22	φ42	G2"	G3"
WS*/350*	3100	790	975	630	2730	900	1800	/	/	φ28	φ50	2-G2"	G4"
WS*/450*	4000	790	975	630	3630	900	1800	2700	/	φ28	φ50	2-G2"	G4"
WS*/263*	2800	820	1175	630	2430	1200	/	/	/	φ22	φ42	G2"	G3"
WS*/363*	4000	820	1175	630	3630	1200	2400	/	/	φ28	φ50	2-G2"	G4"







# CWS/EWS

## 系列风筒型水冲霜冷风机 CWS/ EWS Series High Air duct type Water Defrosting Unit Coolers

### EWS 系列风筒型水冲霜冷风机

### EWS Series CWS/EWS Series High Air duct type Water Defrosting Unit Coolers

#### 1、产品概述 / Product description:

CWS/EWS系列冷风机主要采用风筒型风机设计。CWS主要用于普通的中大型冷库，EWS主要用于防爆型原料冷库；

CWS/EWS series unit coolers mainly adopt the design of air duct type fans, mainly used in ordinary medium and large cold storage.

EWS is mainly used in explosion-proof raw material cold storage.

- 1 外壳：采用优质钢板表面喷塑，防腐性能强；  
Casing: Adopt high-quality steel plate with powder coating RAL9003;
- 2 盘管：φ15铜管、管间距50×50；  
波纹式铝片，片距有4.2mm、6.4mm及9.0mm；  
Copper tubing φ15, Spacing 50×50  
Corrugated aluminium fins, fin spacing 4.2mm, 6.4mm & 9.0mm
- 3 可满足R404A、R507A、R448A、R449A、R134a、R22等制冷剂使用。  
It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants.

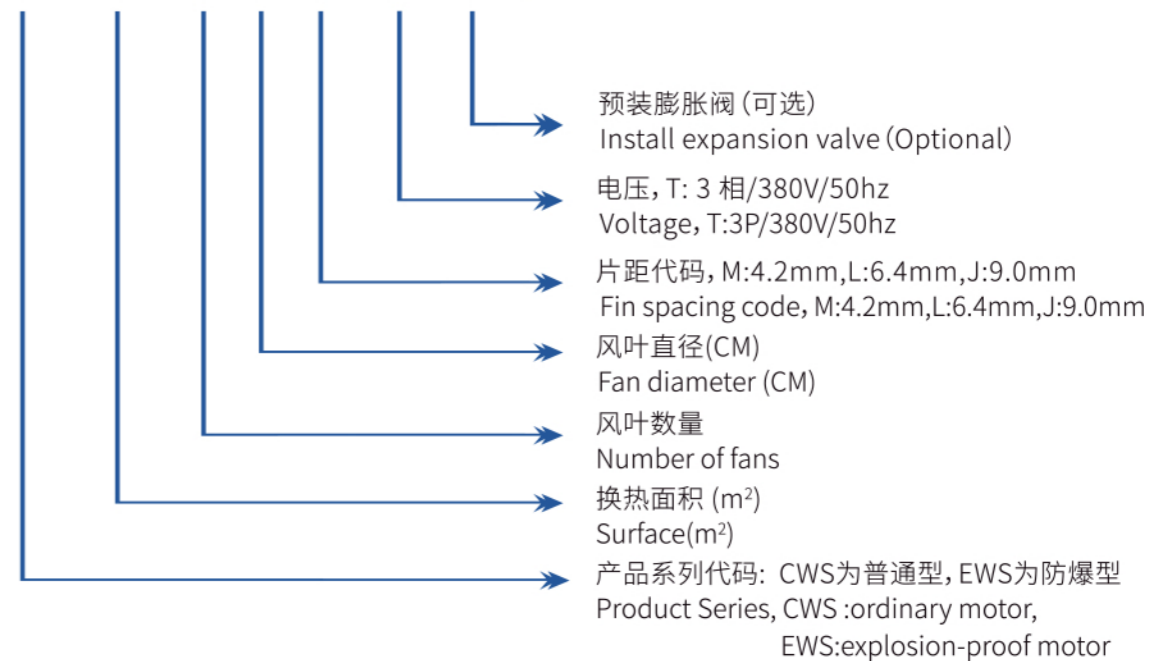
- 4 水除霜：化霜时间短，对库温影响小  
采用筛网式的冲霜水盘及内外挡水板，防止冲霜时水溅入库内及风叶上；  
Water Defrosting:  
Using water defrosting method, the defrosting time is short, and the little effect on cold room temperature. Sieve pore type defrosting water pan and inner & outer water baffles are used to prevent water spraying into cold storage and wind blades during defrosting.

- 5 风机：CWS系列采用普通风筒风机；EWS系列采用Exd II BT4隔爆型的风机，可用于1区和2区级别的防爆性混合气体空间  
风机规格φ500、φ600

Fans: CWS series adopts ordinary motor; EWS series adopts Exd II BT4 explosion-proof motor, can be used in zone 1 and 2 district-level other anti explosive mixed gas space. Fan blade φ500, φ600.

#### 2、产品型号说明 / Model Explanation:

### EWS 58 / 1 50 M - T - V





### 3、性能数据表 / Performance data sheet:

#### 3.1 片距 4.2mm

#### 3.1 Fins spacing 4.2mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	风机 Fan		冲霜水 Defrost m <sup>3</sup> /h	重量 Weight kg
	Tc=0°C ΔT=8K	Tc= 18°C ΔT=7K					功率 Power (W)	电流 Current(A)		
CWS58/150M-T	11.3	9.0	58.1	9.3	7500	12	780	1.6	1.9	110
CWS73/150M-T	12.7	10.2	72.6	11.3	7000	12	780	1.6	2.4	115
CWS87/150M-T	13.9	11.1	87.1	13.3	6500	12	780	1.6	2.8	123
CWS116/250M-T	22.6	18.0	116.1	17.4	15000	15	1560	3.2	3.8	191
CWS145/250M-T	25.4	20.3	145.2	21.4	14000	15	1560	3.2	4.8	202
CWS174/250M-T	27.8	22.2	174.2	25.5	13000	15	1560	3.2	5.6	213
CWS174/350M-T	33.9	27.1	174.2	25.5	22500	18	2340	4.8	5.6	268
CWS205/350M-T	35.9	28.7	205.3	29.7	21000	18	2340	4.8	6.8	285
CWS261/350M-T	41.8	33.4	261.3	37.6	19500	18	2340	4.8	8.4	302
CWS274/450M-T	47.9	38.3	273.7	39.2	30000	20	3120	6.4	9.0	365
CWS348/450M-T	55.7	44.6	348.4	49.7	28000	20	3120	6.4	11.2	387
CWS199/260M-T	36.8	29.4	199.0	28.9	25000	22	3200	7.0	6.4	295
CWS249/260M-T	41.0	32.8	248.8	36.1	24000	22	3200	7.0	8.2	315
CWS299/260M-T	44.8	35.8	298.5	43.3	23000	22	3200	7.0	9.6	335
CWS299/360M-T	55.2	44.2	298.5	42.8	37500	25	4800	10.5	9.6	420
CWS373/360M-T	61.5	49.2	373.2	53.5	36000	25	4800	10.5	12.3	450
CWS448/360M-T	67.2	53.7	447.8	64.1	34500	25	4800	10.5	14.3	480

1 备注:

- 1) 表中Tc为库温, ΔT为传热温差。
- 2) 冲霜水量计算依据: 进水温度15°C、出水温度5°C、冲霜时间5分钟。

Remarks:

1. Tc is the cold room temp., and ΔT is the difference between the cold room temp.and the evaporation temperature.
2. Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C,

#### 3.2 片距 6.4mm

#### 3.2 Fins spacing 6.4mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	风机 Fan		冲霜水 Defrost m <sup>3</sup> /h	重量 Weight kg
	Tc=0°C ΔT=8K	Tc= 18°C ΔT=7K					功率 Power (W)	电流 Current (A)		
CWS39/150L-T	9.3	7.4	38.9	9.3	7800	12	780	1.6	1.4	106
CWS49/150L-T	10.7	8.6	48.6	11.3	7500	12	780	1.6	1.7	111
CWS58/150L-T	12.3	9.8	58.4	13.3	7200	12	780	1.6	2.0	116
CWS78/250L-T	18.7	14.9	77.8	17.4	15600	15	1560	3.2	2.7	182
CWS97/250L-T	21.4	17.1	97.3	21.5	15000	15	1560	3.2	3.4	191
CWS117/250L-T	24.5	19.6	116.7	25.5	14400	15	1560	3.2	4.1	200
CWS117/350L-T	28.0	22.4	116.7	25.5	23400	18	2340	4.8	4.1	253
CWS138/350L-T	30.3	24.2	137.6	29.7	22500	18	2340	4.8	4.8	264
CWS175/350L-T	36.7	29.4	175.1	37.6	21600	18	2340	4.8	6.1	280
CWS183/450L-T	40.3	32.2	183.4	39.2	30000	20	3120	6.4	6.5	340
CWS234/450L-T	49.0	39.2	233.5	49.7	28800	20	3120	6.4	8.2	360

CWS133/260L-T	30.6	24.5	133.4	28.9	26000	22	3200	7.0	4.7	278
CWS167/260L-T	35.0	28.0	166.8	36.1	25000	22	3200	7.0	5.8	294
CWS200/260L-T	40.0	32.0	200.2	43.3	24000	22	3200	7.0	7.0	310
CWS200/360L-T	46.0	36.8	200.2	42.8	39000	25	4800	10.5	7.0	394
CWS250/360L-T	52.5	42.0	250.1	53.5	37500	25	4800	10.5	8.8	417
CWS300/360L-T	60.0	48.0	300.2	64.1	36000	25	4800	10.5	10.5	440

1 备注:

- 1) 表中Tc为库温, ΔT为传热温差。
- 2) 冲霜水量计算依据: 进水温度15°C、出水温度5°C、冲霜时间5分钟。

Remarks:

1. Tc is the cold room temp., and ΔT is the difference between the cold room temperature and the evaporation temperature.
2. Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C, defrost time 5 minutes.

#### 3.3 片距 9.0mm

#### 3.3 Fins spacing 9.0mm

型号 Model	制冷量/R404A (kW) Capacity		面积 Surface m <sup>2</sup>	管容 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	风机 Fan		冲霜水 Defrost m <sup>3</sup> /h	重量 Weight kg
	Tc=0°C ΔT=8K	Tc= 18°C ΔT=7K					功率 Power (W)	电流 Current (A)		
CWS28/150J-T	8.0	6.5	28.3	9.3	8100	12	780	1.6	1.0	104
CWS36/150J-T	9.5	7.6	35.5	11.3	7900	12	780	1.6	1.3	109
CWS43/150J-T	11.0	8.8	42.5	13.3	7700	12	780	1.6	1.5	114
CWS57/250J-T	16.1	12.9	56.6	17.4	16200	15	1560	3.2	2.1	178
CWS71/250J-T	20.2	16.1	70.9	21.5	15800	15	1560	3.2	2.6	187
CWS85/250J-T	22.1	17.6	85.0	25.5	15400	15	1560	3.2	3.0	195
CWS85/350J-T	24.2	19.4	85.0	25.5	24300	18	2340	4.8	3.0	348
CWS100/350J-T	27.0	21.6	100.3	29.7	23700	18	2340	4.8	3.6	260
CWS128/350J-T	33.1	26.5	127.5	37.6	23100	18	2340	4.8	4.5	275
CWS134/450J-T	36.1	28.9	133.8	39.2	31600	20	3120	6.4	4.8	332
CWS170/450J-T	44.2	35.3	170.0	49.7	30800	20	3120	6.4	6.0	352
CWS97/260J-T	26.7	21.3	97.1	28.9	27000	22	3200	7.0	3.4	274
CWS122/260J-T	31.6	25.3	121.6	36.1	26500	22	3200	7.0	4.4	287
CWS146/260J-T	36.4	29.1	145.7	43.3	26000	22	3200	7.0	5.1	300
CWS146/360J-T	40.0	32.0	145.7	42.8	40500	25	4800	10.5	5.1	387
CWS182/360J-T	47.4	37.9	182.4	53.5	39750	25	4800	10.5	6.6	410
CWS219/360J-T	54.6	43.7	218.5	64.1	39000	25	4800	10.5	7.7	430

1 备注:

- 1) 表中Tc为库温, ΔT为传热温差。
- 2) 冲霜水量计算依据: 进水温度15°C、出水温度5°C、冲霜时间5分钟。

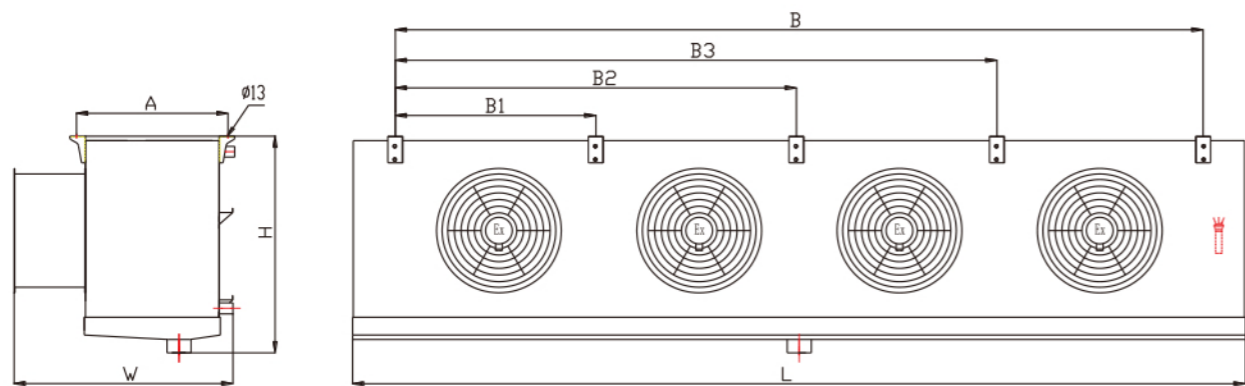
Remarks:

1. Tc is the cold room temp., and ΔT is the difference between the cold room temp.and the evaporation temperature.
2. Calculating of defrosting water flow: water inlet temperature 15 C and outlet temperature 5 C, defrost time 5 minutes.



4、外形尺寸及接管规格表 / Outline dimension and connection pipe size:

型号 Model	外形尺寸 Outline(mm)			安装尺寸 Install (mm)					接管规格 Connect pipe			
									制冷剂 Refri.		冲霜水 Defrost	
	L	W	H	A	B	B1	B2	B3	进液 Inlet	回气 Outlet	进水 inlet	排水 Drain
CWS*/150*	1300	980	975	630	930	/	/	/	φ 16	φ28	G2"	G3"
CWS*/250*	2200	980	975	630	1830	900	/	/	φ 22	φ42	G2"	G3"
CWS*/350*	3100	980	975	630	2730	900	1800	/	φ 28	φ50	2-G2"	G4"
CWS*/450*	4000	980	975	630	3630	900	1800	2700	φ 28	φ50	2-G2"	G4"
CWS*/260*	2800	980	1175	630	2430	1200	/	/	φ 22	φ42	G2"	G3"
CWS*/360*	4000	980	1175	630	3630	1200	2400	/	φ 28	φ50	2-G2"	G4"



**GS**

系列乙二醇冷风机  
Series Industrial glycol air coolers





# GS 系列乙二醇冷风机

## GS Series Industrial glycol air coolers

### 1、产品概述 / Product description:

本公司开发的GS系列的冷风机主要用于以乙二醇水溶液为载冷剂的冷库降温设备。低温的乙二醇水溶液在冷风机的换热管内循环，吸收外部的热量，从而达到降低库温的目的。GS系列的冷风机可分别满足10°C、0°C及-18°C左右的冷库使用。

The GS series industrial glycol air coolers is mainly used for cooling equipment in cold storage with glycol coolant. The low temperature glycol aqueous solution in the heat exchanger tube of the air cooler to absorb the external heat so as to reduce the storage temperature. The GS series air cooler can be used in cold storage at about 10°C, 0°C and - 18 °C respectively

① 外壳：采用优质钢板表面喷塑，防腐性能强；侧板及外水盘板采用铰链式结构，操作方便。

Casing: Adopt high-quality steel plate with powder coating RAL9003. Hinged structure is adopted for both side plates and external drip tray, which is convenient and quick to operate.

② 风机：外转子风机，大功率、高风压设计；使用温度-40°C~60°C；

整体拉伸高风筒设计，导风效果好、射程远、噪音低；独立的防水接线盒；风机规格φ400、φ500、φ630

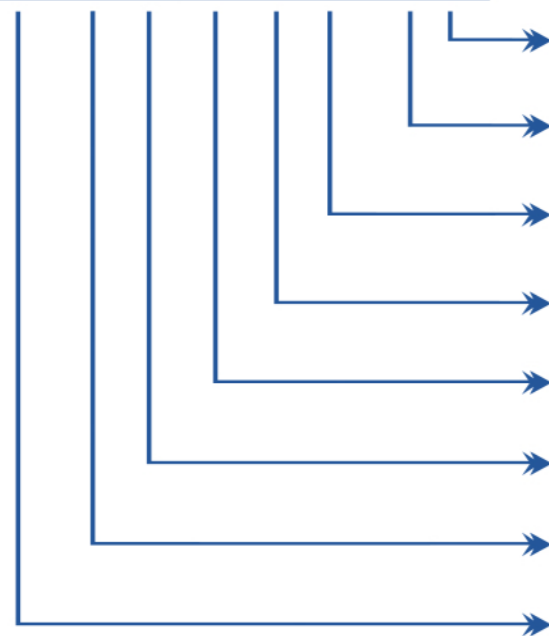
Fans: External rotor motor with high wind pressure, working ambient temperature -40~60°C, High air duct design with Integral stretching, good ventilation effect, further airtow, lower noise, Fans individually connected to junction box; Fan blade φ400, φ500, φ630, standard 4-pole motor.

③ 盘管：φ15铜管、管间距50×50；波纹式铝片，片距有4.2mm、6.4mm及9.0mm；Heat Exchanger Coil: Copper tubing φ15, spacing 50×50, Corrugated aluminium fins, fin spacing 4.2mm and 6.4mm and 9.0mm

④ 采用不锈钢加热管，安装于盘管中间及内水盘板上，提供快速有效的融霜。Electric Defrosting: he stainless electric heating pipe Installed in the middle of coil and inner water plate, permits quick and efficient defrost of the coil. Independent electric heating pipes junction box.

### 2、产品型号说明 / Model Explanation:

#### GS 36 C / 1 40 M - E T



- 电压, T: 3 相/380V/50hz  
Voltage, T: 3P/380V/50hz
- 除霜代码, E: 电热, A: 空气 (不配加热管)  
Defrost, E: Electric, A: Air
- 片距代码, M: 4.2mm, L: 6.4mm, J: 9.0mm  
Fin Spacing, M: 4.2mm, L: 6.4mm, J: 9.0mm
- 风叶直径(CM)  
Fan diameter (CM)
- 风叶数量  
Number of fans
- 管排数, 有 C、D、E、F  
Rows, C、D、E、F
- 换热面积 (m²)  
Surface (m²)
- 产品系列代码  
Product line code

### 3、性能数据表 / Performance data sheet:

3.1 片距 4.2mm Fin spacing 4.2mm  
3.1 Fins spacing 4.2mm

型号 Model	乙二醇 Glycol 25% T <sub>i</sub> =3°C, T <sub>o</sub> =2°C Tr=10°C, RH85%		乙二醇 Glycol 34% T <sub>i</sub> =10°C, T <sub>o</sub> =7°C Tr=0°C, RH85%		面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	重量 Weight kg
	冷量 KW Capacity	流量(m3/h) Liquid flow	冷量 kw Capacity	流量(m3/h) Liquid flow					
400 风机系列 Fan 400mm									
GS36C/140M-ET	7.2	1.3	3.9	1.2	35.9	5.9	2700	7	53
GS54E/140M-ET	10.2	1.9	5.4	1.7	53.9	8.8	2500	6	67
GS72C/240M-ET	14.4	2.7	7.9	2.5	71.9	11.0	5400	11	88
GS108E/240M-ET	20.5	3.8	10.8	3.4	107.8	16.4	5000	10	106
GS110C/340M-ET	22.1	4.1	12.2	3.8	110.6	16.4	8100	13	134
GS166E/340M-ET	31.5	5.8	16.6	5.1	165.9	24.6	7500	12	166
GS144C/440M-ET	28.8	5.3	15.8	4.9	143.8	21.1	10800	15	172
GS216E/440M-ET	40.9	7.6	21.6	6.7	215.7	31.7	10000	14	210
GS180C/540M-ET	35.9	6.6	19.8	6.2	179.7	26.2	13500	16	214
GS270E/540M-ET	51.2	9.5	27.0	8.4	269.7	39.5	12500	15	260
500 风机系列 Fan 500mm									
GS58C/150M-ET	12.2	2.3	6.7	2.1	58.0	9.3	6000	18	79
GS73D/150M-ET	14.5	2.7	7.6	2.4	72.6	11.4	5800	18	85
GS87E/150M-ET	16.1	3.0	8.3	2.6	87.1	13.7	5500	17	91
GS116C/250M-ET	24.4	4.5	13.3	4.2	116.1	17.3	12000	21	145
GS145D/250M-ET	29.0	5.4	15.2	4.7	145.2	21.7	11600	21	157
GS174E/250M-ET	32.2	6.0	16.5	5.2	174.2	26.0	11000	20	168
GS174C/350M-ET	36.6	6.8	20.0	6.2	174.2	25.6	18000	23	202
GS218D/350M-ET	43.5	8.0	22.9	7.1	217.7	32.0	17400	23	220
GS261E/350M-ET	48.3	8.9	24.8	7.7	261.3	38.3	16500	22	237
CS232C/450M-ET	48.8	9.0	26.7	8.3	232.2	33.8	24000	25	263
CS290D/450M-ET	58.1	10.7	30.5	9.5	290.3	42.2	23200	25	286
GS348E/450M-ET	64.5	11.9	33.1	10.3	348.4	50.6	22000	24	309
630 风机系列 Fan 630mm									
GS100C/163M-ET	20.9	3.9	11.4	3.6	99.5	15.3	10200	32	123
GS124D/163M-ET	24.9	4.6	13.1	4.1	124.4	19.0	9900	32	135
GS149E/163M-ET	27.6	5.1	14.2	4.4	149.3	22.9	9600	31	145
GS199C/263M-ET	41.8	7.7	22.9	7.1	199.1	29.3	20400	35	213
GS249D/263M-ET	49.8	9.2	26.1	8.1	248.8	36.6	19800	35	233
GS299E/263M-ET	55.2	10.2	28.4	8.8	298.6	44.0	19200	34	253
GS299C/363M-ET	62.7	11.6	34.3	10.7	298.6	43.4	30600	37	303
GS373D/363M-ET	74.6	13.8	39.2	12.2	373.2	54.2	29700	37	332
GS448E/363M-ET	82.9	15.3	42.6	13.2	447.9	65.0	28800	36	362

① 备注：表中 T1 为乙二醇载冷剂的进口温度、T2 为出口温度，Tr 为库温。

Remarks: T1 is inlet Temp. of glycol water, T2 is outlet Temp., and Tr is storage room Temp.



3.2 片距 6.4mm  
3.2 Fin spacing 6.4mm

型号 Model	乙二醇 Glycol34% T <sub>1</sub> = 10°C, T <sub>2</sub> = 7°C Tr=0°C, RH85%		乙二醇 Glycol50% T <sub>1</sub> = 28°C, T <sub>2</sub> = 25°C Tr= 18°C, RH95%		面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	重量 Weight kg
	冷量 KW Capacity	流量(m3/h) Liquid flow	冷量 KW Capacity	流量(m3/h) Liquid flow					
400 风机系列 Fan 400mm									
GS24C/140L-ET	3.9	1.2	3.1	1.1	24.1	5.9	2900	7	49
GS36E/140L-ET	5.2	1.6	4.2	1.5	36.1	8.8	2700	6	60
GS48C/240L-ET	7.7	2.4	6.3	2.2	48.2	11.0	5800	12	78
GS72E/240L-ET	10.5	3.3	8.3	2.9	72.3	16.4	5400	11	97
GS74C/340L-ET	11.9	3.7	9.6	3.3	74.1	16.4	8700	13	108
GS111E/340L-ET	16.1	5.0	12.8	4.4	111.1	24.6	8100	12	136
GS96C/440L-ET	15.4	4.8	12.5	4.3	96.2	21.1	11600	15	140
GS145E/440L-ET	21.0	6.5	16.6	5.7	144.5	31.7	10800	14	171
GS120C/540L-ET	19.3	6.0	15.7	5.4	120.4	26.2	14500	16	169
GS181E/540L-ET	26.2	8.2	20.8	7.2	180.6	39.5	13500	15	207
500 风机系列 Fan500mm									
GS49D/150L-ET	8.3	2.6	6.3	2.2	48.6	11.4	6000	17	79
GS58E/150L-ET	9.3	2.9	7.0	2.4	58.4	13.7	5700	17	84
GS78F/150L-ET	10.9	3.4	7.8	2.7	77.8	18.2	5400	16	102
GS97D/250L-ET	16.5	5.1	12.6	4.4	97.3	21.7	12000	21	145
GS117E/250L-ET	18.7	5.8	14.0	4.8	116.7	26.0	11400	21	154
GS156F/250L-ET	21.8	6.8	15.6	5.4	155.6	34.6	10800	20	186
GS146D/350L-ET	24.8	7.7	19.0	6.5	145.9	31.9	18000	23	200
GS175E/350L-ET	28.0	8.7	21.0	7.2	175.1	38.3	17100	23	215
GS234F/350L-ET	32.7	10.1	23.4	8.0	233.5	51.0	16200	22	259
CS195D/450L-ET	33.1	10.3	25.3	8.7	194.5	42.2	24000	25	260
CS234E/450L-ET	37.4	11.6	28.0	9.6	233.5	50.6	22800	25	289
GS311F/450L-ET	43.6	13.5	31.1	10.7	311.3	67.5	21600	24	336
630 风机系列 Fan630mm									
GS83D/163L-ET	14.2	4.4	10.8	3.7	83.4	19.0	10200	32	124
GS100E/163L-ET	16.0	5.0	12.0	4.2	100.1	22.9	9900	32	132
GS133F/163L-ET	18.7	5.8	13.3	4.6	133.4	30.5	9600	31	157
GS167D/263L-ET	28.4	8.8	21.7	7.5	166.8	36.6	20400	35	212
GS200E/263L-ET	32.0	10.0	24.0	8.3	200.1	44.0	19800	35	227
GS267F/263L-ET	37.4	11.6	26.7	9.2	266.8	58.6	19200	34	273
GS250D/363L-ET	42.5	13.2	32.5	11.2	250.1	54.2	30600	37	300
GS300E/363L-ET	48.0	14.9	36.0	12.4	300.2	65.0	29700	37	323
GS400F/363L-ET	56.0	17.4	40.0	13.7	400.2	86.7	28800	36	391

1 备注：表中 T1 为乙二醇载冷剂的进口温度、T2 为出口温度，Tr 为库温。

Remarks: T1 is inlet Temp. of glycol water ,T2 is outlet Temp.,and Tr is storage roomTemp.

3.3 片距 9.0mm  
3.3 Fin spacing 9.0mm

型号 Model	乙二醇 Glycol34% T <sub>1</sub> = 10°C, T <sub>2</sub> = 7°C Tr=0°C, RH85%		乙二醇 Glycol 50% T <sub>1</sub> =-28°C, T <sub>2</sub> =-25°C Tr= 18°C, RH95%		面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	重量 Weight kg
	冷量 KW Capacity	流量(m3/h) Liquid flow	冷量 KW Capacity	流量(m3/h) Liquid flow					
400 风机系列 Fan 400mm									
GS18C/140J-ET	3.3	1.1	2.8	1.0	17.5	5.9	3000	7	49
GS26E/140J-ET	4.4	1.4	3.9	1.4	26.3	8.8	2800	6	60
GS35C/240J-ET	6.7	2.1	5.6	1.9	35.1	11.0	6000	12	78
GS53E/240J-ET	8.9	2.8	7.9	2.7	52.6	16.4	5600	11	97
GS54C/340J-ET	10.3	3.2	8.6	3.0	54.0	16.4	9000	13	108
GS81E/340J-ET	13.8	4.3	12.2	4.2	80.9	24.6	8400	12	136
GS70C/440J-ET	13.3	4.1	11.2	3.8	70.1	21.1	12000	15	140
GS105E/440J-ET	17.8	5.5	15.7	5.4	105.2	31.7	11200	14	171
GS88C/540J-ET	16.7	5.2	14.0	4.8	87.7	26.2	15000	16	169
GS132E/540J-ET	22.3	6.9	19.7	6.8	131.5	39.5	14000	15	207
500 风机系列 Fan 500mm									
GS35D/150J-ET	6.3	2.0	4.9	1.7	35.4	11.4	6200	17	79
GS43E/150J-ET	7.2	2.3	5.3	1.8	42.5	13.7	5900	17	84
GS57F/150J-ET	8.5	2.7	6.3	2.2	56.6	18.2	5600	16	102
GS71D/250J-ET	12.7	4.0	10.0	3.5	70.8	21.7	12400	21	145
GS85E/250J-ET	14.5	4.5	11.1	3.8	85.0	26.0	11800	21	154
GS113F/250J-ET	17.0	5.3	12.5	4.3	113.3	34.6	11200	20	186
GS106D/350J-ET	19.1	5.9	14.9	5.1	106.2	31.9	18600	23	200
GS128E/350J-ET	21.7	6.8	16.6	5.7	127.5	38.3	17700	23	215
GS170F/350J-ET	25.5	7.9	18.7	6.4	169.9	51.0	16800	22	259
CS142D/450J-ET	26.2	8.1	19.9	6.8	141.6	42.2	24800	25	260
CS170E/450J-ET	28.9	9.0	22.1	7.6	169.9	50.6	23600	25	289
GS227F/450J-ET	34.0	10.5	24.9	8.6	226.6	67.5	22400	24	336
630 风机系列 Fan 630mm									
GS61D/163J-ET	10.9	3.4	8.5	2.9	60.7	19.0	10500	32	124
GS73E/163J-ET	12.4	3.9	9.5	3.3	72.8	22.9	10200	32	132
GS97F/163J-ET	14.6	4.5	10.7	3.7	97.1	30.5	9900	31	157
GS121D/263J-ET	21.8	6.8	17.0	5.8	121.4	36.6	21000	35	212
GS146E/263J-ET	24.8	7.7	18.9	6.5	145.7	44.0	20400	35	227
GS194F/263J-ET	29.1	9.0	21.4	7.4	194.2	58.6	19800	34	273
GS182D/363J-ET	32.8	10.2	25.5	8.8	182.1	54.2	31500	37	300
GS219E/363J-ET	37.1	11.5	28.4	9.8	218.5	65.0	30600	37	323
GS291F/363J-ET	43.7	13.6	32.0	11.0	291.3	86.7	29700	36	391

1 备注：表中 T1 为乙二醇载冷剂的进口温度、T2 为出口温度，Tr 为库温。

Remarks: In table T1 is inlet Temp. of glycol water ,T2 is outlet Temp.,and Tr is storage roomTemp.

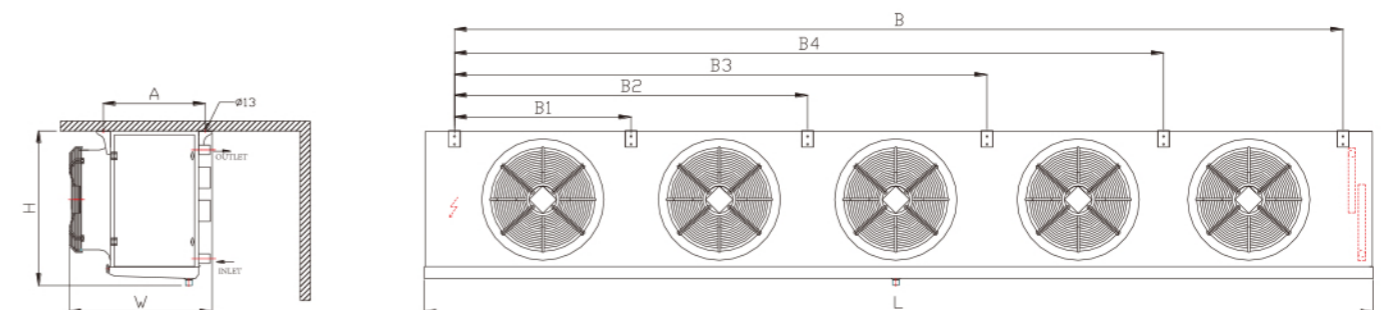


4、电器参数表 / Electrical parameter table :

型号 Model	风扇电机 Fan Motor				电热除霜 Electric Defrost		
	电压 (V) Voltage	功率 (W) Power	电流 (A) Current	转速 Rev. (r/min)	盘管 Coil (KW)	水盘 Tray (KW)	总功率 Total (KW)
GS**C/140**	380-3	240	0.52	1330	3×0.65	1×0.7	2.7
GS**E/140**	380-3	240	0.52	1330	5×0.65	2×0.7	4.7
GS**C/240**	380-3	480	1.04	1330	3×1.17	1×1.22	4.7
GS**E/240**	380-3	480	1.04	1330	5×1.17	2×1.22	8.3
GS**C/340**	380-3	720	1.56	1330	3×1.73	1×1.78	7.0
GS**E/340**	380-3	720	1.56	1330	5×1.73	2×1.78	12.2
GS**C/440**	380-3	960	2.08	1330	3×2.2	1×2.26	8.9
GS**E/440**	380-3	960	2.08	1330	5×2.2	2×2.26	15.5
GS**C/540**	380-3	1200	2.6	1330	3×2.73	1×2.8	11.0
GS**E/540**	380-3	1200	2.6	1330	5×2.73	2×2.8	19.3
GS**C/150**	380-3	548	1.1	1380	4×0.85	2×0.9	5.2
GS**D/150**	380-3	548	1.1	1380	5×0.85	2×0.9	6.1
GS**E/150**	380-3	548	1.1	1380	6×0.85	2×0.9	6.9
GS**F/150**	380-3	548	1.1	1380	9×0.85	2×0.9	9.5
GS**C/250**	380-3	1096	2.2	1380	4×1.57	2×1.62	9.5
GS**D/250**	380-3	1096	2.2	1380	5×1.57	2×1.62	11.1
GS**E/250**	380-3	1096	2.2	1380	6×1.57	2×1.62	12.7
GS**F/250**	380-3	1096	2.2	1380	9×1.57	2×1.62	17.4
GS**C/350**	380-3	1644	3.3	1380	4×2.3	2×2.34	13.9
GS**D/350**	380-3	1644	3.3	1380	5×2.3	2×2.34	16.2
GS**E/350**	380-3	1644	3.3	1380	6×2.3	2×2.34	18.5
GS**F/350**	380-3	1644	3.3	1380	9×2.3	2×2.34	25.4
GS**C/450**	380-3	2192	4.4	1380	4×3.0	2×3.1	18.2
GS**D/450**	380-3	2192	4.4	1380	5×3.0	2×3.1	21.2
GS**E/450**	380-3	2192	4.4	1380	6×3.0	2×3.1	24.2
GS**F/450**	380-3	2192	4.4	1380	9×3.0	2×3.1	33.2
GS**C/163**	380-3	937	1.75	1378	5×1.2	2×1.3	8.6
GS**D/163**	380-3	937	1.75	1378	7×1.2	2×1.3	11.0
GS**E/163**	380-3	937	1.75	1378	8×1.2	2×1.3	12.2
GS**F/163**	380-3	937	1.75	1378	12×1.2	2×1.3	17.0
GS**C/263**	380-3	1874	3.5	1378	5×2.1	2×2.2	14.9
GS**D/263**	380-3	1874	3.5	1378	7×2.1	2×2.2	19.1
GS**E/263**	380-3	1874	3.5	1378	8×2.1	2×2.2	21.2
GS**F/263**	380-3	1874	3.5	1378	12×2.1	2×2.2	29.6
GS**C/363**	380-3	2811	5.25	1378	5×3.1	2×3.2	21.9
GS**D/363**	380-3	2811	5.25	1378	7×3.1	2×3.2	28.1
GS**E/363**	380-3	2811	5.25	1378	8×3.1	2×3.2	31.2
GS**F/363**	380-3	2811	5.25	1378	12×3.1	2×3.2	43.6

5、外形和安装尺寸表 / Outline & installation dimension :

型号 Model	外形尺寸 Outline (mm)			安装尺寸 Install (mm)						接管规格 Connect Pipe		
	L	W	H	A	B	B1	B2	B3	B4	进口 Inlet	出口 Outlet	排水 Drain
GS**C/140**	1050	540	730	430	680	/	/	/	/	φ 28	φ 28	G1"
GS**E/140**	1050	640	730	530	680	/	/	/	/	φ 28	φ 28	G1"
GS**C/240**	1700	540	730	430	1330	/	/	/	/	φ 35	φ 35	G1"
GS**E/240**	1700	640	730	530	1330	/	/	/	/	φ 35	φ 35	G1"
GS**C/340**	2400	540	730	430	2030	/	/	/	/	φ 35	φ 35	2"G1"
GS**E/340**	2400	640	730	530	2030	/	/	/	/	φ 42	φ 42	2"G1"
GS**C/440**	3000	540	730	430	2630	/	1300	/	/	φ 42	φ 42	2"G1"
GS**E/440**	3000	640	730	530	2630	/	1300	/	/	φ 50	φ 50	2"G1"
GS**C/540**	3650	540	730	430	3280	/	1300	1950	/	φ 50	φ 50	3"G1"
GS**E/540**	3650	640	730	530	3280	/	1300	1950	/	φ 50	φ 50	3"G1"
GS**C/150**	1300	700	830	530	930	/	/	/	/	φ 35	φ 35	G1"
GS**D/150**	1300	700	830	530	930	/	/	/	/	φ 35	φ 35	G1"
GS**E/150**	1300	700	830	530	930	/	/	/	/	φ 35	φ 35	G1"
GS**F/150**	1300	850	830	680	930	/	/	/	/	φ 35	φ 35	G1"
GS**C/250**	2200	700	830	530	1830	900	/	/	/	φ 42	φ 42	G1"
GS**D/250**	2200	700	830	530	1830	900	/	/	/	φ 50	φ 50	G1"
GS**E/250**	2200	700	830	530	1830	900	/	/	/	φ 50	φ 50	G1"
GS**F/250**	2200	850	830	680	1830	900	/	/	/	φ 50	φ 50	G1"
GS**C/350**	3100	700	830	530	2730	900	1800	/	/	φ 50	φ 50	2"G1"
GS**D/350**	3100	700	830	530	2730	900	1800	/	/	φ 50	φ 50	2"G1"
GS**E/350**	3100	700	830	530	2730	900	1800	/	/	φ 50	φ 50	2"G1"
GS**F/350**	3100	850	830	680	2730	900	1800	/	/	φ 50	φ 50	2"G1"
GS**C/450**	4000	700	830	530	3630	900	1800	2700	/	φ 50	φ 50	3"G1"
GS**D/450**	4000	700	830	530	3630	900	1800	2700	/	φ 66	φ 66	3"G1"
GS**E/450**	4000	700	830	530	3630	900	1800	2700	/	φ 66	φ 66	3"G1"
GS**F/450**	4000	850	830	680	3630	900	1800	2700	/	φ 66	φ 66	3"G1"
GS**C/163**	1650	810	1030	620	1230	/	/	/	/	φ 42	φ 42	G1"
GS**D/163**	1650	810	1030	620	1230	/	/	/	/	φ 42	φ 42	G1"
GS**E/163**	1650	810	1030	620	1230	/	/	/	/	φ 42	φ 42	G1"
GS**F/163**	1650	910	1030	720	1230	/	/	/	/	φ 42	φ 42	G1"
GS**C/263**	2850	810	1030	620	2430	1200	/	/	/	φ 50	φ 50	2"G1"
GS**D/263**	2850	810	1030	620	2430	1200	/	/	/	φ 50	φ 50	2"G1"
GS**E/263**	2850	810	1030	620	2430	1200	/	/	/	φ 50	φ 50	2"G1"
GS**F/263**	2850	910	1030	720	2430	1200	/	/	/	φ 50	φ 50	2"G1"
GS**C/363**	4050	810	1030	620	3630	1200	1200	/	/	φ 66	φ 66	3"G1"
GS**D/363**	4050	810	1030	620	3630	1200	1200	/	/	φ 66	φ 66	3"G1"
GS**E/363**	4050	810	1030	620	3630	1200	1200	/	/	φ 66	φ 66	3"G1"
GS**F/363**	4050	910	1030	720	3630	1200	1200	/	/	φ 66	φ 66	3"G1"







## GDB系列双面侧吹风乙二醇冷风机

### GDB Series Dual Discharge industrial glycol air coolers

#### 1、产品概述 / Product description:

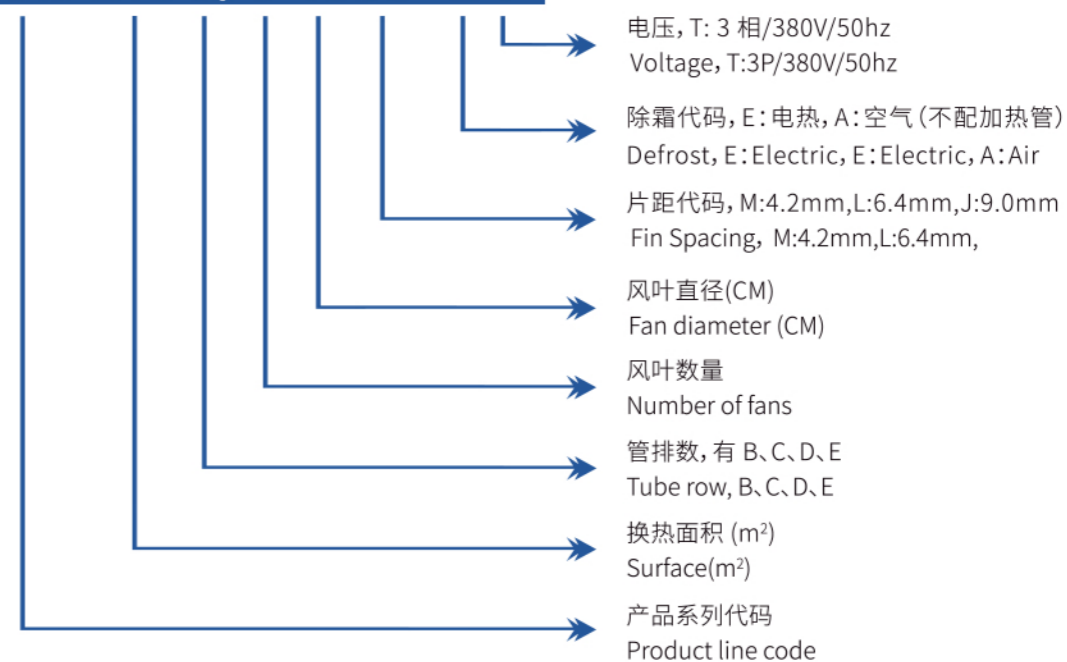
GDB系列的冷风机主要用于以乙二醇水溶液为载冷剂的冷库降温设备。下面进风，两侧面出风，主要用于较大的冷库操作间。GDB系列的冷风机可分别满足10°C、0°C及-18°C左右的冷库使用。

The GDB series unit cooler is mainly used for cooling equipment in cold storage with glycol coolant. It is mainly used in large cold storage operation rooms with air inlet from below and air outlet from both sides. The GDB series air cooler can be used in cold storage at about 10°C, 0°C and -18°C respectively.

- 1** 外壳：采用优质钢板表面喷塑，防腐性能强；外水盘板采用铰链式结构，操作方便。  
Casing: Adopt high-quality steel plate with powder coating RAL9003  
Hinged structure is adopted for external drip tray, which is convenient and quick to operate
- 2** 风机：外转子风机，使用温度-40°C~60°C；独立的防水接线盒；  
风机规格φ450  
独立的防水接线盒；  
风机规格φ400、φ500、φ630  
External rotor motor with high wind pressure, working ambient temperature -40~60°C; Fans individually connected to junction box; Fan blade φ450, standard 4-pole motor.
- 3** 盘管：φ15铜管、管间距50×50；波纹式铝片，片距有4.2mm、6.4mm  
Heat Exchanger Coil:  
Copper tubing φ15, spacing 50×50; Corrugated aluminium fins, fin spacing 4.2mm and 6.4mm.
- 4** 电热除霜：采用不锈钢加热管，安装于盘管中间及内水盘板上，提供快速有效的融霜  
Electric Defrosting:  
The stainless electric heating pipe installed in the middle of coil and inner water plate, permits quick and efficient defrost of the coil; Independent electric heating pipes junction box.

#### 2、产品型号说明 / Model Explanation:

**GDB 149 C / 3 45 M - E T**



# GDB

## 系列双面侧吹风乙二醇冷风机

### Series Dual Discharge industrial glycol air coolers





### 3、性能数据表 / Performance data sheet:

3.1 片距 4.2mm  
3.1 Fin spacing 4.2mm

型号 Model	乙二醇 Glycol 25% T <sub>1</sub> = -3°C, T <sub>2</sub> = 2°C Tr = 10°C, RH85%		乙二醇 Glycol 34% T <sub>1</sub> = 10°C, T <sub>2</sub> = -7°C Tr = 0°C, RH85%		面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	重量 Weight kg
	冷量 KW Capacity	流量(m <sup>3</sup> /h) Liquid flow	冷量 KW Capacity	流量(m <sup>3</sup> /h) Liquid flow					
GDB37B/145M-ET	9.3	1.7	4.1	1.3	37.3	6.5	4800	2×8	65
GDB50C/145M-ET	12.0	2.2	5.0	1.6	49.8	8.6	4500	2×8	70
GDB75B/245M-ET	18.7	3.5	8.2	2.5	74.6	12.2	9600	2×11	111
GDB100C/245M-ET	23.9	4.4	10.0	3.1	99.5	16.3	9000	2×11	121
GDB112B/345M-ET	28.0	5.2	12.3	3.8	112.0	18.0	14400	2×13	158
GDB149C/345M-ET	35.8	6.6	14.9	4.6	149.3	24.0	13500	2×13	173
GDB149B/445M-ET	37.3	6.9	16.4	5.1	149.3	23.8	19200	2×15	205
GDB199C/445M-ET	47.8	8.8	19.9	6.2	199.0	31.8	18000	2×15	224

3.2 片距 6.4mm  
3.2 Fin spacing 6.4mm

型号 Model	乙二醇 Glycol 34% T <sub>1</sub> = -10°C, T <sub>2</sub> = -7°C Tr = 0°C, RH85%		乙二醇 Glycol 50% T <sub>1</sub> = -28°C, T <sub>2</sub> = -25°C Tr = 18°C, RH95%		面积 Surface m <sup>2</sup>	管容积 Volume dm <sup>3</sup>	风量 Airflow m <sup>3</sup> /h	射程 Airthrow m	重量 Weight kg
	冷量 KW Capacity	流量(m <sup>3</sup> /h) Liquid flow	冷量 KW Capacity	流量(m <sup>3</sup> /h) Liquid flow					
GDB33C/145L-ET	5.3	1.7	4.3	1.5	33.4	8.6	4800	2×8	66
GDB50E/145L-ET	7.0	2.2	5.5	1.9	50.0	12.9	4200	2×8	81
GDB67C/245L-ET	10.7	3.3	8.7	3.0	66.7	16.3	9600	2×11	122
GDB100E/245L-ET	14.0	4.4	11.0	3.8	100.0	24.5	8400	2×11	139
GDB100C/345L-ET	16.0	5.0	13.0	4.5	100.0	24.0	14400	2×13	160
GDB150E/345L-ET	21.0	6.5	16.5	5.7	150.1	36.0	12600	2×13	197
GDB133C/445L-ET	21.3	6.6	17.3	5.9	133.4	31.8	19200	2×15	207
GDB189E/445L-ET	26.5	8.2	20.8	7.2	189.0	47.7	16800	2×15	254

1 备注：表中 T1 为乙二醇载冷剂的进口温度、T2 为出口温度，Tr 为库温。

Remarks: T1 is inlet Temp. of glycol water, T2 is outlet Temp., and Tr is storage room Temp.

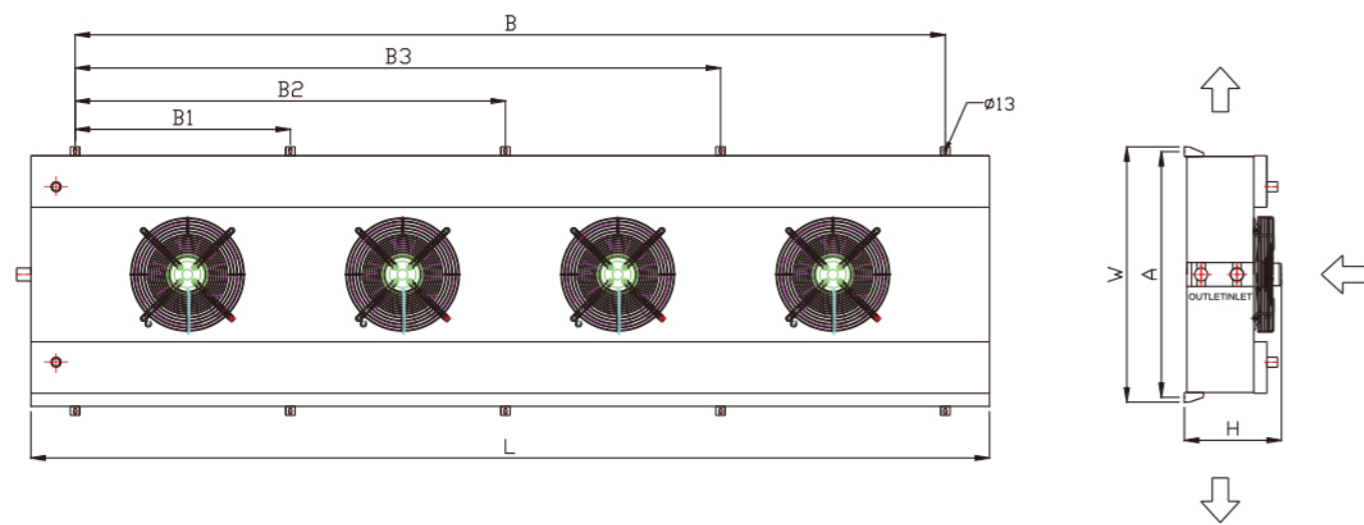
### 4、电器参数表 / Electrical parameter table:

型号 Model	风扇电机				电热除霜		
	电压 (V) Voltage	功率 (W) Power	电流 (A) Current	转速 Rev. (r/min)	盘管 Coil (KW)	水盘 Tray (KW)	总功率 Total (KW)
GDB37B/145M-ET	380-3	390	0.78	1365	2×0.85	2×0.9	3.5
GDB50C/145M-ET GDB33C/145L-ET	380-3	390	0.78	1365	4×0.85	2×0.9	5.2
GDB50E/145L-ET	380-3	390	0.78	1365	6×0.85	2×0.9	6.9
GDB75B/245M-ET	380-3	780	1.56	1365	2×1.6	2×1.6	6.4
GDB100C/245M-ET GDB67C/245L-ET	380-3	780	1.56	1365	4×1.6	2×1.6	9.6
GDB100E/245L-ET	380-3	780	1.56	1365	6×1.6	2×1.6	12.8
GDB112B/345M-ET	380-3	1170	2.34	1365	2×2.3	2×2.3	9.2
GDB149C/345M-ET GDB100C/345L-ET	380-3	1170	2.34	1365	4×2.3	2×2.3	13.8
GDB150E/345L-ET	380-3	1170	2.34	1365	6×2.3	2×2.3	18.4
GDB149B/445M-ET	380-3	1560	3.12	1365	2×3.0	2×3.1	12.2
GDB199C/445M-ET GDB133C/445L-ET	380-3	1560	3.12	1365	4×3.0	2×3.1	18.2
GDB189E/445L-ET	380-3	1560	3.12	1365	6×3.0	2×3.1	24.2



5、外形及安装尺寸 / Outline&installation dimension:

型号 Model	外形尺寸 Outline(mm)			安装尺寸 Install (mm)					接管规格 Connect pipe		
	L	W	H	A	B	B1	B2	B3	进口 Inlet	出口 Outlet	排水 Drain
GDB37B/145M-ET GDB50C/145M-ET GDB33C/145L-ET	1305	1130	405	1070	930	/	/	/	φ 28	φ 28	G1"
GDB50E/145L-ET	1305	1330	405	1270	930	/	/	/	φ 28	φ 28	G1"
GDB75B/245M-ET GDB100C/245M-ET GDB67C/245L-ET	2205	1130	405	1070	1830	930	/	/	φ 35	φ 35	G1"
GDB100E/245L-ET	2205	1330	405	1270	1830	930	/	/	φ 35	φ 35	G1"
GDB112B/345M-ET GDB149C/345M-ET GDB100C/345L-ET	3105	1130	405	1070	2730	930	1830	/	φ 42	φ 42	G1"
GDB150E/345L-ET	3105	1330	405	1270	2730	930	1830	/	φ 50	φ 50	G1"
GDB149B/445M-ET GDB199C/445M-ET GDB133C/445L-ET	4005	1130	405	1070	3630	930	1830	2730	φ 50	φ 50	G1"
GDB189E/445L-ET	4005	1330	405	1270	3630	930	1830	2730	φ 50	φ 50	G1"



**HC** 系列风冷冷凝器  
Series Air Cooled Condenser





# HC 系列风冷冷凝器 / HC Series Air cooled condenser

## 1、产品概述 / Product description:

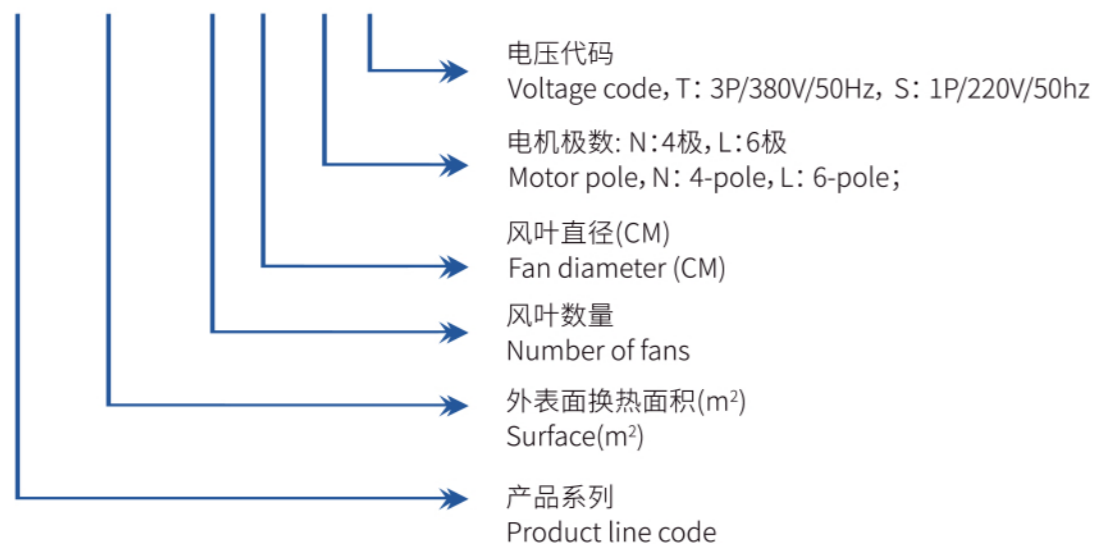
HC系列冷凝器主要配套以涡旋式压缩机、全封闭活塞式及半封闭活塞式压缩机为主机的敞开式冷凝机组使用, 冷凝器与压缩机安装在一起也可以与压缩机分开安装。

HC series air cooled condensers are mainly equipped with open-type condensing units with scroll compressor, hermetic & semi-hermetic compressor. This air cooled condensers and compressors can be installed together or separately from compressors. Design of High barrel with Side-mounted Structure.

- 采用带斜角面的侧装型结构及整体拉伸的高风筒设计;  
Condensers and compressors can be installed together or separately from compressors. Design of High barrel with Side-mounted Structure;
- 采用φ8.9铜管、波纹式铝片, 片距2.1mm;  
Copper tube and corrugated aluminium fins with a distance of 2.1 mm are used.
- 风机规格采用φ400、φ500及φ630外转子风机;  
Fan specifications adopt φ400mm, φ500mm and φ630mm.
- 试验压力32bar;  
Testing pressure 32bar;
- 外壳采用优质钢板表面喷塑白色或绿色;  
Adopt high-quality steel plate with powder coating RAL9003 or RAL6001.
- 可用于R22、R134a、R404A、R507A、R407A、R407C、R448A、R449A制冷剂;  
It can meet the requirements of R22, R134a, R404A, R507A, R407A, R407C, R448A, R449A and other refrigerants.
- 出厂保有1.5bar压力  
Retain 1.5bar pressure before leaving factory.

## 2、产品型号说明 / Model Explanation:

### HC 130 / 4 40 N T



## 3、性能数据表 / Performance data sheet:

型号 Model	换热量(KW) Δ T=15K Capacity	面积 Surface (m <sup>2</sup> )	管容积 Volume (dm <sup>3</sup> )	风机 Fan motor			噪音 dB (A) 10m	接管规格 (mm) Connect pipe		重量 Weight (kg)
				风量 (m <sup>3</sup> /h) Airflow	功率 (w) Power	电流(A) Current		进气 Inlet	出液 Outlet	
400mm 风机 Fan 400mm										
HC18/140NT	8.8	17.6	2.2	3800	240	0.52	50	φ16	φ12.7	27
HC26/140NT	11.8	26.3	3.3	3500	240	0.52	50	φ16	φ12.7	30
HC35/140NT	13.3	35.1	4.4	3100	240	0.52	50	φ16	φ12.7	33
HC35/240NT	17.5	35.1	4.3	7600	480	1.04	53	φ22	φ16	48
HC53/240NT	23.6	52.6	6.3	7000	480	1.04	53	φ22	φ16	53
HC70/240NT	26.6	70.2	8.3	6200	480	1.04	53	φ22	φ16	58
HC65/440NT	34.0	65.3	7.6	15200	960	2.08	56	φ28	φ22	69
HC98/440NT	43.9	97.7	11.6	14000	960	2.08	56	φ28	φ22	75
HC130/440NT	49.5	130.3	15.5	12400	960	2.08	56	φ28	φ22	81
500mm 风机 Fan 500mm										
HC33/150NT	17.5	33.4	4.2	7000	548	1.1	55	φ22	φ16	43
HC44/150NT	20.2	44.4	5.5	6700	548	1.1	55	φ22	φ16	46
HC56/150NT	23.3	55.5	6.8	6500	548	1.1	55	φ22	φ16	49
HC67/150NT	25.3	66.6	8.2	6200	548	1.1	55	φ22	φ16	53
HC65/250NT	34.4	64.9	7.6	14000	1096	2.2	58	φ28	φ22	71
HC86/250NT	38.9	86.4	10.2	13400	1096	2.2	58	φ28	φ22	78
HC108/250NT	45.3	107.9	12.8	13000	1096	2.2	58	φ28	φ22	85
HC130/250NT	49.2	129.5	15.3	12400	1096	2.2	58	φ28	φ22	91
HC122/450NT	64.5	121.7	14.4	28000	2192	4.4	61	φ42	φ35	130
HC162/450NT	72.9	162.0	19.2	26800	2192	4.4	61	φ42	φ35	142
HC202/450NT	86.0	202.4	24.0	26000	2192	4.4	61	φ42	φ35	154
HC243/450NT	93.6	242.9	28.7	24800	2192	4.4	61	φ42	φ35	166
630mm 风机 Fan 630mm										
HC59/163NT	27.1	59.0	7.2	10200	937	1.75	61	φ22	φ16	60
HC74/163NT	31.3	73.7	9.0	9900	937	1.75	61	φ22	φ16	65
HC89/163NT	34.5	88.5	10.8	9500	937	1.75	61	φ28	φ22	69
HC115/263NT	53.2	114.5	13.5	20400	1874	3.5	64	φ35	φ28	104
HC143/263NT	61.6	143.2	16.8	19800	1874	3.5	64	φ35	φ28	113
HC172/263NT	67.0	171.8	20.2	19000	1874	3.5	64	φ42	φ35	122
HC223/463NT	103.5	222.7	26.2	40800	3748	7.0	67	φ42	φ35	195
HC278/463NT	119.7	278.4	32.7	39600	3748	7.0	67	φ42	φ35	211
HC334/463NT	130.3	334.0	39.2	38000	3748	7.0	67	φ42	φ35	228

- 1 备注:
- 1) 换热量标定条件: 环境温度25°C、冷凝温度40°C、传热温差15k、制冷剂R404A, 其它工况的换热量参见冷凝器的选型说明。
  - 2) 噪音标定为10m距离的声压值
- Remarks:
1. Calibration conditions of heat transfer: ambient temperature 25 C, condensation temperature 40 C, heat transfer temperature difference 15k, refrigerant R404A. Heat transfer under other working conditions refer to the selection of condenser.
  2. Noise Calibration of Sound Pressure at 10m distance.



4、产品外形及安装尺寸 / Outline&installation dimension:

风机规格 Fan diameter	数量 Number	外形尺寸 Outline (mm)			安装尺寸 Install (mm)					图形 Drawing
		L	W	H	M	A	A×N	B	安装孔 Hole	
	1	775	420	730	135	275	275×2	280	φ 9	A
φ 400	2	1425	420	730	135	400	400×3	280	φ 9	B
	4	1425	420	1330	135	400	400×3	280	φ 9	C
φ 500	1	860	490	830	160	300	300×2	320	φ 9	A
	2	1540	490	830	155	430	430×3	320	φ 9	B
	4	1540	490	1530	155	430	430×3	320	φ 9	C
φ 630	1	975	520	930	155	370	370×2	320	φ 9	A
	2	1790	520	930	155	385	385×4	320	φ 9	B
	4	1790	520	1780	155	385	385×4	320	φ 9	C

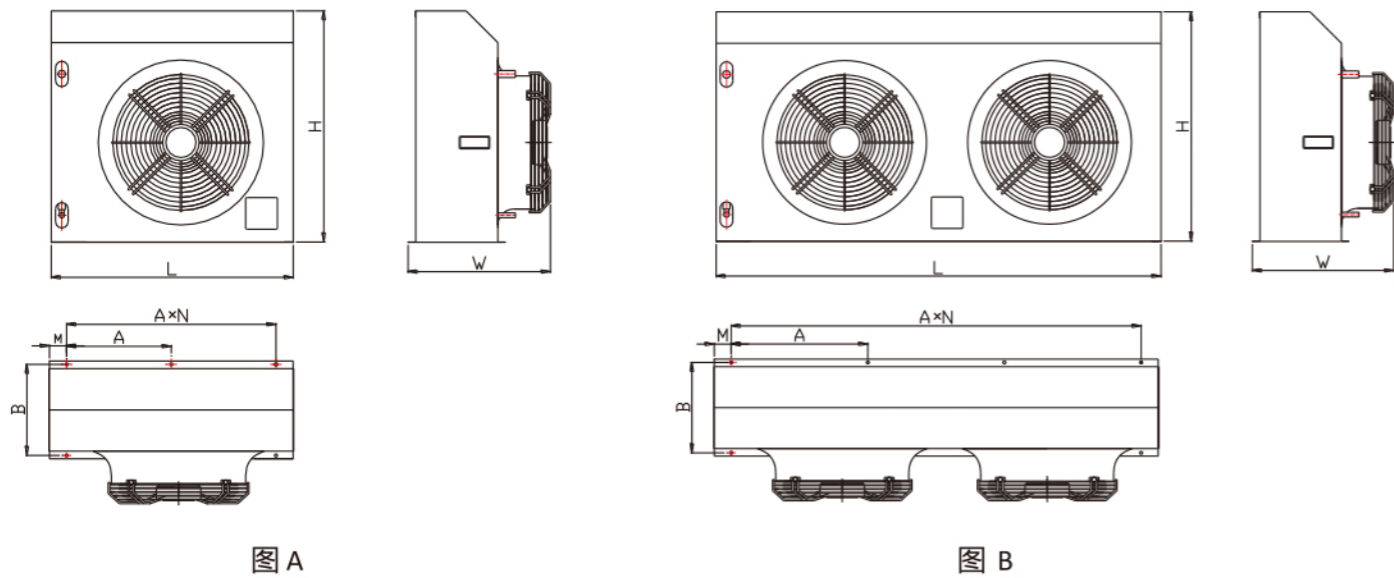


图 A

图 B

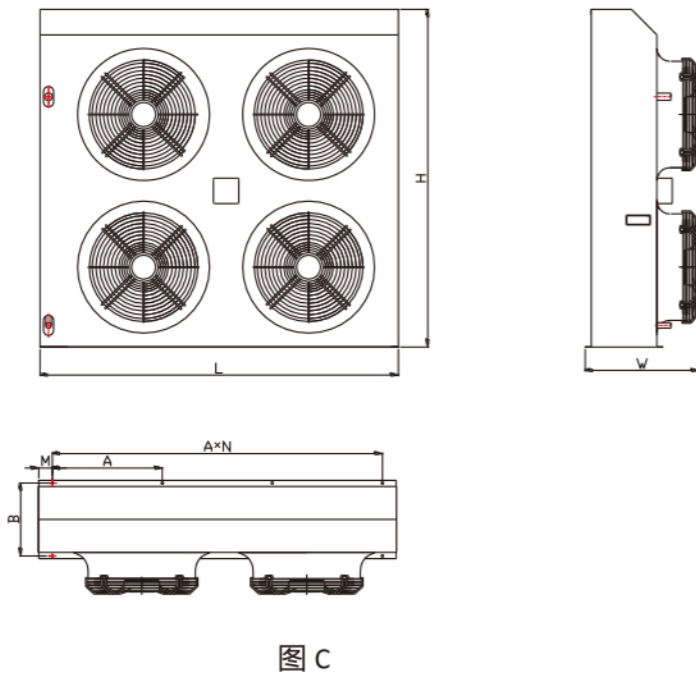


图 C



**RC** 系列风冷冷凝器  
Series Air cooled Condenser





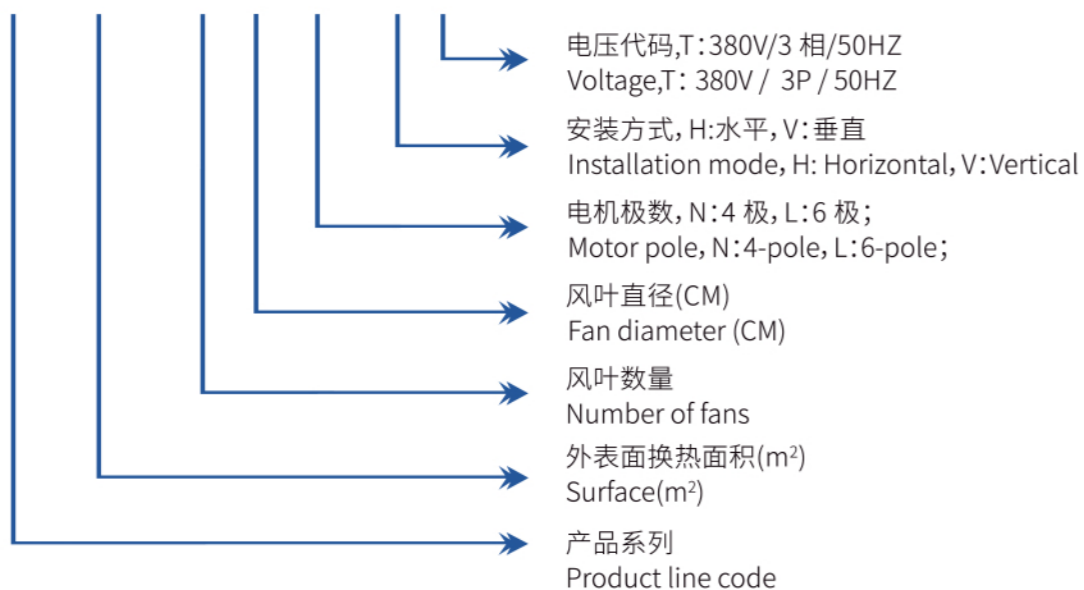
# RC 系列风冷冷凝器 / RC Series Air Cooled Condenser

## 1、产品概述 / Product description:

- RC系列冷凝器主要配套具有较大换热量需求的采用远置式安装的大匹数的冷凝机组、活塞并联机组及螺杆机组等使用；  
RC Series Condensers are mainly equipped with large heat transfer demand, large-scale remote-mounted condensing units, piston parallel units and screw units.
- 采用平板式结构设计,可采用水平安装或侧装的方式；  
Flat-plate structure design can be adopted, either horizontally installed or side-mounted.
- 采用φ8.9铜管、波纹式铝片,片距2.1mm；  
Copper tube and corrugated aluminium fins with a distance of 2.1 mm are used.
- 风机规格采用φ500及φ630,分4极和6极电机；  
Fan specifications adopt 500mm and 630mm, divided into 4-pole and 6-pole motor.
- 试验压力32bar；  
Testing pressure 32bar;
- 外壳采用优质钢板表面喷塑白色,防腐能力强；  
Adopt high-quality steel plate with powder coating RAL9003.
- 可用于R22、R134a、R404A、R507A、R407A、R407C、R448A、R449A制冷剂；  
It can meet the requirements of R22, R134a, R404A, R507A, R407A, R407C, R448A, R449A and other refrigerants.
- 出厂保有1.5bar压力  
Retain 1.5bar pressure before leaving factory.

## 2、产品型号说明 / Model Explanation:

### RC 223 / 4 50 N - H T



## 3、技术数据表 Technical data sheet :

### 3.1 500 风机系列

### 3.1 Fans 500 series

型号 Model	换热量(KW) Δ T=15K Capacity	面积 (m <sup>2</sup> ) Surface	管容积 (dm <sup>3</sup> ) Volume	风 机 Fan motor			噪音 dB (A) 10m	接管规格 Connect Pipe (mm)		重量 Weight (kg)
				风量 (m <sup>3</sup> /h) Airflow	功率 (w) Power	电流(A) Current		进气 Inlet	出液 Outlet	
4 极电机(转速: 1380rpm)4-pole motor (Rev. 1380rpm)										
RC37/150NT	21.3	37.1	4.5	7200	548	1.1	49	φ22	φ16	53
RC50/150NT	23.8	49.5	6.1	7000	548	1.1	49	φ28	φ22	57
RC74/250NT	42.6	74.2	8.8	14400	1096	2.2	52	φ35	φ28	102
RC99/250NT	47.5	98.9	11.7	14000	1096	2.2	52	φ35	φ28	109
RC111/350NT	64.0	111.3	13.0	21600	1644	3.3	53	φ35	φ28	152
RC148/350NT	71.2	148.4	17.4	21000	1644	3.3	53	φ35	φ28	163
RC148/450NT	85.3	148.4	17.4	28800	2192	4.4	55	φ42	φ35	201
RC198/450NT	94.4	197.8	23.0	28000	2192	4.4	55	φ42	φ35	215
RC186/550NT	106.7	185.5	21.6	36000	2740	5.5	56	φ50	φ42	251
RC247/550NT	118.7	247.3	28.7	35000	2740	5.5	56	φ50	φ42	270
RC223/650NT	128.0	222.6	26.1	43200	3288	6.6	57	φ67	φ50	300
RC297/650NT	142.5	296.8	34.8	42000	3288	6.6	57	φ67	φ50	325
RC297/850NT	170.7	296.8	34.8	57600	4384	8.8	58	φ67	φ50	400
RC396/850NT	190.4	395.7	46.1	56000	4384	8.8	58	φ67	φ50	430
6 极电机(转速: 930rpm) 6-pole motor (Rev. 930rpm)										
RC25/150LT	13.6	24.7	3.0	5000	257	0.69	39	φ22	φ16	49
RC37/150LT	15.5	37.1	4.5	4800	257	0.69	39	φ22	φ16	57
RC50/250LT	27.2	49.5	6.1	10000	514	1.38	42	φ28	φ22	95
RC74/250LT	31.2	74.2	8.8	9600	514	1.38	42	φ35	φ28	102
RC74/350LT	40.8	74.2	8.8	15000	771	2.07	43	φ28	φ22	141
RC111/350LT	46.7	111.3	13.0	14400	771	2.07	43	φ35	φ28	152
RC99/450LT	54.4	98.9	11.5	20000	1028	2.76	44	φ35	φ28	187
RC148/450LT	62.3	148.4	17.3	19200	1028	2.76	44	φ42	φ35	201
RC124/550LT	68.0	123.6	14.4	25000	1285	3.45	45	φ42	φ35	233
RC186/550LT	77.9	185.5	21.6	24000	1285	3.45	45	φ50	φ42	251
RC148/650LT	81.6	148.4	17.4	30000	1542	4.14	46	φ50	φ42	278
RC223/650LT	93.5	222.6	26.1	28800	1542	4.14	46	φ67	φ50	300
RC198/850LT	108.8	197.8	23.1	40000	2056	5.52	47	φ50	φ42	371
RC297/850LT	124.7	296.8	34.6	38400	2056	5.52	47	φ67	φ50	400

1 备注: 1.换热量标定条件:环境温度 25°C、冷凝温度 40°C、传热温差 15k、制冷剂 R404A, 其它工况的换热量参见冷凝器的选型说明。2.噪音标定为 10m 距离的声压值。

Remarks: 1.Calibration conditions of heat transfer: ambient temperature 25 C, condensation temperature 40 C, heat transfer temperature difference 15k, refrigerant R404A. Heat transfer under other working conditions refer to the selection of condenser. 2.Noise Calibration of Sound Pressure at 10m distance.



3.2 630 风机系列:  
3.2 Fan 630 series

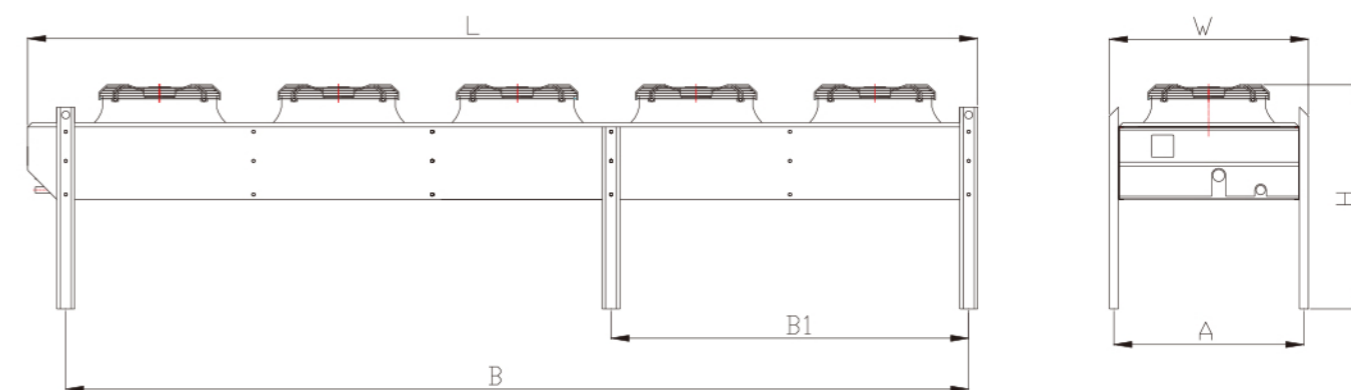
型号 Model	换热量 (KW) Δ T=15K Capacity	面积 (m <sup>2</sup> ) Surface	管容积 (dm <sup>3</sup> ) Volume	风 机 Fan motor			噪音 dB (A) 10m	接管规格 Connect Pipe (mm)		重量 Weight (kg)
				风量 (m3/h) Airflow	功率 (w) Power	电流 (A) Current		进气 Inlet	出液 Outlet	
4 极电机(转速: 1370rpm) 4-pole motor (Rev. 1370rpm)										
RC70/163NT	40.4	69.6	8.4	13600	1442	2.65	57	φ28	φ22	81
RC93/163NT	45.4	92.7	11.2	13500	1442	2.65	57	φ35	φ28	88
RC139/263NT	80.8	139.1	16.3	27200	2884	5.3	60	φ42	φ35	158
RC186/263NT	90.8	185.5	21.8	27000	2884	5.3	60	φ42	φ35	172
RC209/363NT	121.2	208.7	24.3	40800	4326	7.95	61	φ50	φ42	235
RC278/363NT	136.2	278.2	32.4	40500	4326	7.95	61	φ50	φ42	256
RC278/463NT	161.6	278.2	32.4	54400	5768	10.6	62	φ50	φ42	312
RC371/463NT	181.6	370.9	43.0	54000	5768	10.6	62	φ50	φ42	340
RC417/663NT	242.4	417.3	48.5	81000	8652	15.9	64	φ67	φ50	470
RC556/663NT	272.4	556.4	64.7	78000	8652	15.9	64	φ67	φ50	510
RC501/863NT	290.5	500.8	58.1	108000	11536	21.2	65	φ76	φ50	620
RC668/863NT	327.2	667.7	77.5	104000	11536	21.2	65	φ76	φ50	680
6 极电机 (转速 906rpm) 6-pole motor (Rev. 906rpm)										
RC46/163LT	25.5	46.4	5.6	11000	777	1.69	44	φ28	φ22	74
RC70/163LT	29.9	69.6	8.4	10900	777	1.69	44	φ28	φ22	81
RC93/263LT	51.0	92.7	11.2	22000	1554	3.38	47	φ35	φ28	144
RC139/263LT	59.8	139.1	16.3	21800	1554	3.38	47	φ42	φ35	158
RC139/363LT	76.5	139.1	16.3	33000	2331	5.07	48	φ42	φ35	213
RC209/363LT	89.7	208.7	24.3	32700	2331	5.07	48	φ50	φ42	235
RC186/463LT	102.0	185.5	21.5	44000	3108	6.76	49	φ50	φ42	282
RC278/463LT	119.6	278.2	32.4	43600	3108	6.76	49	φ50	φ42	312
RC278/663LT	153.0	278.2	32.4	65400	4662	10.14	51	φ50	φ42	430
RC417/663LT	179.4	417.3	48.5	60000	4662	10.14	51	φ67	φ50	470
RC334/863LT	183.6	333.8	38.7	87200	6216	13.52	52	φ67	φ50	570
RC501/863LT	215.3	500.8	58.1	80000	6216	13.52	52	φ76	φ50	620

- 1 备注:
- 1) 换热量标定条件:环境温度25°C、冷凝温度40°C、传热温差15k、制冷剂R404A,其它工况的换热量参见冷凝器的选型说明。
  - 2) 噪音标定为10m距离的声压值
- Remarks:
- 1) Calibration conditions of heat transfer: ambient temperature 25°C, condensation temperature 40°C, heat transfer temperature difference 15k, refrigerant R404A. Heat transfer under other working conditions refer to the selection of condenser .
  - 2) Noise Calibration of Sound Pressure at 10m distance.

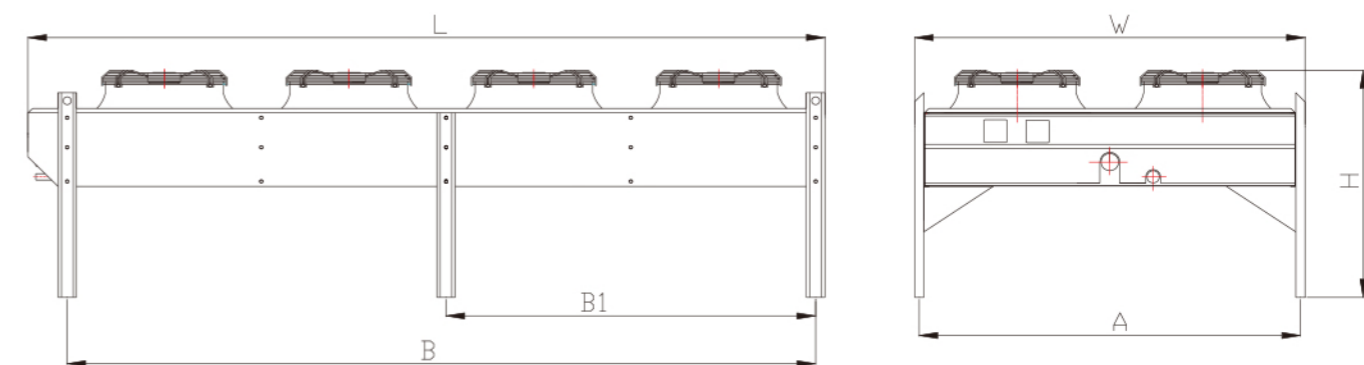
4. 产品外形及安装尺寸 / Outline&installation dimension:

4.1 水平安装方式 (H)  
4.1 Horizontal Installation(H)

尺寸 size (mm)	风机数量 Number of fan							
	1	2	3	4	5	6	8	
φ 500	L	1050	1850	2650	3450	4250	2650	3450
	W	890	890	890	890	890	1690	1690
	H	1000	1000	1000	1000	1000	1000	1000
	A	850	850	850	850	850	1650	1650
	B	840	1640	2440	3240	4040	2440	3240
	B1	/	/	/	1600	1600	1600	1600
	φ 630	L	1450	2650	3850	5050	/	4250
W		1090	1090	1090	1090	/	1890	1890
H		1070	1070	1070	1070	/	1070	1070
A		1050	1050	1050	1050	/	1850	1850
B		1240	2440	3640	4840	/	4040	4840
B1		/	/	2400	2400	/	1200	2400
图形 Drawing		A						B



图形 A (单排风机) Drawing A (single row fan)

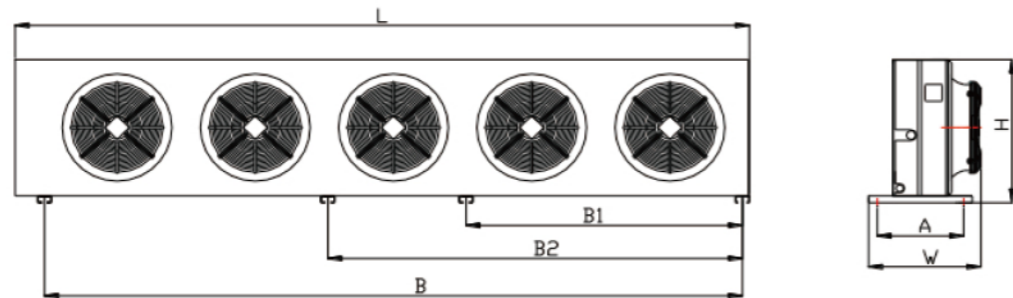


图形 B (双排风机) Drawing B (double row fan)

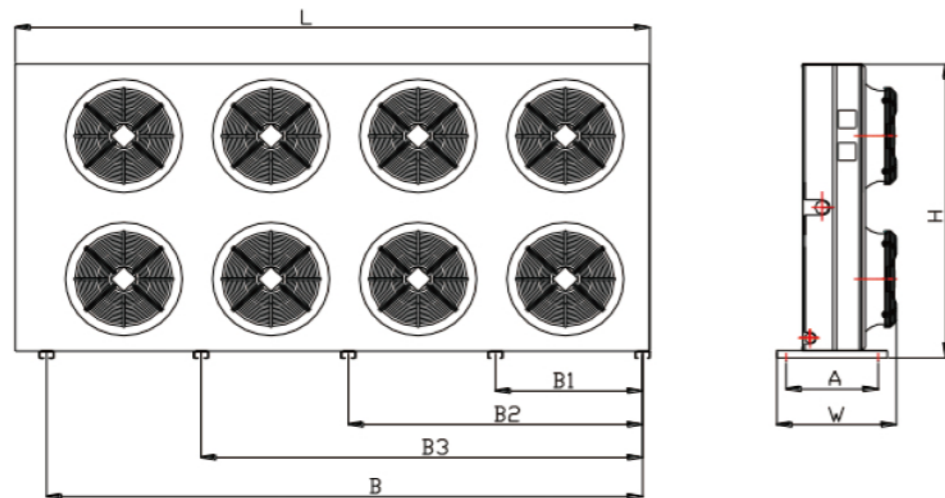


4.2 垂直安装方式 (V)  
4.2 Vertical Installation (V)

尺寸 Size (mm)		风机数量 Number of fan						
		1	2	3	4	5	6	8
φ 500	L	1050	1850	2650	3450	4250	2650	3450
	W	650	650	650	650	650	650	650
	H	850	850	850	850	850	1650	1650
	A	500	500	500	500	500	500	500
	B	840	1640	2440	3240	4040	2440	3240
	B1	/	/	1600	1600	1600	800	800
	B2	/	/	/	/	2400	1600	1600
	B3	/	/	/	/	/	/	2400
φ 630	L	1450	2650	3850	5050	/	4250	5050
	W	650	650	650	650	/	650	650
	H	1050	1050	1050	1050	/	1850	1850
	A	540	540	540	540	/	540	540
	B	1240	2440	3640	4840	/	6040	4840
	B1	/	/	2400	2400	/	1200	1200
	B2	/	/	/	/	/	2400	2400
	B3	/	/	/	/	/	/	3600
图形 Drawing		A					B	



图形 A (单排风机) Drawing A(single row fan)



图形 B (双排风机) Drawing B(double row fan)



**RVC** 系列风冷冷凝器  
Series Air Cooled Condenser





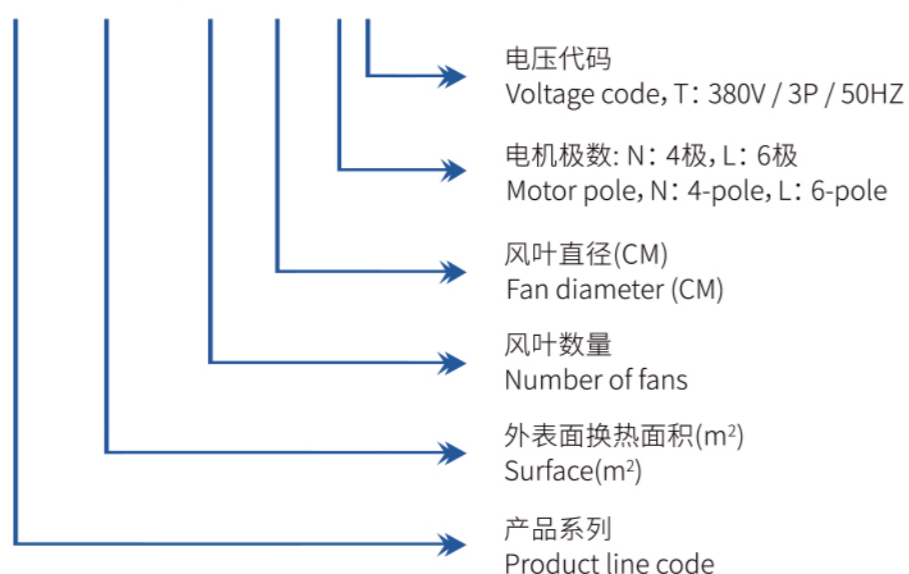
# RVC 系列风冷冷凝器 / RVC Series Air Cooled Condenser

## 1、产品概述 / Product description:

- RVC系列冷凝器主要配套具有较大换热量需求的采用远置式安装的大匹数的冷凝机组、活塞并联机组及螺杆机组等使用；  
RVC series condensers are mainly equipped with large heat transfer demand, large-scale remote-mounted condensing units, piston parallel units and screw units.
- 采用V型结构设计,迎风面大；  
V-type structure design can be adopted, having larger windward area.
- 采用φ8.9铜管、波纹铝片,片距2.1mm；  
Copper tube and corrugated aluminium fins with a distance of 2.1 mm are used.
- 风机规格采用φ500及φ630,分4极和6极电机；  
Fan specifications adopt 500mm and 630mm, divided into 4 poles and 6 poles motor.
- 试验压力32bar；  
Testing pressure 32bar;
- 外壳采用优质钢板表面喷塑,防腐能力强；  
Adopt high-quality steel plate with powder coating.
- 可用于R22、R134a、R404A、R507A、R407A、R407C、R448A、R449A制冷剂；  
It can meet the requirements of R22, R134a, R404A, R507A, R407A, R407C, R448A, R449A and other refrigerants.
- 出厂保有1.5bar压力  
Retain 1.5bar pressure before leaving factory.

## 2、产品型号说明 / Model Explanation:

### RVC 223 / 4 50 N T



## 3、技术数据表 Technical data sheet :

### 3.1 500 风机系列:

#### 3.1 Fans 500

型号 Model	换热量(KW) ΔT=15K Capacity	换热面积 (m <sup>2</sup> ) Surface	管容积 (dm <sup>3</sup> ) Volume	风机 Fan			噪音 dB(A) 10m	接管规格 Connect Pipe (mm)		重量 Weight (kg)
				风量 m <sup>3</sup> /h Airflow	功率 W Power	电流 A Current		进气 Inlet	出液 outlet	
4 极电机 (转速: 1380rpm) 4-pole motor(Rev.1380rpm)										
RVC125/250N	52.6	125.2	14.8	13400	1100	2.2	55	2×φ28	2×φ22	166
RVC157/250N	59.5	156.5	18.5	13200	1100	2.2	55	2×φ28	2×φ22	175
RVC188/350N	78.9	187.8	22.0	20100	1650	3.3	56	2×φ28	2×φ22	247
RVC235/350N	89.2	234.7	27.5	19800	1650	3.3	56	2×φ28	2×φ22	261
RVC250/450N	105.2	250.4	29.2	26800	2200	4.4	58	2×φ35	2×φ22	330
RVC313/450N	118.9	313.0	36.5	26400	2200	4.4	58	2×φ35	2×φ22	349
RVC313/550N	131.5	313.0	36.5	33500	2750	5.5	59	2×φ35	2×φ22	410
RVC391/550N	148.7	391.2	45.4	33000	2750	5.5	59	2×φ35	2×φ22	433
6 极电机(转速:930rpm)6-pole motor(Rev.930rpm)										
RVC125/250L	39.5	125.2	14.8	9600	514	1.4	45	2×φ28	2×φ22	166
RVC157/250L	45.4	156.5	18.5	9000	514	1.4	45	2×φ28	2×φ22	175
RVC188/350L	60.1	187.8	22.0	14400	770	2.1	46	2×φ28	2×φ22	247
RVC235/350L	68.1	234.7	27.5	13500	770	2.1	46	2×φ28	2×φ22	261
RVC250/450L	80.1	250.4	29.2	19200	1028	2.8	47	2×φ35	2×φ22	330
RVC313/450L	90.8	313.0	36.5	18000	1028	2.8	47	2×φ35	2×φ22	349
RVC313/550L	100.2	313.0	36.5	24000	1285	3.5	48	2×φ35	2×φ22	410
RVC391/550L	113.5	391.2	45.4	22500	1285	3.5	48	2×φ35	2×φ22	433

### 1 备注:

- 1) 换热量标定条件:环境温度25°C、冷凝温度40°C、传热温差15k、制冷剂R404A,其它工况的换热量参见冷凝器的选型说明。
- 2) 噪音标定为10m距离的声压值

### Remarks:

- 1) Calibration conditions of heat transfer: ambient temperature 25°C, condensation temperature 40°C, heat transfer temperature difference 15k, refrigerant R404A. Heat transfer under other working conditions refer to the selection of condenser .
- 2) Noise Calibration of Sound Pressure at 10m distance.



3.2 630 风机系列  
3.2 Fan 630

型号 Model	换热量(KW) ΔT=15K Capacity	换热面积 (m <sup>2</sup> ) Surface	管容积 (dm <sup>3</sup> ) Volume	风机 Fan			噪音 dB(A) 10m	接管规格 Connect Pipe (mm)		重量 Weight (kg)
				风量 m <sup>3</sup> /h Airflow	功率 W Power	电流 A Current		进气 Inlet	出液 outlet	
4 极电机 (转速: 1370rpm) 4-pole motor(Rev.1370rpm)										
RVC167/263N	75.1	166.9	19.8	27000	2884	5.3	63	2×φ28	2×φ22	195
RVC209/263N	87.7	208.7	24.7	26400	2884	5.3	63	2×φ28	2×φ22	207
RVC250/263N	95.2	250.4	29.6	26000	2884	5.3	63	2×φ28	2×φ22	220
RVC250/363N	112.6	250.4	29.6	40500	4326	7.95	64	2×φ35	2×φ22	290
RVC313/363N	131.5	313.0	36.6	39600	4326	7.95	64	2×φ35	2×φ22	308
RVC376/363N	142.7	375.6	43.9	39000	4326	7.95	64	2×φ35	2×φ22	326
RVC334/463N	150.2	333.8	38.9	54000	5768	10.6	65	2×φ42	2×φ28	375
RVC417/463N	175.3	417.3	48.6	52800	5768	10.6	65	2×φ42	2×φ28	399
RVC501/463N	190.3	500.8	58.3	52000	5768	10.6	65	2×φ42	2×φ28	423
RVC417/563N	187.8	417.3	48.6	67500	7210	13.25	66	2×φ50	2×φ35	475
RVC522/563N	219.1	521.6	60.6	66000	7210	13.25	66	2×φ50	2×φ35	505
RVC626/563N	237.9	626.0	72.8	65000	7210	13.25	66	2×φ50	2×φ35	535
6 极电机 (转速 906rpm)										
RVC167/263L	56.7	166.9	19.8	21600	1554	3.4	50	2×φ28	2×φ22	195
RVC209/263L	66.8	208.7	24.7	20800	1554	3.4	50	2×φ28	2×φ22	207
RVC250/263L	72.6	250.4	29.6	19800	1554	3.4	50	2×φ28	2×φ22	220
RVC250/363L	85.1	250.4	29.6	32400	2331	5.1	51	2×φ35	2×φ22	290
RVC313/363L	100.2	313.0	36.6	31200	2332	5.1	51	2×φ35	2×φ22	308
RVC376/363L	108.9	375.6	43.9	29700	2332	5.1	51	2×φ35	2×φ22	326
RVC334/463L	113.5	333.8	38.9	43200	3108	6.8	52	2×φ42	2×φ28	375
RVC417/463L	133.5	417.3	48.6	41600	3108	6.8	52	2×φ42	2×φ28	399
RVC501/463L	145.2	500.8	58.3	39600	3108	6.8	52	2×φ42	2×φ28	423
RVC417/563L	142.0	417.3	48.6	54000	3885	8.5	53	2×φ50	2×φ35	475
RVC522/563L	166.9	521.6	60.6	52000	3885	8.5	53	2×φ50	2×φ35	505
RVC626/563L	181.5	626.0	72.8	49500	3885	8.5	53	2×φ50	2×φ35	535

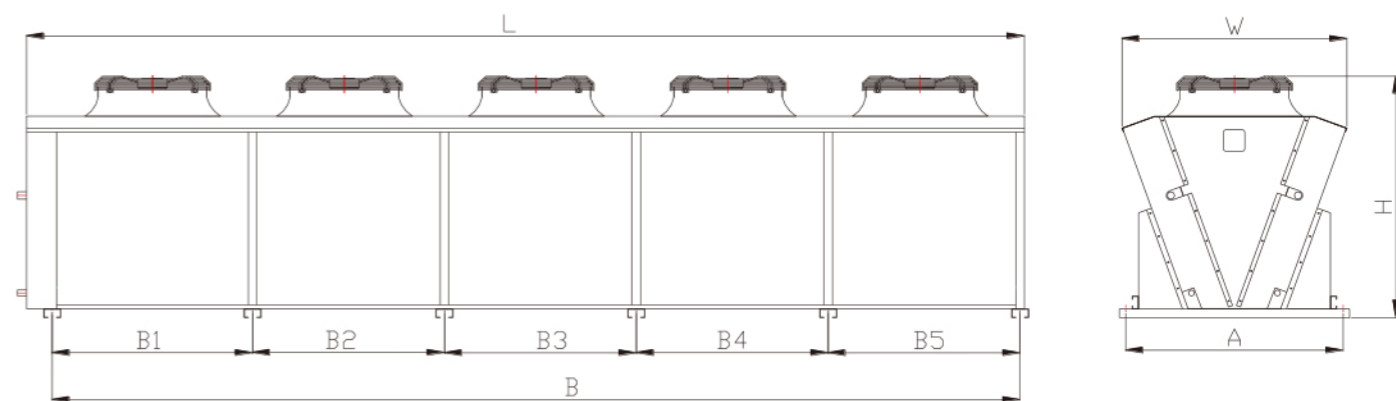
- 1 备注:
- 1) 换热量标定条件:环境温度25°C、冷凝温度40°C、传热温差15k、制冷剂R404A, 其它工况的换热量参见冷凝器的选型说明。
  - 2) 噪音标定为10m距离的声压值

Remarks:

- 1) Calibration conditions of heat transfer: ambient temperature 25°C, condensation temperature 40°C, heat transfer temperature difference 15k, refrigerant R404A. Heat transfer under other working conditions refer to the selection of condenser .
- 2) Noise Calibration of Sound Pressure at 10m distance.

4、产品外形及安装尺寸 / Outline&installation dimension:

尺寸 Size (mm)	风机数量 Number of fan				
	2	3	4	5	
φ 500	L	1980	2880	3780	4680
	W	1080	1080	1080	1080
	H	1130	1130	1130	1130
	A	1020	1020	1020	1020
	B	1840	2740	3640	4540
	B1	940	940	940	940
	B2	900	900	900	900
	B3	/	900	900	900
	B4	/	/	900	900
	B5	/	/	/	900
φ 630	L	1980	2880	3780	4680
	W	1260	1260	1260	1260
	H	1425	1425	1425	1425
	A	1200	1200	1200	1200
	B	1840	2740	3640	4540
	B1	940	940	940	940
	B2	900	900	900	900
	B3	/	900	900	900
	B4	/	/	900	900
	B5	/	/	/	900





## 冷风机选型指南

冷风机的选用应根据所需要的制冷量、库温、传热温差、制冷剂及所使用的场合来合理选用。

### ▲ 选型举例如下:

某冷库所需要的冷风机制冷量为Q=10kw、库温要求2°C、制冷剂为R404A,用于果蔬保鲜,要求采用亲水铝箔。

### ▲ 选型步骤如下:

#### ① 根据制冷系统设计的蒸发温度确定传热温差(ΔT): ΔT=Tc-Te (Tc:库温、Te:蒸发温度)

库温、蒸发温度、传热温差对应关系可参照下表:

库温	10°C	0°C	-18°C	-25°C	-35°C
推荐蒸发温度	0°C	-8°C	-25°C	-31°C	-41°C
传热温差	10K	8K	7K	6K	6K

比如设计的蒸发温度为-8°C,库温要求2°C,则ΔT=2-(-8)=10K;

#### ② 确定所需要的名义制冷量Q<sub>0</sub>

$$Q_0 = Q / (K1 \times K2 \times K3)$$

式中:Q—冷风机所需要的制冷量(KW);

K1—名义制冷量修正系数,见下表;

K2—制冷剂修正系数,见下表

K3—翅片材料修正系数,见下表

则所需要的名义制冷量为:Q<sub>0</sub> = 10 / (1.34 × 1.0 × 0.97) = 7.7KW

K1:温差修正系数表(基于蒸发温度-8°C、库温0°C、传热温差8K的名义制冷量):

Δ T (K)	库温 (°C)															
	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4	5	6	8	10
4	0.44	0.44	0.44	0.45	0.46	0.48	0.49	0.5	0.52	0.54	0.55	0.57	0.59	0.59	0.59	0.59
5	0.54	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.65	0.67	0.69	0.71	0.73	0.73	0.73	0.73
6	0.65	0.65	0.66	0.68	0.70	0.71	0.73	0.75	0.78	0.80	0.83	0.85	0.88	0.88	0.88	0.88
7	0.76	0.76	0.77	0.79	0.81	0.83	0.85	0.87	0.90	0.94	0.97	1.0	1.03	1.03	1.03	1.03
8	0.87	0.87	0.88	0.90	0.93	0.95	0.98	1.00	1.04	1.07	1.10	1.14	1.17	1.17	1.17	1.17
9	0.98	0.98	0.99	1.02	1.04	1.07	1.10	1.13	1.16	1.20	1.24	1.28	1.32	1.32	1.32	1.32
10	1.09	1.09	1.10	1.13	1.16	1.19	1.22	1.25	1.29	1.34	1.38	1.42	1.47	1.47	1.47	1.47

K2:制冷剂修正系数表:

制冷剂 Refrigerant	库温 (°C) Cold room temp.																
	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4	5	6	8	10	12
R404A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R507A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R134a	-	-	-	-	0.86	0.88	0.89	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93	0.93
R22	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95

K3:翅片材料修正系数

翅片材料	修正系数
光铝箔	1.0
镀膜铝箔	0.97

#### ③ 选择冷风机的型式和片距规格:冷风机的片距可参照下表选用:

库温	0-15°C	-5~-20°C	-23~-28°C	-30~-35°C
推荐片距	4.2mm	6.4mm	9.0mm	12.0mm

该冷风机用于果蔬保鲜库,根据库温2°C,可选用4.2mm的片距,如果选用CS系列的冷风机,根据CS系列冷风机的冷量参数表(Tc=0°C,ΔT=8K)的名义制冷量,可选用:CS31/330M(名义冷量7.89KW)

## Selection Guide for Unit Coolers

The selection of unit cooler should be based on the required refrigeration capacity, storage temperature, heat transfer temperature difference, refrigerant and the occasion used.

### ▲ Examples of selection are as follows:

Example:The refrigeration capacity of a cold storage is 10kw, the storage temperature is 2°C, and the refrigerant is R404A. It is used for fresh-keeping of fruits and vegetables, and epoxy coatedaluminium fins is required.

### ▲ The selection steps are as follows:

#### ① According to the evaporation temperature of refrigeration system design, Determine the heat transfer temperature difference (ΔT): ΔT= Tc-Te (Tc: storage temperature, Te: evaporation temperature)

For example, the designed evaporation temperature is - 8°C, if the temperature of the storage is required to be 2°C,thenΔT=2-(-8)=10K.

#### ② Determine the nominal refrigeration capacity required Q<sub>0</sub>:

$$Q_0 = Q / (K1 \times K2 \times K3)$$

Formula:Q—The actual cooling capacity of the required air cooler (KW);

K1—Nominal refrigeration capacity correction coefficient. See table below;

K2—Refrigerant correction factor. See table below;

K3—Correction Coefficient of Fin Material. See table below;

So the nominal refrigeration capacity required is:Q<sub>0</sub>= 10 / (1.34 × 1.0 × 0.97) = 7.7KW

K1:Refrigeration correction coefficient table (nominal refrigeration capacity based on evaporation temp.- 8°C, storage temp. 0°C, heat transfer temp. difference 8K)

Δ T (K)	Cold room temp. (°C)															
	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4	5	6	8	10
4	0.44	0.44	0.44	0.45	0.46	0.48	0.49	0.5	0.52	0.54	0.55	0.57	0.59	0.59	0.59	0.59
5	0.54	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.65	0.67	0.69	0.71	0.73	0.73	0.73	0.73
6	0.65	0.65	0.66	0.68	0.70	0.71	0.73	0.75	0.78	0.80	0.83	0.85	0.88	0.88	0.88	0.88
7	0.76	0.76	0.77	0.79	0.81	0.83	0.85	0.87	0.90	0.94	0.97	1.0	1.03	1.03	1.03	1.03
8	0.87	0.87	0.88	0.90	0.93	0.95	0.98	1.00	1.04	1.07	1.10	1.14	1.17	1.17	1.17	1.17
9	0.98	0.98	0.99	1.02	1.04	1.07	1.10	1.13	1.16	1.20	1.24	1.28	1.32	1.32	1.32	1.32
10	1.09	1.09	1.10	1.13	1.16	1.19	1.22	1.25	1.29	1.34	1.38	1.42	1.47	1.47	1.47	1.47

K2: Refrigerant correction factor table

Refrigerant	Cold room temp. (°C)																
	-35	-30	-25	-20	-15	-10	-5	0	1	2	3	4	5	6	8	10	12
R404A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R507A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
R134a	-	-	-	-	0.86	0.88	0.89	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.93	0.93	0.93
R22	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95

K3: Correction Coefficient of fin material table

Fin Material	修正系数
Aluminum	1.0
Epoxy coated Aluminum	0.97

#### ③ Selection of type and fins spacing of air cooler

The unit cooler used in fresh storage of fruits and vegetables, so CS series unit cooler can be selected. According to the storage temperature of 2°C, 4.2mm fins space can be selected (generally, 4.2mm space is selected for storage temp. above -2°C, 6.4mm fins space is selected for storage temp.of - 15~- 20°C, and 9.0mm space is selected for storage temp. below - 25°C).

So according to the nominal capacity of the data sheet (Tc=0°C,ΔT=8K),CS31/330M (nominal capacity 7.89KW) can be selected.



# 主要品牌压缩机与冷风机配套选型表

## Matching Selection for Compressor and Unit Coolers

### 1. 中温应用 (库温-2~5°C) Application of medium temp. (Cold room - 2 ~ 5°C)

#### 1.1 艾默生涡旋压缩机系列

#### 1.1 Series of Emerson's scroll compressors

压缩机 Compressor		制冷量 Capa. (KW) (-8°C/45°C/R404A)	CS 系列冷风机 CS Series Unit Cooler			
型号 Model	名义功率 HP		300 风机 Fan	400 风机 Fan	500 风机 Fan	630 风机 Fan
ZB15KQE	2HP	3.3	CS14/130M	CS27/140M		
ZB21KQE	3HP	5.0	CS21/230M	CS36/140M		
ZB29KQE	4HP	6.9	CS31/330M	CS36/240M		
ZB38KQE	5HP	8.7	CS42/330M	CS54/240M	CS58/150M	
ZB45KQE	6HP	10.2	CS42/430M	CS72/240M	CS73/150M	
ZB58KQE	8HP	13.5		CS83/340M	CS87/150M	
ZB76KQE	10HP	18.0		CS108/440M	CS116/250M	CS125/163M
ZB95KQE	13HP	22.1		CS144/440M	CS145/250M	CS150/163M
ZB114KQE	15HP	26.2		CS180/540M	CS174/250M	CS199/263M
ZB130KQE	20HP	28.6			CS174/350M	CS199/263M
ZB150KQE	22HP	34.7			CS261/350M	CS249/263M
ZB190KQE	25HP	43.5			CS290/450M	CS299/363M

#### 1.2 比泽尔半封闭压缩机系列

#### 1.2 Series of Bitzer semi-hemertic compressor

压缩机 Compressor		制冷量 Capa. (KW) (-8°C/45°C/R404A)	CS 系列冷风机 CS Series Unit Cooler			
型号 Model	名义功率 HP		300 风机 Fan	400 风机 Fan	500 风机 Fan	630 风机 Fan
2HES-2Y	2HP	3.1	CS14/130M			
2FES-3Y	3HP	4.4	CS21/230M	CS27/140M		
2EES-3Y	3HP	5.7	CS28/230M	CS36/140M		
2DES-3Y	3HP	6.8	CS31/330M	CS36/240M		
2CES-4Y	4HP	8.4	CS42/330M	CS54/240M		
4FES-5Y	5HP	9.1	CS42/330M	CS54/240M	CS58/150M	
4EES-6Y	6HP	11.4	CS56/430M	CS72/240M	CS87/150M	
4DES-7Y	7HP	13.8		CS83/340M	CS87/150M	CS100/163M
4CES-9Y	9HP	16.7		CS110/340M	CS116/250M	CS125/163M
4TES-12Y	12HP	21.0		CS144/440M	CS145/250M	CS150/163M
4PES-15Y	15HP	23.9		CS180/540M	CS174/250M	CS199/263M
4NES-20Y	20HP	28.7			CS174/350M	CS199/263M
4HE-25Y	25HP	38.1			CS232/450M	CS249/263M
4GE-30Y	30HP	43.7			CS290/450M	CS299/363M
4FE-35Y	35HP	52.5				CS373/363M
6HE-35Y	35HP	55.9				CS448/363M

#### 1.3 富士豪半封闭压缩机系列

#### 1.3 Series of Frascold semi-hemertic compressor

压缩机 Compressor		制冷量 Capa.(KW) (-8°C/45°C/R404A)	冷风机 (CS 系列) CS Series Unit Cooler			
型号 Model	名义功率 HP		300 风机 Fan	400 风机 Fan	500 风机 Fan	630 风机 Fan
D3-13.1Y	3HP	6.6	CS31/330M	CS36/240M		
D4-18.1Y	4HP	9.2	CS42/330M	CS54/240M	CS58/150M	
Q5-24.1Y	5HP	11.8	CS56/430M	CS72/240M	CS87/150M	
Q7-33.1Y	7HP	16.5		CS110/340M	CS116/250M	CS100/163M
S12-42Y	12HP	20.2		CS144/440M	CS145/250M	CS150/163M
S15-52Y	15HP	27.0		CS180/540M	CS174/350M	CS199/263M
S20-56Y	20HP	29.5			CS174/350M	CS199/263M
V25-71Y	25HP	35.6			CS261/350M	CS249/263M
V30-84Y	30HP	43.0			CS290/450M	CS299/363M
V35-103Y	35HP	51.3				CS373/363M
Z40-126Y	40HP	63.0				CS448/363M
Z50-154Y	50HP	77.7				

1 备注：选型是基于R404A制冷剂，库温为0°C、传热温差8K；

Note: The selection is based on R404A refrigerant, the storage temp. is 0°C and the heat transfer temperature difference is 8K.

### 2. 低温应用 (库温-18°C) Application of Low Temp. (Cold room -18°C)

#### 2.1 艾默生涡旋压缩机系列

#### 2.1 Series of Emerson's scroll compressors

压缩机 Copressor		制冷量 Capa.(KW) (-25°C/45°C/R404A)	CS 系列冷风机 CS Series Unit Cooler			
型号 Model	名义功率 HP		300 风机 Fan	400 风机 Fan	500 风机 Fan	630 风机 Fan
ZSI06KQE	2HP	1.6	CS10/130L			
ZSI09KQE	3HP	2.3	CS14/230L	CS18/140L		
ZSI11KQE	4HP	2.9	CS14/230L	CS24/140L		
ZSI15KQE	5HP	4.2	CS21/330L	CS24/240L		
ZSI18KQE	6HP	5.2	CS28/330L	CS36/240L		
ZSI21KQE	7HP	5.8	CS28/330L	CS48/240L	CS39/150L	
ZFI26KQE	6HP	8.2		CS56/340L	CS58/150L	
ZFI36KQE	8HP	10.4		CS74/340L	CS78/250L	
ZFI39KQE	10HP	11.9		CS96/440L	CS78/250L	CS83/163L
ZFI50KQE	12HP	14.0		CS120/540L	CS97/250L	CS100/163L
ZFI59KQE	15HP	17.0			CS117/250L	CS133/263L
ZFI68KQE	18HP	19.2			CS117/350L	CS133/263L



## 冷凝器选型指南

### 2.2 比泽尔半封闭压缩机系列

#### 2.2 Series of Bitzer semi-hermetic compressor

压缩机 Compressor		制冷量 Capa.(KW) (-25°C/45°C/R404A)	CS 系列冷风机 CS Series Unit Cooler			
型号 Model	名义功率 HP		300 风机 Fan	400 风机 Fan	500 风机 Fan	630 风机 Fan
2DES-2Y	2HP	2.9	CS14/230L	CS24/140L		
4FES-3Y	3HP	3.9	CS19/230L	CS24/240L		
4EES-4Y	4HP	4.9	CS28/330L	CS36/240L		
4DES-5Y	5HP	5.9	CS28/430L	CS48/240L	CS39/150L	
4CES-6Y	6HP	7.0	CS38/430L	CS56/340L	CS49/150L	
4TES-9Y	9HP	8.6		CS74/340L	CS58/150L	
4PES-12Y	12HP	9.5		CS74/340L	CS78/250L	CS67/163L
4NES-14Y	14HP	11.7		CS96/440L	CS78/250L	CS83/163L
4HE-18Y	18HP	16.7		CS120/540L	CS117/250L	CS133/263L
4GE-23Y	23HP	19.7			CS117/350L	CS133/263L
4FE-28Y	28HP	23.5			CS146/350L	CS167/263L
6HE-28Y	28HP	24.6			CS175/350L	CS167/263L
6GE-34Y	34HP	29.7			CS195/450L	CS200/363L
6FE-44Y	44HP	35.3			CS234/450L	CS250/363L

### 2.3 富士豪半封闭压缩机系列

#### 2.3 Series of Frascold semi-hermetic compressor

压缩机 Compressor		制冷量 Capa.(KW) (-25°C/45°C/R404A)	CS 系列冷风机 CS Series Unit Cooler			
型号 Model	名义功率 HP		300 风机 Fan	400 风机 Fan	500 风机 Fan	630 风机 Fan
D2-13.1Y	2HP	2.9	CS14/230L	CS24/140L		
D3-18.1Y	3HP	4.1	CS19/230L	CS24/240L		
Q4-24.1Y	4HP	4.9	CS21/330L	CS36/240L	CS39/150L	
Q5-33.1Y	5HP	7.4	CS38/430L	CS56/340L	CS49/150L	
S8-42Y	8HP	9.5		CS74/340L	CS58/150L	CS67/163L
S10-52Y	10HP	12.0		CS96/440L	CS78/250L	CS83/163L
S15-56Y	15HP	13.3		CS96/440L	CS78/250L	CS100/163L
V15-71Y	15HP	16.3		CS120/540L	CS117/250L	
V20-84Y	20HP	18.4			CS117/350L	CS133/263L
V25-103Y	25HP	22.6			CS146/350L	CS167/263L
Z25-106Y	25HP	23.4			CS146/350L	CS167/263L
Z30-126Y	30HP	27.1			CS156/450L	CS200/263L
Z40-154Y	40HP	36.3			CS234/450L	CS250/363L

1 备注：选型是基于R404A制冷剂，库温-18°C、温差7K。

Remarks: Selection is based on R404A refrigerant, storage temperature - 18°C, temperature difference 7K

2 说明：此选型表仅作冷风机的简单配套选型参考！用户应根据具体的设计合理选型，以免造成选型偏差！

Note: This selection table is only for the simple matching selection reference of the unit cooler. Users should choose the right type according to the specific design, so as not to cause the selection deviation.

▲ 按照如下步骤来选择冷凝器：

1 确定在设计工况下所需要的冷凝器的换热量(冷凝负荷)：

可通过如下两种方法来确定冷凝器的冷凝负荷：

1.1根据公式 $Q_c = Q_o + P_e$ 计算：

式中  $Q_c$  — 冷凝负荷 (KW)；

$Q_o$  — 设计工况下的制冷量 (KW)；

$P_e$  — 设计工况下压缩机的输入功率 (KW)；

比如：一台FRASCOLD Z50-154Y (50HP) 的半封闭压缩机，设计工况为蒸发温度-5°C、冷凝温度45°C、制冷剂R404A，根据压缩机的资料或选型软件，可查得在该设计工况下，压缩机制冷量为88.7kw、输入功率为37.3kw，则需要的冷凝负荷为： $Q_c = 88.7 + 37.3 = 126kw$ 。

1.2根据公式 $Q_c = Q_o \times F_c$  计算：

式中： $F_c$  — 冷凝负荷系数，见表 $F_c$

$F_c$ 表(全封闭及半封闭压缩机冷凝负荷系数表)：

冷凝温度 (°C) Cond. Temp. (°C)	蒸发温度 (°C) Evaporating Temp. (°C)									
	-40	-35	-30	-25	-20	-15	-10	-5	0	5
30	1.72	1.65	1.50	1.44	1.40	1.35	1.31	1.27	1.24	1.20
35	1.80	1.72	1.57	1.50	1.45	1.40	1.36	1.32	1.28	1.24
40	1.89	1.80	1.65	1.57	1.51	1.45	1.41	1.36	1.32	1.28
45	1.99	1.90	1.74	1.65	1.58	1.52	1.47	1.42	1.37	1.33
50	2.10	2.01	1.86	1.75	1.67	1.60	1.56	1.49	1.44	1.39
55	2.24	2.14	2.01	1.88	1.78	1.70	1.64	1.58	1.52	1.47

比如：在工况蒸发温度-5°C、冷凝温度45°C下，冷凝负荷系数 $F_c$ 为1.42，如果需要的制冷量88.7KW，则所需要的冷凝器的负荷为 $Q_c = 88.7KW \times 1.42 = 126KW$ 。

2 确定冷凝器所需要的名义换热量(参数表中所标定的换热量) $Q_n$ ：

根据下列公式计算名义换热量：

$$Q_n = Q_c / (K_1 \times k_2 \times K_3 \times K_4 \times K_5)$$

式中： $K_1$  — 传热温差修正系数，见表 $k_1$ ；传热温差 $\Delta T =$ 冷凝温度 $T_k$ -进风温度 $T_a$ 。

$k_2$  — 制冷剂修正系数，见表 $k_2$ ；

$K_3$  — 冷凝器进风温度修正系数，见表 $K_3$ ；

$K_4$  — 海拔高度修正系数，见表 $K_4$ ；

$K_5$  — 翅片材料修正系数，见表 $K_5$ ；

$K_1$ 传热温差 ( $\Delta T$ ) 修正系数表：

$\Delta T$ (k)	8	9	10	11	12	13	14	15	16	17	18	19	20
$K_1$	0.53	0.60	0.67	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.20	1.27	1.33

传热温差 $\Delta T =$ 冷凝温度 $T_k$ -进风温度 $T_a$ 。比如冷凝温度45°C、环境温度32°C， $\Delta T = 45 - 32 = 13K$

$K_2$ 制冷剂修正系数表：

制冷剂 Refrigerant	R404A	R507A	R134a	R407A	R407C	R22
$K_2$	1.00	1.00	0.93	0.83	0.87	0.96



K3冷凝器进风温度修正系数:

进风温度 (°C) Ambient temp (°C)	10	15	20	25	30	32	35	40	45	50
K3	1.04	1.03	1.02	1.00	0.99	0.98	0.97	0.95	0.94	0.93

K4海拔高度修正系数:

海拔高度 (m) Altitude (m)	0	200	400	600	800	1000	1200	1400
K4	1.000	0.987	0.974	0.960	0.945	0.931	0.917	0.903
海拔高度 (m) Altitude (m)	1600	1800	2000	2200	2400	2600	2800	3000
K4	0.890	0.876	0.862	0.847	0.833	0.818	0.805	0.790

K5铝箔材料修正系数:

铝箔材料 Fin material	光铝箔 Aluminum	镀膜铝箔 Epoxy coated aluminum
K5	1.00	0.97

▲ 选型举例:

要求冷凝器的换热量126kw, 环境温度32°C、冷凝温度45°C、制冷剂R404A、采用亲水铝箔, 使用广州。

- 根据 $\Delta T=45-32=13K$ , 查K1表, 得到 $K_1=0.87$ ;
- 根据使用制冷剂R404A, 查K2表, 得到 $K_2=1.0$ ;
- 根据进风温度32°C, 查K3表, 得到 $K_3=0.98$ ;
- 根据广州海拔高度43米, 查K4表, 可取 $K_4=1.0$ ;
- 根据采用亲水铝箔, 查K5表, 得到 $K_5=0.97$ ;

则所需要的冷凝器的名义换热量为:

$$Q_n = Q_c / (K_1 \times K_2 \times K_3 \times K_4 \times K_5) = 126 / (0.87 \times 1.0 \times 0.98 \times 1.0 \times 0.97) = 152kw$$

③ 选型:

- 根据需要选用合适的型式的冷凝器, 比如HC、RC或RVC
- 根据各型式冷凝器的参数表, 选择具体的型号
- 比如选用RVC系列的冷凝器, 根据名义换热量152kw, 可选用的冷凝器的型号为: RVC334/463N一台, 名义换热量为150.2kw。

## Selection Guide for Air Cooled Condenser

▲ Suitable condensers can be selected according to the following steps:

① Determine the condensation load of the condenser required under the design conditions

The condenser load can be determined by the following two methods:

1.1 Calculations based on formula  $Q_c = Q_o + P_e$

Formula:

$Q_c$  — Condensation load (KW) ;

$Q_o$  — Refrigeration capacity of compressor under design conditions (KW) ;

$P_e$  — Input Power of compressor under Design Conditions (KW) ;

For example, a FRASCOLD Z50-154Y (50HP) semi-hermetic compressor is designed with evaporation temperature -5°C, condensation temperature 45°C and refrigerant R404A. According to the compressor data or selection software, it can be found that the refrigeration capacity of the compressor is 88.7kw, and the input power is 37.3kw under this design condition. The required condensation load is  $Q_c = 88.7 + 37.3 = 126kw$ .

1.2 Calculations based on formula  $Q_c = Q_o \times F_c$

$F_c$  — The coefficient of condensation load, shown in the  $F_c$ - table below.

$F_c$ - table(Coefficient of condensation load of hermetic and semi-hermetic compressors)

冷凝温度 (°C) Cond. Temp. (°C)	蒸发温度 (°C) Evaporating Temp. (°C)									
	-40	-35	-30	-25	-20	-15	-10	-5	0	5
30	1.72	1.65	1.50	1.44	1.40	1.35	1.31	1.27	1.24	1.20
35	1.80	1.72	1.57	1.50	1.45	1.40	1.36	1.32	1.28	1.24
40	1.89	1.80	1.65	1.57	1.51	1.45	1.41	1.36	1.32	1.28
45	1.99	1.90	1.74	1.65	1.58	1.52	1.47	1.42	1.37	1.33
50	2.10	2.01	1.86	1.75	1.67	1.60	1.56	1.49	1.44	1.39
55	2.24	2.14	2.01	1.88	1.78	1.70	1.64	1.58	1.52	1.47

For example, at working evaporation temp.- 5°C and condensation temp. 45°C, the  $F_c$  is 1.42, if the required refrigeration capacity is 88.7kw, then the required load of the condenser is  $Q_c = 88.7KW \times 1.42$

② Determine the nominal capacity of the condenser (nominal capacity calibrated in the parameter table)  $Q_n$

Calculate nominal capacity based on the following formulas:

$$Q_n = Q_c / (K_1 \times K_2 \times K_3 \times K_4 \times K_5)$$

$K_1$  — Correction coefficient of heat transfer temperature difference  $\Delta T$ , see k1- table below

$k_2$  — Refrigerant correction factor; see k2-table below

$K_3$  — Correction Coefficient of Inlet air temperature of condenser; see k3-table below

$K_4$  — Altitude correction factor; see K4-table below

$K_5$  — Correction coefficient of fin material; see K5-table below

K1 :Table of Correction Coefficient of Temperature Difference ( $\Delta T$ )

$\Delta T$ (k)	8	9	10	11	12	13	14	15	16	17	18	19	20
K1	0.53	0.60	0.67	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.20	1.27	1.33

$\Delta T = T_k$ (condensation temp.)-  $T_a$ (ambient temp.), For example, the condensation temp. is 45°C, the ambient temp. is 32 C, and the  $\Delta T = 45-32 = 13K$ .

K2:Table of Refrigerant correction factor

制冷剂 Refrigerant	R404A	R507A	R134a	R407A	R407C	R22
K2	1.00	1.00	0.93	0.83	0.87	0.96

K3:Table of Correction Coefficient of Inlet Air Temperature of Condenser

进风温度 (°C) Ambient temp (°C)	10	15	20	25	30	32	35	40	45	50
K3	1.04	1.03	1.02	1.00	0.99	0.98	0.97	0.95	0.94	0.93



K4:Table of altitude correction factor

海拔高度 (m) Altitude (m)	0	200	400	600	800	1000	1200	1400
K4	1.000	0.987	0.974	0.960	0.945	0.931	0.917	0.903
海拔高度 (m) Altitude (m)	1600	1800	2000	2200	2400	2600	2800	3000
K4	0.890	0.876	0.862	0.847	0.833	0.818	0.805	0.790

K5: Correction coefficient of fin material

铝箔材料 Fin material	光铝箔 Aluminum	镀膜铝箔 Epoxy coated aluminum
K5	1.00	0.97

▲ For example:

The heat transfer capacity of the condenser is 126 kw, the ambient temp. is 32°C, the condensing temp. is 45°C, the refrigerant R404A is used, epoxy coated aluminum fins is used, and Installed in Guangzhou.

According to the  $\Delta T=45-32=13K$ , check K1-table ,we can know the  $K1=0.87$ ;

According to the refrigerant R404A, check K2-table ,we can know the  $K2=1.0$ ;

According to the ambient temp. 32°C, check K3-table ,we can know the  $K3=0.98$ ;

According to 0m above sea level, check K4-table ,we can know the  $K4=1.0$ ;

According to the material of fins, check K5-table ,we can know the  $K5=0.97$ ;

Then:  $Q_n = Q_c / (K_1 \times K_2 \times K_3 \times K_4 \times K_5) = 126 / (0.87 \times 1.0 \times 0.98 \times 1.0 \times 0.97) = 152kw$

③ Selection of condenser:

Choose the appropriate type of condenser as needed, such as HC, RC or RVC

According to the parameter table of each type of condenser, select the specific model.

For example, RVC series of condenser is used, according to the nominal capacity 152kw, model RVC334/463N can be selected, the nominal capacity is 150.2kw for this model condenser.

## 冷凝器噪音修正说明

数表中所标定的噪音值为距离10米的具有平行反射表面的声压级值。与距离的修正值如下表:

噪音的修正值:

距离 m	2	3	5	10	15	20	30	40	60	80	100
修正值 dBA	+12	+9.5	+5.5	0	-3	-5.5	-8.5	-11	-14	-16	-18

## Noise Correction explanation for Condensers

The noise value calibrated in the parameter table is the sound pressure level with parallel reflecting surface at a distance of 10 meters. The corrected values for distance are as follows:

Noise correction:

distance m	2	3	5	10	15	20	30	40	60	80	100
dBA Correction value	+12	+9.5	+5.5	0	-3	-5.5	-8.5	-11	-14	-16	-18

## 编后说明

① 对于产品手册中的任何技术问题或未尽事宜可咨询于本公司技术部;

② 本公司可根据客户特殊要求设计制造各种非标换热器, 详细要求可与技术部或销售部联系;

③ 本公司保留对资料中的任何技术参数自行更改的权利, 恕不另行通知, 更不承担任何责任。

## NOTE

① Please inquiry to our technical department if there is technical problems or other unknowns.

② Our company can design and manufacture all kinds of non-standard heat exchangers according to the special requirements of customers. Detailed requirements can be contacted with the technical department or sales department.

③ We reserve the right to change any technical parameters of the data without prior notice or liability.

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