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NEWEX INTERNATIONAL CO., LTD

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CS Series Ceiling Air Cooler

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CS 系列吊顶式冷风机

CS series ceiling air cooler

1. 产品概述:

- 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;
- 盘管:
采用 $\phi 12$ 铜管、管间距 38.1×33 或 $\phi 15$ 铜管、管间距 50×50 ;
波纹式铝片, 片距有 4.2mm、6.4mm 及 9.0mm;
- 风机:
外转子风机, 大功率、高压设计;
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;
独立的接线盒;
风机规格 $\phi 300$ 、 $\phi 400$ 、 $\phi 500$ 、 $\phi 630$
- 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
- 可满足 R404A、R507A、R448A、R449A、R134a、R22 等制冷剂使用。



Product Description

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

Heat Exchanger Coil:

Copper tubing $\phi 12$, spacing 38.1×33 or copper tubing $\phi 15$, spacing 50×50

Corrugated aluminium fins, fin spacing 4.2mm and 6.4mm and 9.0mm

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 $\phi 300$, $\phi 400$, $\phi 500$, $\phi 630$, standard 4-pole motor

Defrosting:

Standard use of electric defrosting, stainless heating pipes installed in the middle of coil and inner water plate.

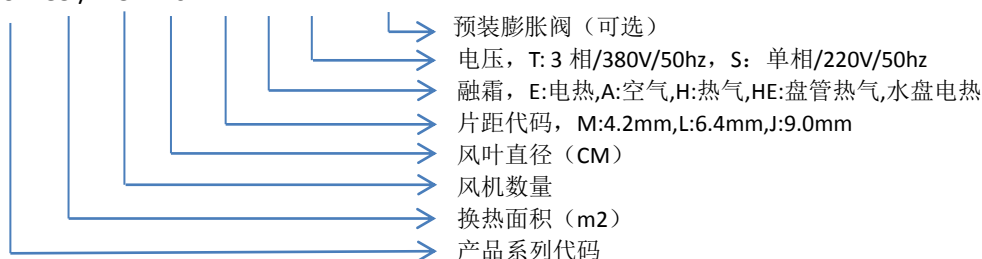
Independent electric heating tube junction box.

Hot gas defrosting or coil hot gas defrosting & water plate electric defrosting can also be used.

It can meet the requirements of R404A, R507A, R448A, R449A, R134a, R22 and other refrigerants

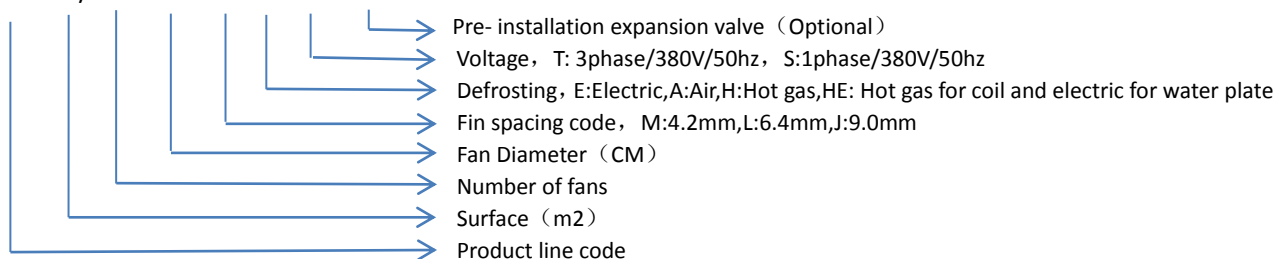
2. 型号说明:

CS 83 / 3 40 M - E T - V



Product Model Description

CS 83 / 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 ²	管容积 Tube volume dm ³	风量 airflow m ³ /h	射程 airthrow m	接口规格 (mm) Connection pipe			重量 weight kg
	Tc=0℃ Δ T=8K	Tc=-18℃ Δ T=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列 Fan 300										
CS11/130M-ES	2.63	2.1	10.5	2.1	1700	6	φ 12	φ 19	G1"	32
CS10/130M-ES-B	1.66	1.33	10.4	1.8	1800	6	φ 12	φ 19	G1"	31
CS14/130M-ES	3.06	2.44	13.9	2.8	1500	5	φ 12	φ 19	G1"	34
CS15/130M-ES-B	2.10	1.68	15.0	2.6	1700	5	φ 12	φ 19	G1"	34
CS21/230M-ES	5.26	4.2	21.0	4.1	3400	8	φ 12	φ 19	G1"	50
CS21/230M-ES-B	3.32	2.65	20.7	3.2	3600	8	φ 12	φ 19	G1"	49
CS28/230M-ES	6.12	4.9	27.9	5.5	3000	7	φ 12	φ 22	G1"	53
CS28/230M-ES-B	3.86	3.1	27.6	4.8	3400	7	φ 12	φ 22	G1"	52
CS31/330M-ES	7.89	6.3	31.4	5.8	5100	10	φ 12	φ 22	G1"	68
CS42/330M-ES	9.18	7.34	41.9	8.1	4500	10	φ 16	φ 28	G1"	73
CS42/430M-ES	10.52	8.4	41.9	7.7	6800	12	φ 12	φ 22	G1"	87
CS56/430M-ES	12.2	9.76	55.9	10.6	6000	12	φ 16	φ 28	G1.5"	93
400 风机系列 Fan 400										
CS27/140M-ET	4.6	3.7	27.0	4.4	3000	8	φ 12	φ 22	G1"	48
CS36/140M-ET	5.4	4.3	35.9	5.9	2700	7	φ 12	φ 22	G1"	53
CS36/240M-ET	6.5	5.4	35.9	5.9	6400	13	φ 12	φ 22	G1.5"	74
CS54/240M-ET	9.2	7.4	53.9	8.2	6000	12	φ 16	φ 28	G1.5"	81
CS72/240M-ET	10.8	8.6	71.9	10.9	5400	11	φ 16	φ 28	G1.5"	88
CS83/340M-ET	14.1	11.3	82.9	12.3	9000	15	φ 22	φ 42	G1.5"	123
CS110/340M-ET	16.6	13.3	110.6	16.4	8100	13	φ 22	φ 42	G1.5"	134
CS108/440M-ET	18.3	14.6	107.8	15.8	12000	16	φ 22	φ 42	G1.5"	158
CS144/440M-ET	21.6	17.3	143.8	21.1	10800	15	φ 22	φ 42	G1.5"	172
CS180/540M-ET	27.0	21.6	179.7	26.2	13500	18	φ 28	φ 54	G1.5"	215
500 风机系列 Fan 500										
CS58/150M-ET	9.86	7.89	58.0	9.3	6000	18	φ 16	φ 28	G1.5"	78
CS73/150M-ET	11.2	8.95	72.6	11.3	5750	17	φ 16	φ 28	G1.5"	84
CS87/150M-ET	12.5	10.0	87.1	13.3	5500	17	φ 16	φ 28	G1.5"	90
CS116/250M-ET	19.72	15.8	116.1	17.4	12000	21	φ 22	φ 42	G1.5"	145
CS145/250M-ET	22.4	17.9	145.2	21.4	11500	20	φ 22	φ 42	G1.5"	156
CS174/250M-ET	25.0	20.0	174.2	25.5	11000	20	φ 22	φ 42	G1.5"	167
CS174/350M-ET	29.6	23.68	174.2	25.5	18000	23	φ 28	φ 54	G2.5"	202
CS218/350M-ET	33.6	26.8	217.7	31.6	17300	22	φ 28	φ 54	G2.5"	220
CS261/350M-ET	37.5	30.0	261.3	37.6	16500	22	φ 28	φ 54	G2.5"	236
CS232/450M-ET	39.4	31.52	232.2	33.5	24000	25	φ 28	φ 54	G2.5"	263
CS290/450M-ET	44.5	35.6	290.3	41.6	23000	24	φ 28	φ 54	G2.5"	285
CS348/450M-ET	49.6	39.68	348.4	49.7	22000	24	φ 28	φ 54	G2.5"	307

备注：1) 表中 Tc 为库温，Δ T 为库温与蒸发温度之差。2) 对 300 风机系列，带尾缀-B 的机型采用的是 φ 15 管型，无-B 尾缀的为 φ 12 管型。

Remarks: 1. In the table, Tc is the coldroom temperature, and Δ T is the difference between the coldroom temperature and the evaporation temperature. 2. For 300 fan series, the model with tail suffix-B adopts the pipe type of φ 15, while the model without-B suffix is the pipe type of φ 12.

片距 4.2mm, 续上表 Fin spacing 4.2mm, Continued previous table

型号 Model	制冷量/R404A (KW) Capacity		面积 surface m ²	管容积 Tube volume dm ³	风量 airflow m ³ /h	射程 airthrow m	接口规格 (mm) Connection pipe			重量 weight kg
	Tc=0℃ Δ T=8K	Tc=-18℃ Δ T=7K					进液 inlet	回气 outlet	排水 drain	
630 风机系列 Fan 630										
CS100/163M-ET	15.9	12.7	99.5	15.0	10200	28	φ 22	φ 28	G1.5"	123
CS125/163M-ET	18.1	14.5	124.4	18.8	9900	27	φ 22	φ 35	G1.5"	134
CS150/163M-ET	20.2	16.1	149.3	22.5	9600	27	φ 22	φ 35	G1.5"	145
CS199/263M-ET	31.8	25.4	199.0	28.9	20400	32	φ 22	φ 42	G1.5"	213
CS249/263M-ET	36.1	28.9	248.8	36.1	19800	31	φ 22	φ 42	G1.5"	233
CS299/263M-ET	40.4	32.3	298.5	43.3	19200	31	φ 22	φ 42	G1.5"	253
CS299/363M-ET	47.7	38.2	298.5	42.8	30600	35	φ 28	φ 54	G2.5"	303
CS373/363M-ET	54.2	43.4	373.2	53.5	29700	34	φ 28	φ 54	G2.5"	333
CS448/363M-ET	60.6	48.5	447.8	64.1	28800	34	φ 28	φ 54	G2.5"	362

备注: 表中 Tc 为库温, Δ T 为库温与蒸发温度之差。

Remarks: 1. In the table, Tc is the coldroom temperature, and Δ T is the difference between the coldroom temperature and the evaporation temperature.

3.2 片距 6.4mm, Fins spacing 6.4mm

型号 Model	制冷量/R404A (KW) Capacity		面积 surface m ²	管容积 Tube volume dm ³	风量 airflow m ³ /h	射程 airflow m	接口规格 (mm) Connection pipe			重量 weight kg
	Tc=0℃ Δ T=8K	Tc=-18℃ Δ T=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列 Fan 300										
CS7/130L-ES	1.95	1.56	7.1	2.1	1800	6	φ 12	φ 19	G1"	31
CS7/130L-ES-B	1.47	1.17	7.0	1.8	1800	6	φ 12	φ 19	G1"	30
CS10/130L-ES	2.38	1.90	9.5	2.8	1600	5	φ 12	φ 19	G1"	33
CS10/130L-ES-B	1.80	1.44	10.0	2.6	1600	5	φ 12	φ 19	G1"	33
CS14/230L-ES	3.90	3.12	14.2	4.1	3600	8	φ 12	φ 19	G1"	48
CS14/230L-ES-B	2.94	2.35	13.9	3.2	3600	8	φ 12	φ 19	G1"	47
CS19/230L-ES	4.72	3.78	18.9	5.5	3200	7	φ 12	φ 22	G1"	51
CS19/230L-ES-B	3.33	2.60	18.5	4.8	3200	7	φ 12	φ 22	G1"	50
CS21/330L-ES	5.85	4.68	21.3	5.8	5400	10	φ 16	φ 28	G1"	65
CS28/330L-ES	7.1	5.68	28.4	8.1	4800	10	φ 16	φ 28	G1"	69
CS28/430L-ES	7.8	6.24	28.4	7.7	7200	12	φ 16	φ 28	G1"	83
CS38/430L-ES	9.45	7.56	37.8	10.6	6400	12	φ 16	φ 28	G1.5"	88
400 风机系列 Fan 400										
CS18/140L-ET	3.2	2.6	18.0	4.4	3200	8	φ 12	φ 22	G1"	46
CS24/140L-ET	4.1	3.3	24.1	5.9	2900	7	φ 12	φ 22	G1"	50
CS24/240L-ET	4.6	3.8	24.1	5.9	6600	13	φ 12	φ 22	G1.5"	71
CS36/240L-ET	6.4	5.1	36.1	8.2	6400	12	φ 16	φ 28	G1.5"	76
CS48/240L-ET	8.2	6.6	48.2	10.9	5800	11	φ 16	φ 28	G1.5"	82
CS56/340L-ET	9.7	7.8	55.6	12.3	9600	14	φ 22	φ 42	G1.5"	116
CS74/340L-ET	12.5	10.0	74.1	16.4	8700	13	φ 22	φ 42	G1.5"	124
CS72/440L-ET	12.8	10.2	72.3	15.8	12800	16	φ 22	φ 42	G1.5"	149
CS96/440L-ET	16.4	13.1	96.3	21.1	11600	15	φ 22	φ 42	G1.5"	160
CS120/540L-ET	20.5	16.4	120.4	26.2	14500	18	φ 28	φ 54	G1.5"	200

备注: 1) 表中 Tc 为库温, Δ T 为库温与蒸发温度之差。2) 对 300 风机系列, 带尾缀-B 的机型采用的是 φ 15 管型, 无-B 尾缀的为 φ 12 管型。

Remarks: 1. In the table, Tc is the coldroom temperature, and Δ T is the difference between the coldroom temperature and the evaporation temperature. 2. For 300 fan series, the model with tail suffix-B adopts the pipe type of φ 15, while the model without-B suffix is the pipe type of φ 12.

片距 6.4mm, 续上表 Fin spacing 6.4mm, Continued previous table

型号 Model	制冷量/R404A (KW) Capacity		面积 surface m ²	管容积 Tube volume dm ³	风量 airflow m ³ /h	射程 airflow m	接口规格 (mm) Connection pipe			重量 weight kg
	Tc=0℃ Δ T=8K	Tc=-18℃ Δ T=7K					进液 inlet	回气 outlet	排水 drain	
500 风机系列 Fan 500										
CS39/150L-ET	8.26	6.61	38.9	9.3	6200	18	φ 16	φ 28	G1.5"	73
CS49/150L-ET	9.61	7.68	48.6	11.3	5950	17	φ 16	φ 28	G1.5"	78
CS58/150L-ET	10.95	8.76	58.4	13.3	5700	17	φ 16	φ 28	G1.5"	83
CS78/250L-ET	16.5	13.22	77.8	17.4	12400	21	φ 22	φ 42	G1.5"	135
CS97/250L-ET	19.2	15.37	97.3	21.5	11900	20	φ 22	φ 42	G1.5"	144
CS117/250L-ET	21.9	17.52	116.7	25.5	11400	20	φ 22	φ 42	G1.5"	152
CS117/350L-ET	24.8	19.83	116.7	25.5	18600	23	φ 28	φ 54	G2.5"	187
CS146/350L-ET	28.9	23.1	145.9	31.6	17850	22	φ 28	φ 54	G2.5"	200
CS175/350L-ET	32.85	26.28	175.1	37.6	17100	22	φ 28	φ 54	G2.5"	214
CS156/450L-ET	33.0	26.44	155.6	33.5	24800	25	φ 28	φ 54	G2.5"	243
CS195/450L-ET	38.4	30.7	194.5	41.6	23800	24	φ 28	φ 54	G2.5"	260
CS234/450L-ET	43.75	35.0	233.5	49.7	22800	24	φ 28	φ 54	G2.5"	277
630 风机系列 Fan 630										
CS67/163L-ET	13.4	10.7	66.7	15.0	10600	28	φ 22	φ 28	G1.5"	114
CS83/163L-ET	15.5	12.4	83.4	18.8	10300	27	φ 22	φ 35	G1.5"	123
CS100/163L-ET	17.5	14.0	100.1	22.5	10000	27	φ 22	φ 35	G1.5"	132
CS133/263L-ET	26.7	21.4	133.4	28.9	21200	32	φ 22	φ 42	G1.5"	196
CS167/263L-ET	30.9	24.7	166.8	36.1	20600	31	φ 22	φ 42	G1.5"	212
CS200/263L-ET	35.0	28.0	200.2	43.3	20000	31	φ 22	φ 42	G1.5"	227
CS200/363L-ET	40.0	32.0	200.1	42.8	31800	35	φ 28	φ 54	G2.5"	278
CS250/363L-ET	46.3	37.0	250.1	53.5	30900	34	φ 28	φ 54	G2.5"	300
CS300/363L-ET	52.5	42.0	300.2	64.1	30000	34	φ 28	φ 54	G2.5"	323

备注: 1) 表中 Tc 为库温, Δ T 为库温与蒸发温度之差。

Remarks: 1. In the table, Tc is the coldroom temperature, and Δ T is the difference between the coldroom temperature and the evaporation temperature.

3.3 片距 9.0mm, Fin spacing 9.0mm

型号 Model	制冷量/R404A (KW) capacity		面积 Surface m ²	管容积 Tube volume dm ³	风量 airflow m ³ /h	射程 airthrow m	接口规格 (mm) Connection pipe			重量 weight kg
	Tc=0℃ Δ T=8K	Tc=-18℃ Δ T=7K					进液 inlet	回气 outlet	排水 drain	
300 风机系列 Fans 300										
CS5/130J-ES	1.56	1.25	5.2	2.1	1900	6	φ 12	φ 19	G1"	31
CS5/130J-ES-B	1.22	0.98	5.1	1.8	1900	6	φ 12	φ 19	G1"	30
CS7/130J-ES	2.01	1.61	7.0	2.8	1700	5	φ 12	φ 19	G1"	33
CS7/130J-ES-B	1.60	1.30	7.3	2.6	1700	5	φ 12	φ 19	G1"	33
CS11/230J-ES	3.15	2.52	10.5	4.1	3800	8	φ 12	φ 19	G1"	48
CS10/230J-ES-B	2.44	1.95	10.1	3.2	3800	8	φ 12	φ 19	G1"	47
CS14/230J-ES	4.03	3.22	14.0	5.5	3400	7	φ 12	φ 22	G1"	51
CS14/230J-ES-B	3.0	2.40	13.5	4.8	3400	7	φ 12	φ 22	G1"	50
CS16/330J-ES	4.68	3.75	15.7	5.8	5700	10	φ 16	φ 28	G1"	65
CS21/330J-ES	6.04	4.83	21.0	8.1	5100	10	φ 16	φ 28	G1"	69
CS21/430J-ES	6.40	5.0	21.0	7.7	7600	12	φ 16	φ 28	G1"	83
CS28/430J-ES	8.05	6.44	27.9	10.6	6800	12	φ 16	φ 28	G1.5"	88

备注: 1) 表中 Tc 为库温, Δ T 为库温与蒸发温度之差。2) 对 300 风机系列, 带尾缀-B 的机型采用的是 φ 15 管型, 无-B 尾缀的为 φ 12 管型。Remarks: 1. In the table, Tc is the coldroom temperature, and Δ T is the difference between the coldroom temperature and the evaporation temperature. 2. For 300 fan series, the model with tail suffix-B adopts the pipe type of φ 15, while the model without-B suffix is the pipe type of φ 12.

片距 9.0mm, 续上表 Fin spacing 9.0mm, Continued previous table

型号 Model	制冷量/R404A (KW) capacity		面积 Surface m ²	管容积 Tube volume dm ³	风量 airflow m ³ /h	射程 airthrow m	接口规格 (mm) Connection pipe			重量 weight kg
	Tc=0°C Δ T=8K	Tc=-18°C Δ T=7K					进液 inlet	回气 outlet	排水 drain	
400 风机系列 Fan 400										
CS13/140J-ET	2.5	2.0	13.2	4.4	3400	8	φ 12	φ 22	G1"	46
CS18/140J-ET	3.2	2.6	17.6	5.9	3100	7	φ 12	φ 22	G1"	50
CS18/240J-ET	3.7	3.0	17.6	5.9	7000	13	φ 12	φ 22	G1.5"	71
CS26/240J-ET	5.0	4.0	26.3	8.2	6800	12	φ 16	φ 28	G1.5"	76
CS35/240J-ET	6.4	5.1	35.1	10.9	6200	11	φ 16	φ 28	G1.5"	82
CS41/340J-ET	7.6	6.1	40.5	12.3	10200	14	φ 22	φ 42	G1.5"	116
CS54/340J-ET	9.7	7.8	54.0	16.4	9300	13	φ 22	φ 42	G1.5"	124
CS53/440J-ET	10.0	8.0	52.7	15.8	13600	16	φ 22	φ 42	G1.5"	149
CS70/440J-ET	12.8	10.2	70.3	21.1	12400	15	φ 22	φ 42	G1.5"	160
CS88/540J-ET	16.0	12.8	87.8	26.2	15500	18	φ 28	φ 54	G1.5"	200
500 风机系列 Fan 500										
CS28/150J-ET	7.08	5.66	28.3	9.3	6400	18	φ 16	φ 28	G1.5	73
CS36/150J-ET	8.6	6.88	35.5	11.3	6150	17	φ 16	φ 28	G1.5	78
CS43/150J-ET	10.1	8.08	42.5	13.3	5900	17	φ 16	φ 28	G1.5"	83
CS57/250J-ET	14.15	11.32	56.6	17.4	12800	21	φ 22	φ 42	G1.5"	135
CS71/250J-ET	17.2	13.74	70.9	21.5	12300	20	φ 22	φ 42	G1.5"	144
CS85/250J-ET	20.2	16.16	85.0	25.5	11800	20	φ 22	φ 42	G1.5"	152
CS85/350J-ET	21.22	16.98	85.0	25.5	19200	23	φ 28	φ 54	G2.5"	187
CS107/350J-ET	25.8	20.6	106.4	31.6	18450	22	φ 28	φ 54	G2.5"	200
CS128/350J-ET	30.3	24.24	127.5	37.6	17700	22	φ 28	φ 54	G2.5"	214
CS114/450J-ET	28.3	22.64	113.3	33.5	25600	25	φ 28	φ 54	G2.5"	243
CS142/450J-ET	34.4	27.45	141.9	41.6	24600	24	φ 28	φ 54	G2.5"	260
CS170/450J-ET	40.4	32.32	170.0	49.7	23600	24	φ 28	φ 54	G2.5"	277
630 风机系列 Fan 630										
CS49/163J-ET	11.6	9.3	48.6	15.0	11000	28	φ 22	φ 28	G1.5"	114
CS61/163J-ET	13.7	11.0	60.8	18.8	10700	27	φ 22	φ 35	G1.5"	123
CS73/163J-ET	15.7	12.6	72.8	22.5	10400	27	φ 22	φ 35	G1.5"	132
CS97/263J-ET	23.1	18.5	97.1	28.9	22000	32	φ 22	φ 42	G1.5"	196
CS122/263J-ET	27.3	21.8	121.6	36.1	21400	31	φ 22	φ 42	G1.5"	211
CS146/263J-ET	31.4	25.1	145.7	43.3	20800	31	φ 22	φ 42	G1.5"	227
CS146/363J-ET	34.7	27.8	145.7	42.8	33000	35	φ 28	φ 54	G2.5"	278
CS182/363J-ET	40.9	32.7	182.4	53.5	32100	34	φ 28	φ 54	G2.5"	300
CS219/363J-ET	47.1	37.7	218.5	64.1	31200	34	φ 28	φ 54	G2.5"	323

备注: 1) 表中 Tc 为库温, Δ T 为库温与蒸发温度之差。

Remarks: 1. In the table, Tc is the coldroom temperature, and Δ T is the difference between the coldroom temperature and the evaporation temperature.

4. 电器参数表 Electrical parameter table:

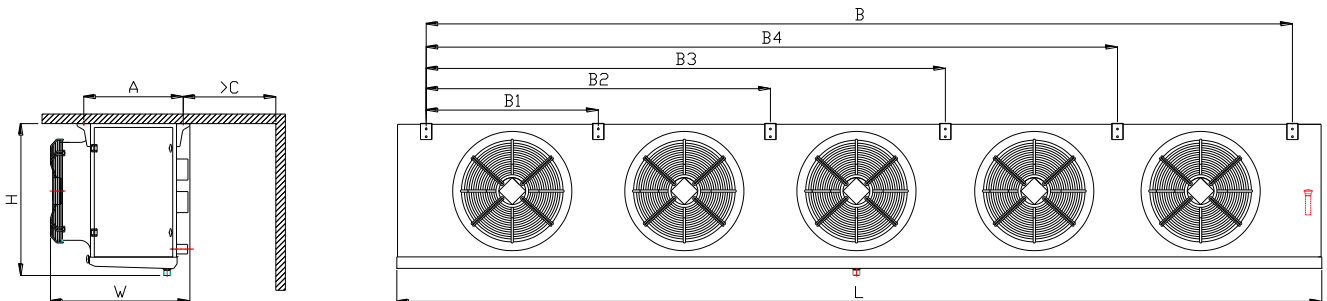
型号 Model	风扇电机 Fan motor				电热除霜 Electric Defrosting		
	电压 (V) voltage	功率 (W) Power	电流 (A) Current	转速 Rev.(r/min)	盘管 (KW) Coil	水盘 (KW) Tray	总功率 (KW) Total
CS*/130**	220-1	93	0.44	1330	2×0.5	1×0.5	1.5
CS*/230**	220-1	186	0.88	1330	2×0.9	1×0.9	2.7
CS*/330**	220-1	279	1.32	1330	2×1.3	1×1.3	3.9
CS*/430**	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

电器参数续表 Electrical parameter table (Continued)

型号 Model	风扇电机 Fan motor				电热除霜 Electric Defrosting		
	电压 (V) voltage	功率 (W) Power	电流 (A) Current	转速 Rev.(r/min)	盘管 (KW) Coil	水盘 (KW) Tray	总功率 (KW) Total
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
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&installation dimension:

型号 Model	外形尺寸 Outline (mm)			安装尺寸 Installation (mm)							
	L	W	H	A	B	B1	B2	B3	B4	C	安装孔 hole
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	820	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



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 $Q=10\text{kW}$ 、库温要求 2°C 、制冷剂为 R134a ，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): $\Delta T=T_c-T_e$ (T_c : 库温、 T_e : 蒸发温度)
比如设计的蒸发温度为 -8°C (蒸发温度一般比库温低 $5\sim 10^{\circ}\text{C}$)，库温要求 2°C ，则 $\Delta T=2-(-8)=10\text{K}$;

2. 确定所需要的名义制冷量 Q_0 :

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

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: $Q_0 = 10 / (1.34 \times 0.91 \times 0.97) = 8.45\text{KW}$

3. 选择冷风机的型式和片距规格:

该冷风机用于果蔬保鲜库, 可选用 CS 系列的冷风机。根据库温 2°C , 可选用 4.2mm 的片距 (一般: 0°C 以上库温选用 4.2mm 片距, $-15\sim -20^{\circ}\text{C}$ 的库温选用 6.4mm 片距, -25°C 以下库温选用 9.0mm 的片距), 根据冷量参数表 ($T_c=0^{\circ}\text{C}$, $\Delta T=8\text{K}$) 的名义制冷量, 可选用: CS54/240M (名义冷量 9.2KW) 或 CS58/150M (名义冷量 9.8KW)

Selection Guide for Air Coolers

The selection of air 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 R134a . It is used for fresh-keeping of fruits and vegetables, and epoxy coated aluminium 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): $\Delta T = T_c - T_e$ (T_c : storage temperature, T_e : evaporation temperature)

For example, the designed evaporation temperature is -8°C , if the temperature of the storage is required to be 2°C , then $\Delta T = 2 - (-8) = 10\text{K}$.

2. Determine the nominal refrigeration capacity required Q_0 :

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

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: $Q_0 = 10 / (1.34 \times 0.91 \times 0.97) = 8.45\text{KW}$

3. Selection of type and fins spacing of air cooler

The air cooler used in fresh storage of fruits and vegetables, so CS series air 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 $-15\sim -20^{\circ}\text{C}$, and 9.0mm space is selected for storage temp. below -25°C).

So according to the nominal capacity of the data sheet ($T_c=0^{\circ}\text{C}$, $\Delta T=8\text{K}$), CS54/240M (nominal capacity 9.2KW) or CS58/150M (nominal capacity 9.8KW) can be selected.

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

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

Δ T (K)	库 温 (°C) Cold room temp.															
	-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:

K2: Refrigerant correction factor table

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

K3: Correction Coefficient of fin material table

翅片材料 Fin Material	修正系数 Coefficient
光铝箔 Aluminum	1.0
镀膜铝箔 Epoxy coated Aluminum	0.97