



I-Chereng

Born for Innovative Coils



HBM/HM condenser

For large Scale System application

大型臥式冷凝器系列

HBM/HM condenser

HBM/HM Series--The best choice condenser for large scale refrigeration system!

High Efficiency, Palatial Outward and Maintenance Easy!

HBM/HM 系列--大型冷凍系統冷凝器的最佳選擇!

高效率、宏偉外觀與易於維修！

Exterior

This series is designed for large scale refrigeration system. All models are for outdoor or roof top installation. With outstanding profile design could be taken as part of building.

外觀

此系列機種是專為大型冷凍系統所設計。全機種適合安裝於戶外或屋頂。傑出的外觀設計可與建築物融為一體。

Interior

Horizontal coil with gravity effect design and inner grooved tubes maximize the performance in minimum space. Equipped with high performance inside fan set provides the best air flow. Patented endplate design provides the best protection to copper tubes, avoids tube damage during transportation and operation. All fins in coils are 8006 aluminum alloy.

內在

重力式水平熱交換器設計與內螺紋管得以實現小空間最大能力化。內置式高效能風車提供最佳氣流量。專利端板設計降低因震動導致破管機率，避免運輸或運轉震動損傷。

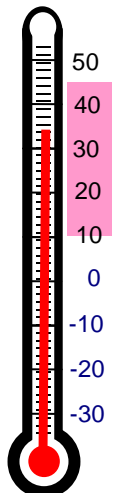
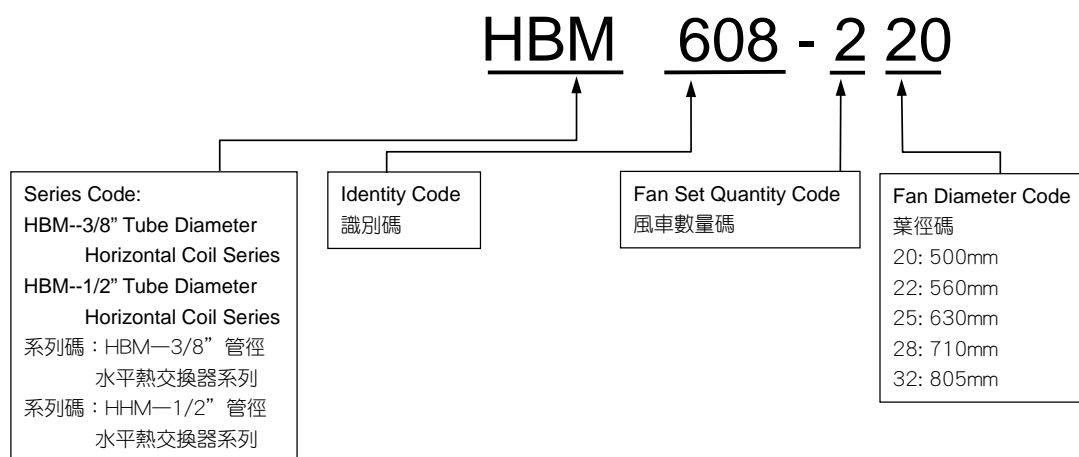
全系列盤管鰭片採用 8006 鋁合金。

Functional

All units are carefully designed for better cooling efficiency. With optional inverter makes the optimum condensing temperature control and lowers the operating noise during night hours.

功能

全系列機種經過詳細設計，發揮最佳的冷凝效果。另有選購變頻器，可進行冷凝溫度控制並降低夜間運轉噪音。



HBM/HM condenser

60Hz

HBM Technical Data

Fin Spacing=2.54mm

鰭片間距 =2.54mm

MODEL 型號	Capacity 能力 kW	Heat Transfer Area 傳熱面積 m ²	Internal Volume 管內容積 L	Fan Set 風車		
	TD=15 °C			Qty. 數量	Dia.葉徑 mm	Airflow 風量 cmh
HBM228-120	15.20	28.4	4.7	1	500	5330
HBM304-120	17.40	37.8	6.2	1	500	5119
HBM456-220	30.60	56.7	9.3	2	500	10660
HBM608-220	34.90	75.7	12.4	2	500	10239
HBM684-320	46.20	85.1	14	3	500	15990
HBM911-320	52.70	113.4	18.3	3	500	15358
HBM913-420	60.90	113.5	18.6	4	500	21321
HBM1217-420	69.90	151.3	24.8	4	500	20478
HBM339-122	22.50	42.1	6.9	1	560	7881
HBM451-122	25.90	56.2	9.2	1	560	7630
HBM677-222	45.80	84	13.3	2	560	15761
HBM903-222	52.60	112.3	18.4	2	560	15261
HBM1016-322	68.00	126.3	20.7	3	560	23642
HBM1353-322	79.30	168.5	27.6	3	560	22892
HBM1355-422	92.20	168.5	27.6	4	560	31523
HBM1806-422	105.60	224.6	36.9	4	560	30522
HBM495-125	32.80	61.6	10.1	1	630	11384
HBM660-125	37.80	82.1	13.5	1	630	11115
HBM990-225	66.50	123	20.2	2	630	22769
HBM1320-225	76.40	163.9	26.3	2	630	22129
HBM1485-325	100.00	184.7	30.3	3	630	34153
HBM1980-325	114.90	246.3	40.4	3	630	33193

HBM/HM condenser

Fin Spacing=2.54mm

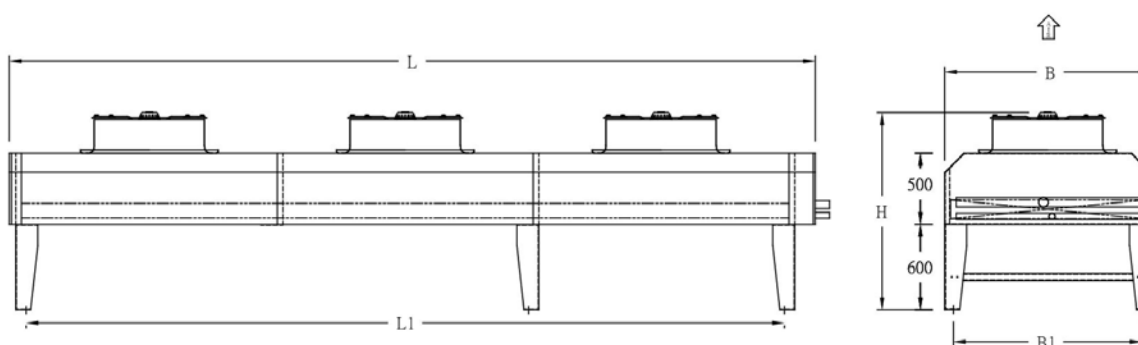
60Hz

HHM Technical Data 鰭片間距 =2.54mm

MODEL 型號	Capacity 能力 kW	Heat Transfer Area 傳熱面積 m ²	Internal Volume 管內容積 m ²	Fan Set 風車		
	TD=15 °C			Qty. 數量	Dia.葉徑 mm	Airflow 風量 cmh
HHM475-125	35.50	95.6	12.4	1	630	11653
HHM429-125	39.40	119.5	15.4	1	630	11419
HHM554-125	42.30	143.4	18.5	1	630	11092
HHM686-225	72.00	191	24.1	2	630	23306
HHM858-225	79.90	238.6	29.7	2	630	22838
HHM1029-225	85.80	286.8	37.1	2	630	22183
HHM1031-325	108.20	286.8	37.1	3	630	34960
HHM1287-325	120.00	358.5	46.3	3	630	34258
HHM1545-325	129.50	430	55.6	3	630	33275
HHM1373-425	146.60	382	49.4	4	630	46613
HHM1716-425	162.40	478	61.8	4	630	45677
HHM2059-425	172.30	573.6	74.1	4	630	44366
HHM475-128	48.60	132.4	17.1	1	710	15682
HHM594-128	54.50	165.17	21.4	1	710	15422
HHM713-128	58.20	198.6	25.7	1	710	15098
HHM950-228	97.50	264.6	34.2	2	710	31363
HHM1188-228	108.20	303.3	41.1	2	710	30845
HHM1426-328	117.60	397.1	51.3	2	710	30197
HHM1426-328	149.50	397.1	51.3	3	710	47045
HHM1782-328	165.90	496.4	64.2	3	710	46267
HHM2139-328	176.80	595.7	77	3	710	45295
HHM634-132	67.80	176.5	22.8	1	805	22205
HHM792-132	75.60	220.6	28.5	1	805	21859
HHM950-132	81.50	264.8	34.2	1	805	21600
HHM1267-232	136.30	353	45.6	2	805	44410
HHM1584-232	154.00	441.3	57	2	805	43718
HHM1901-232	163.60	529.5	68.4	2	805	43200
HHM1901-332	208.30	529.5	68.4	3	805	66614
HHM2376-332	231.90	661.9	85.6	3	805	65578
HHM2851-332	249.60	794.3	102.7	3	805	64800

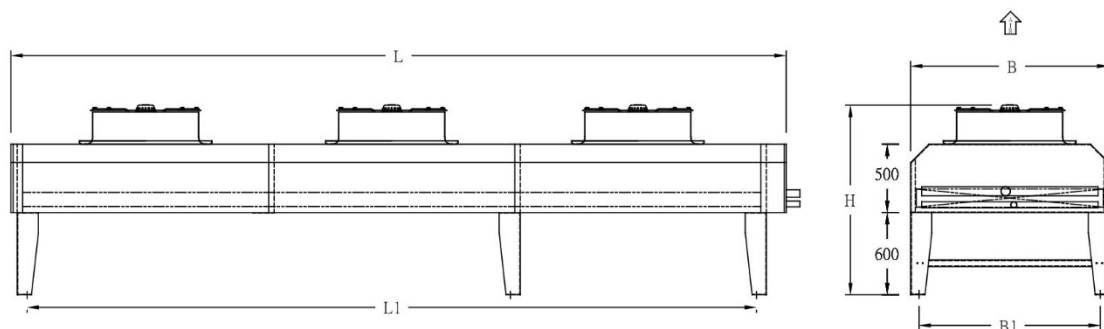
HBM Dimension

MODEL 型號	Connection 冷媒接管		Dimension 尺寸 mm			Anchor 固定位置 mm	
	In 入	Out 出	L	H	B	L1	B1
HBM228-120	5/8"	5/8"	990	1307	890	655	766
HBM304-120	5/8"	5/8"	990	1307	890	655	766
HBM456-220	3/4"	3/4"	1710	1307	890	1375	766
HBM608-220	3/4"	3/4"	1710	1307	890	1375	766
HBM684-320	7/8"	7/8"	2430	1307	890	2095	766
HBM911-320	7/8"	7/8"	2430	1307	890	2095	766
HBM913-420	1 1/8"	1 1/8"	3150	1307	890	2815	766
HBM1217-420	1 1/8"	1 1/8"	3150	1307	890	2815	766
HBM339-122	3/4"	3/4"	1220	1313	990	885	866
HBM451-122	3/4"	3/4"	1220	1313	990	885	866
HBM677-222	7/8"	7/8"	2170	1313	990	1835	866
HBM903-222	1 1/8"	1 1/8"	2170	1313	990	1835	866
HBM1016-322	1 1/8"	1 1/8"	3120	1313	990	2785	866
HBM1353-322	1 3/8"	1 3/8"	3120	1313	990	2785	866
HBM1355-422	1 3/8"	1 3/8"	4070	1313	990	3735	866
HBM1806-422	1 3/8"	1 3/8"	4070	1313	990	3735	866
HBM495-125	7/8"	7/8"	1520	1265	1095	1185	971
HBM660-125	7/8"	7/8"	1520	1265	1095	1185	971
HBM990-225	1 1/8"	1 1/8"	2770	1265	1095	2435	971
HBM1320-225	1 1/8"	1 1/8"	2770	1265	1095	2435	971
HBM1485-325	1 3/8"	1 3/8"	4020	1265	1095	3685	971
HBM1980-325	1 3/8"	1 3/8"	4020	1265	1095	3685	971



HHM Dimension

MODEL 型號	Connection 冷媒接管		Dimension 尺寸 mm			Anchor 固定位置 mm	
	In 入	Out 出	L	H	B	L1	B1
HHM475-125	7/8"	7/8"	1570	1265	1075	1235	951
HHM429-125	7/8"	7/8"	1570	1265	1075	1235	951
HHM554-125	7/8"	7/8"	1570	1265	1075	1235	951
HHM686-225	1 1/8"	1 1/8"	2870	1265	1075	2535	951
HHM858-225	1 1/8"	1 1/8"	2870	1265	1075	2535	951
HHM1029-225	1 1/8"	1 1/8"	2870	1265	1075	2535	951
HHM1031-325	1 3/8"	1 3/8"	4170	1265	1075	3835	951
HHM1287-325	1 3/8"	1 3/8"	4170	1265	1075	3835	951
HHM1545-325	1 3/8"	1 3/8"	4170	1265	1075	3835	951
HHM1373-425	1 5/8"	1 5/8"	5470	1265	1075	5135	951
HHM1716-425	1 5/8"	1 5/8"	5470	1265	1075	5135	951
HHM2059-425	1 5/8"	1 5/8"	5470	1265	1075	5135	951
HHM475-128	1 1/8"	1 1/8"	2070	1265	1075	1735	951
HHM594-128	1 1/8"	1 1/8"	2070	1265	1075	1735	951
HHM713-128	1 1/8"	1 1/8"	2070	1265	1075	1735	951
HHM950-228	1 3/8"	1 3/8"	3870	1265	1075	3535	951
HHM1188-228	1 3/8"	1 3/8"	3870	1265	1075	3535	951
HHM1426-328	1 3/8"	1 3/8"	3870	1265	1075	3535	951
HHM1426-328	1 5/8"	1 5/8"	5670	1265	1075	5335	951
HHM1782-328	1 5/8"	1 5/8"	5670	1265	1075	5335	951
HHM2139-328	1 5/8"	1 5/8"	5670	1265	1075	5335	951
HHM634-132	1 3/8"	1 3/8"	2270	1390	1275	1935	1151
HHM792-132	1 3/8"	1 3/8"	2270	1390	1275	1935	1151
HHM950-132	1 3/8"	1 3/8"	2270	1390	1275	1935	1151
HHM1267-232	1 5/8"	1 5/8"	4270	1390	1275	3935	1151
HHM1584-232	1 5/8"	1 5/8"	4270	1390	1275	3935	1151
HHM1901-232	1 5/8"	1 5/8"	4270	1390	1275	3935	1151
HHM1901-332	2 1/8"	2 1/8"	6270	1390	1275	5935	1151
HHM2376-332	2 1/8"	2 1/8"	6270	1390	1275	5935	1151
HHM2851-332	2 1/8"	2 1/8"	6270	1390	1275	5935	1151



Capacity Selection

能力選擇

All the capacity data listed on the catalog is based on R404A and the temperature difference between inlet air temperature of coil and condensing temperature. The condition is listed on Table 1.

For the condition differs from above should be modified by following equation.

$$Q_r = Q_c \times f_1 \times f_2$$

Q_r : Rating capacity of condenser

Q_c : Capacity of condenser listed on catalog

f_1 : Correction factor for different temp. difference

$$f_1 = \Delta T / 15$$

ΔT : temp. difference between inlet air and condensing temp.

f_2 : Correction factor for refrigerant on Table 2

If installed above sea level more than 500m, please contact with us.

We also provide the anti corrosion coils (EnergyGuard® technology), if select the EnergyGuard coating, the capacity should time 0.975 correction factor again.

本型錄所有的能力資料是依據使用 R404A 以及表 1 所列的熱交換器進口空氣溫度與冷凝溫度溫度差所計算。

當條件與表 1 所列不同時，請依照下式進行能力修正：

$$Q_r = Q_c \times f_1 \times f_2$$

Q_r : 冷凝器額定能力

Q_c : 冷凝器型錄能力

f_1 : 不同溫度差修正係數

$$f_1 = \Delta T / 15$$

ΔT : 進口空氣溫度與冷凝溫度溫度差

f_2 : 表 2 不同冷媒修正係數

如果安裝在海拔高於 500 公尺以上的場所時，請與我們聯繫。

我們也提供防蝕處理的盤管(衛能防蝕技術®)，如果選購衛能防蝕處理，則能力必須要再乘上 0.975。

Table 1 Catalog capacity conditions

表 1 型錄性能條件

Item 項目	Condition 條件
Refrigerant 冷媒	R404A
Temperature Difference 溫度差	15 °C

Table 2 Correction factor f for different refrigerants

表 2 不同冷媒修正係數 f_2 值

Factor 係數	R404A/R507	R134a
f_2	1	0.93

Fan Set Performance

風車性能

Our fan set is designed for free outlet not for ducting purpose. If you have requirement for install air duct at the air outlet of condenser, please contact with us for special design.

We also provide optional inverter for condensing temperature control.

我們的風車設計是直接排出熱交換器，所有的表列風車能力是依據出口端無障礙物時所獲得，並不是為安裝風管所設計。如果您要於風車出口安裝風管，請與我們聯絡。

我們亦有選購變頻器，可以進行冷凝溫度控制。

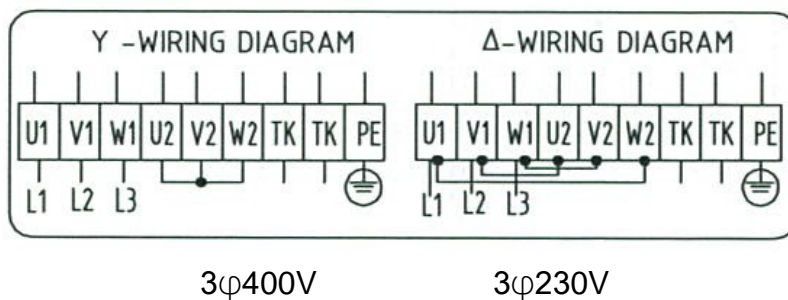
Table 3 Performance table of fan set (for one set)

表 3 風車組性能表(單組)

Hz 頻率	Fan Set Model 風車型號	Fan dia. 葉徑 mm	Input 入力 W	Voltage 電壓 V	Rating Current 額定電流 A
60Hz	6602JK	500	279	3 ϕ 230V	1.06
			279	3 ϕ 380V	0.61
	6602MB	560	410	3 ϕ 230V	1.40
			410	3 ϕ 380V	0.81
	6602NF	630	752	3 ϕ 230V	2.60
			757	3 ϕ 380V	1.51
	6602PK	710	1320	3 ϕ 230V	4.15
			1320	3 ϕ 380V	1.39
	6602RA2	805	1736	3 ϕ 230V	5.59
			1680	3 ϕ 380V	3.21

Line for Motor in Different Voltage

馬達電壓接線圖



TK: Overload Thermal Protector (Inside motor)

PE: Ground

U1, V1, W1: Power Source

TK: 過載溫度保護開關 (位於馬達內部)

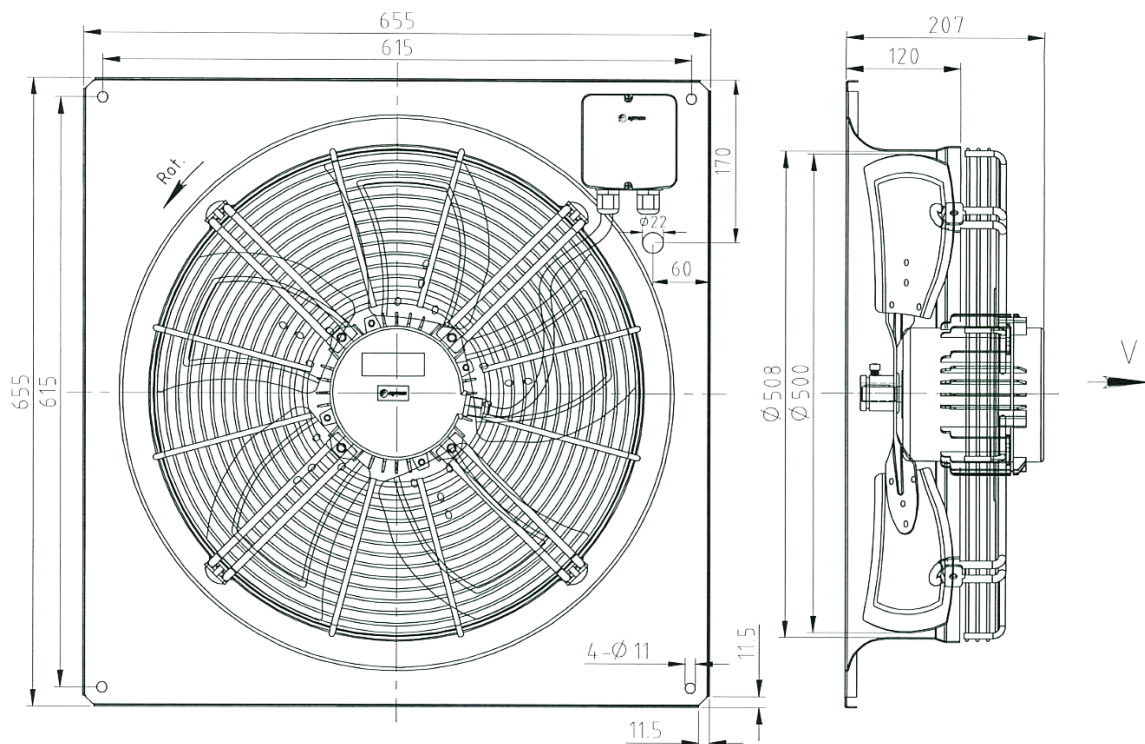
PE: 接地線

U1, V1, W1: 電源

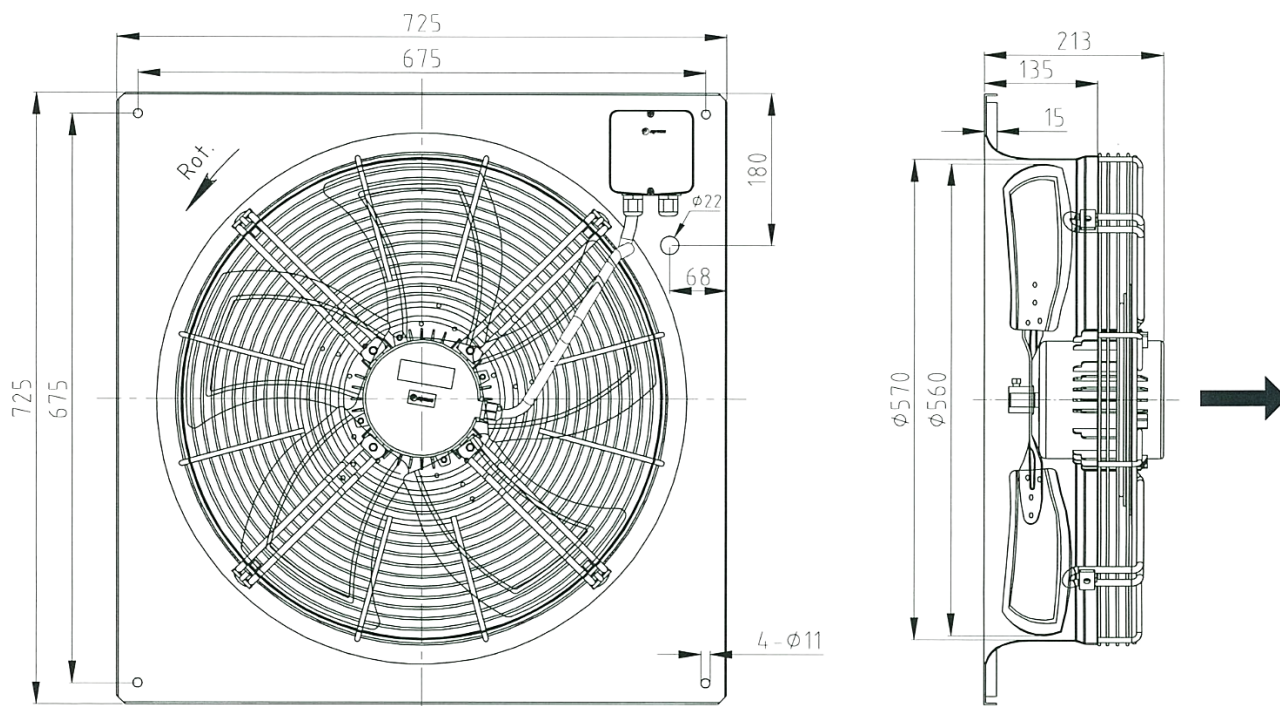
HBM/HM condenser

Dimension of Fan set 風車組尺寸

6602JK

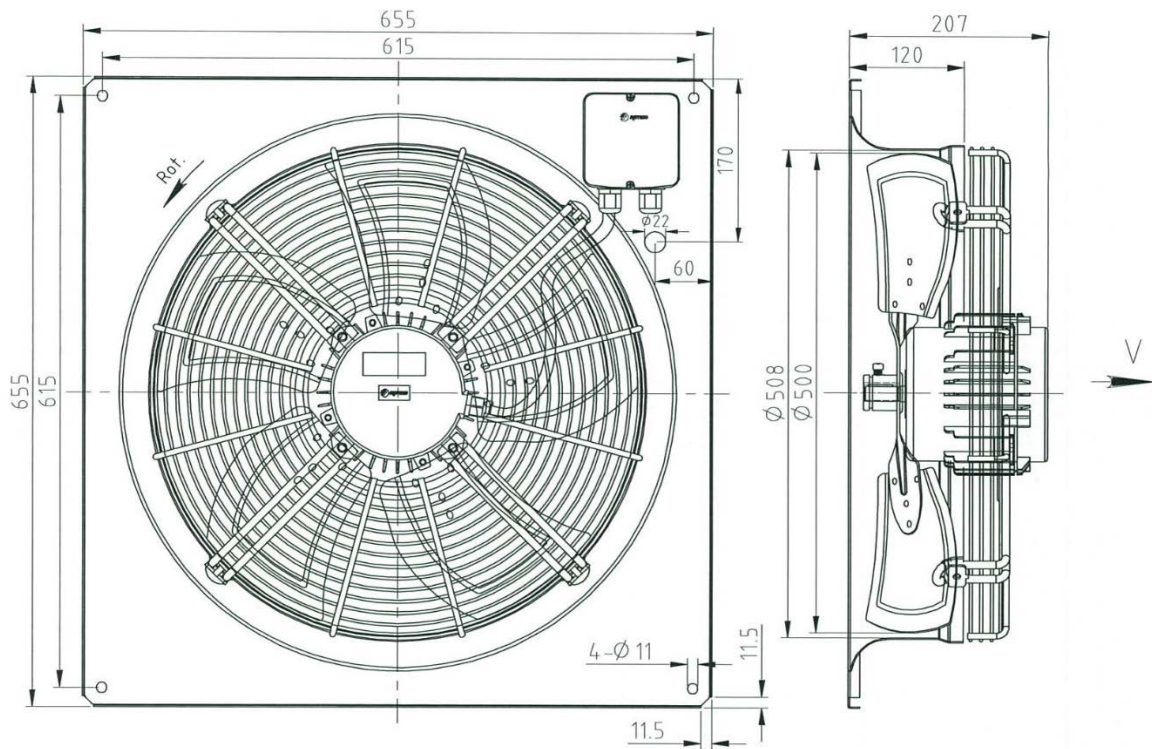


6602MB

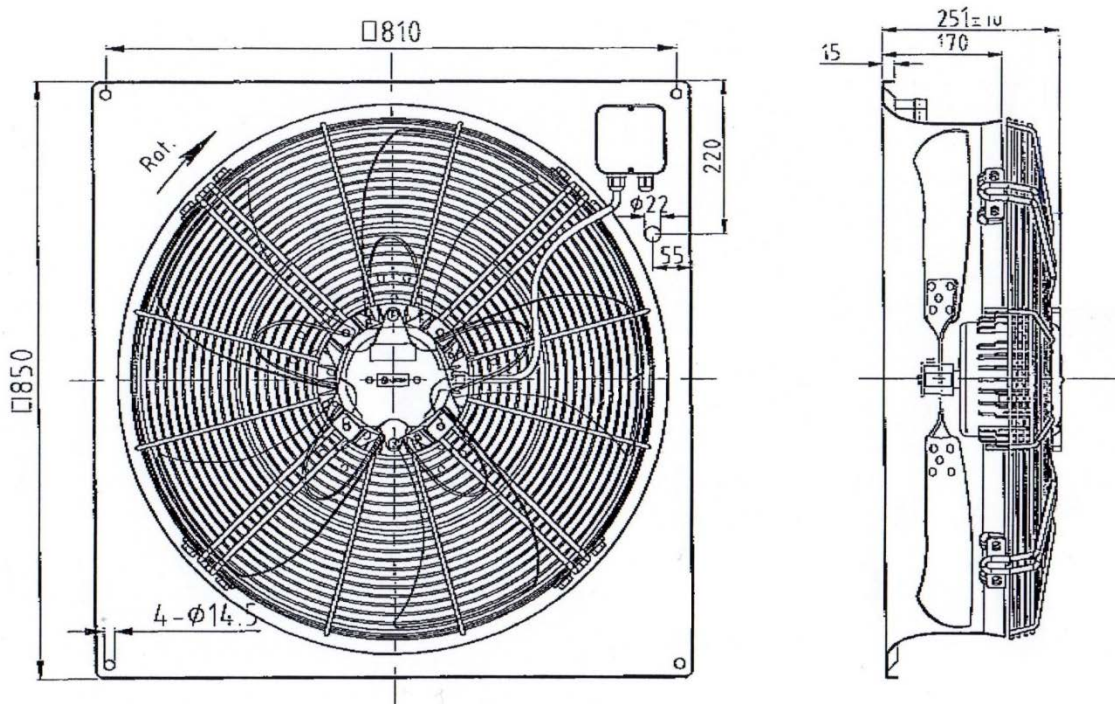


HBM/HM condenser

6602JK

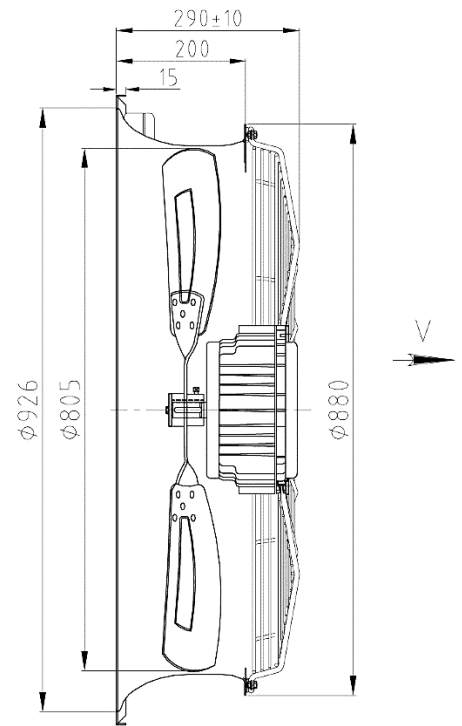
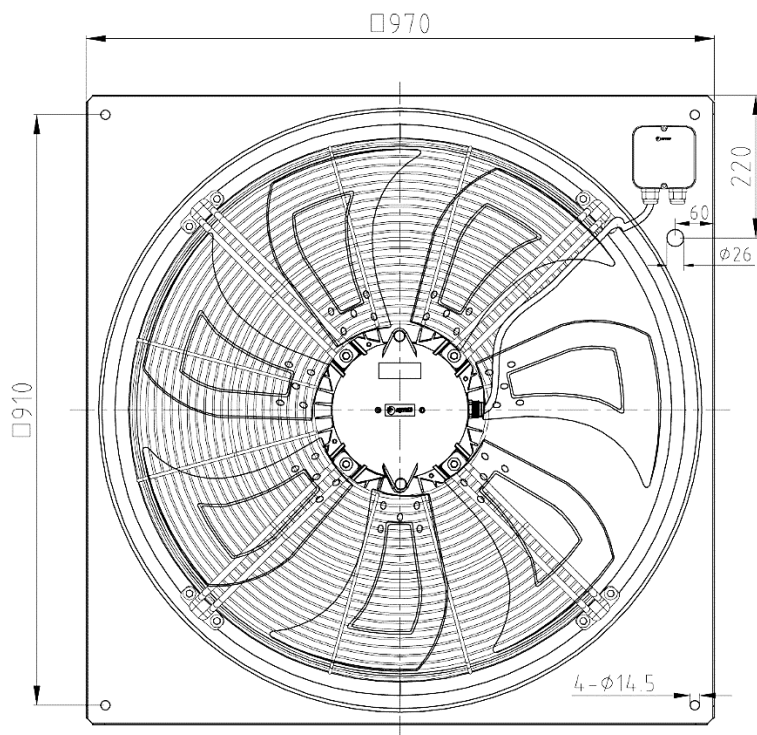


6602PK



HBM/HM condenser

6602RA2



Parts Specification of our coil 熱交換器部品規格

Parts 部品	Specification 規格
Fins 鰭片	Aluminum Alloy 8006 鋁合金 8006
Tubes 管	Copper C1220T 3/8"(HBM),1/2"(HMM) 紫銅管 C1220T 3/8"(HBM),1/2"(HMM)
Casing 箱體	Painted Galvanized Steel G3302 SG-CC 烤漆鍍鋅鋼板 G3302 SG-CC Stainless Steel SUS304(Optional) 不銹鋼板 SUS304 (選購)
Fan motor 風車馬達	IP 55
Anti Corrosion(Optional) 鰭片防蝕 (選購)	EnergyGuard® 衛能防蝕技術

Version 2017.0.1 Subject to change without notice! 資料變更恕不另行通知!



I-Cherng Refrigeration Industrial Co., Ltd.

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Heat Exchanger Taiwan

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