



I-Chereng

Born for Innovative Coils



BFU *series* **BLAST cooler**

for quick freezing application

急速凍結應用蒸發器系列

BFU Series—High efficiency air blast coolers for quick freezing! Fast, High efficient and Reliable!

BFU 系列—高效率急速凍結用蒸發器!

快速、高效率與可靠!

Exterior

This series is specially designed for quick freezing process. Simple and cubic design reserves maximum available space, bright painting casing is easy for cleaning. Stainless steel casing is also available. Integrated fan set speeds up the maintenance work.

Interior

In line tube bank design reduces the pressure drop in coil, maximizes the outlet air flow. With inner grooved tube enhances the efficiency.

All defrost heaters are placed inside the coil with stainless tube for better defrosting efficiency, energy saving and high reliability. Bottom up drain pan heater shortens the exchange work of repair.

All coils are produced with lubricant meets FDA food process requirement.

Functional

All coolers are carefully designed for better refrigerant distribution to achieve the best rating operation.

Germany high efficient axial fan sets optimizes the air flow for better freezing result.

Heating plate concept drain pan heater delivers heat uniformly over the drain pan and prevent air flow bypass.

Defrost from inside out enhances the effect of defrosting and avoid the room temperature fluctuation during defrosting cycle. Optional water defrosting system is on demand.

外觀

此系列機種是專為製成急速凍結用途冷庫所設計。簡單方正的外型設計，創造最大使用空間。明亮烤漆外箱易於清潔維護。亦可選購不銹鋼外箱。一體式外置風車組維修方便快速!

內在

矩形管陣設計降低盤管側的壓損以獲取最大的出風量。全系列內螺紋管設計，性能全面升級。

除霜電熱皆安置於熱交換器內部不銹鋼管，以獲得最佳的除霜效果、節省能源並提高可靠度。

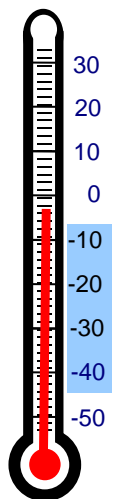
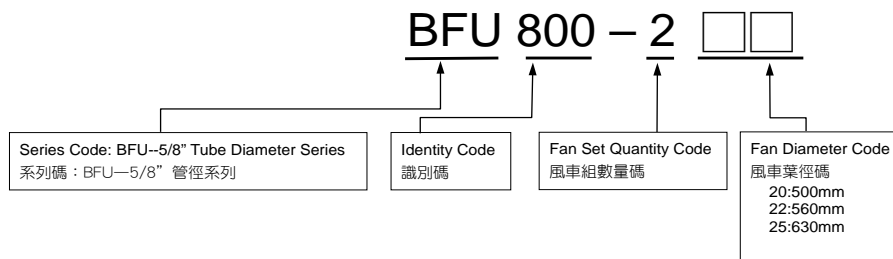
安裝於熱交換器底部的排水盤電熱易於更換維修。所有的盤管製程使用潤滑油符合 FDA 對食品加工的要求。

功能

全系列機種經過詳細設計，使冷媒分佈平均，在額定條件下有最好的效能發揮。

德製高效率軸流風車使氣流最佳化獲得良好的凍結品質。

加熱板概念的排水盤電熱使得導熱更為均勻迅速。由熱交換器內部向外除霜的方式不但提高了除霜的效果，同時在除霜時間可以減少熱量外溢避免冷庫的溫度波動。亦可選購水除霜系統。



50Hz

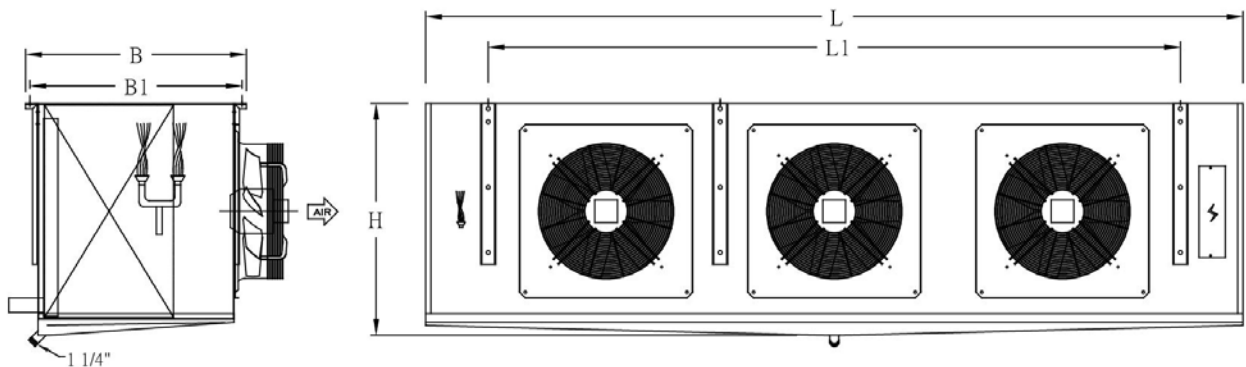
Technical Data

Fin Spacing=10mm
 鰭片間距 =10mm

MODEL 型號	Capacity 能力 kW	Heat Transfer Area 傳熱面積 m ²	Internal Volume 管內容積 liter	Fan 風車			Heater 電熱		
	ET= -32°C TD=7°C			Qty. 數量	Dia. 葉徑 mm	Airflow 風量 cmh	Defrost 除霜 kW	Drain Pan 排水盤 kW	Fan 風車框 kW
BFU240-120	7.05	37	13.2	1	500	7347	4.5	1.5	0.5
BFU320-120	8.40	49.4	17.6	1	500	6845	6.75	1.5	0.5
BFU499-220	14.59	77	27.4	2	500	14833	8.4	2.7	1
BFU665-220	17.50	102.7	36.6	2	500	14016	12.6	2.7	1
BFU730-320	21.90	112.7	40.1	3	500	22020	12	3.6	1.5
BFU973-320	26.29	150	52.7	3	500	20760	18	3.6	1.5
BFU1008-420	29.50	155.6	55.4	4	500	29774	16.2	4.8	2
BFU1344-420	35.38	207.5	73.9	4	500	28125	24.3	4.8	2
BFU360-122	10.74	55.6	19.8	1	560	11900	8.1	16.5	0.5
BFU480-122	12.80	73.9	25.7	1	560	11000	10.8	16.5	0.5
BFU750-222	22.16	115.8	41.2	2	560	23800	15.3	3	1
BFU1000-222	26.76	154.1	53.6	2	560	22500	20.4	3	1
BFU1128-322	33.37	174.2	62.0	3	560	35750	21.6	4.5	1.5
BFU1504-322	40.77	232.2	82.7	3	560	34500	28.8	4.5	1.5
BFU504-125	14.90	77.8	27.7	1	630	14756	10.8	2.25	0.5
BFU672-125	17.85	103.8	37.0	1	630	14344	14.4	2.25	0.5
BFU1008-225	29.96	155.6	55.4	2	630	29502	19.8	4.2	1
BFU1344-225	36.70	207	72.0	2	630	28677	26.4	4.2	1
BFU1440-325	42.90	222.4	79.2	3	630	42541	27	8.7	1.5
BFU1920-325	52.00	296.5	105.6	3	630	40577	36	8.7	1.5

Dimension Data

MODEL 型號	Connection 冷媒接管		Dimension 尺寸 mm			Suspension 吊掛位置 mm	
	In 入	Out 出	L	H	B	L1	B1
BFU240-120	5/8"	1 3/8"	1252	870	905	791	865
BFU320-120	5/8"	1 3/8"	1252	870	905	791	865
BFU499-220	7/8"	1 5/8"	2070	870	905	1609	865
BFU665-220	7/8"	2 1/8"	2070	870	905	1609	865
BFU730-320	1 1/8"	2 1/8"	2798	870	905	2337	865
BFU973-320	1 1/8"	2 1/8"	2798	870	905	2337	865
BFU1008-420	1 1/8"	2 1/8"	3676	870	905	3215	865
BFU1344-420	1 1/8"	2 5/8"	3676	870	905	3215	865
BFU360-122	5/8"	1 3/8"	1404	1070	905	943	865
BFU480-122	7/8"	1 5/8"	1404	1070	905	943	865
BFU750-222	1 1/8"	2 1/8"	2389	1070	905	1928	865
BFU1000-222	1 1/8"	2 1/8"	2389	1070	905	1928	865
BFU1128-322	1 1/8"	2 1/8"	3343	1070	905	2882	865
BFU1504-322	1 3/8"	2 5/8"	3343	1070	905	2882	865
BFU504-125	7/8"	1 5/8"	1768	1070	905	1307	865
BFU672-125	7/8"	2 1/8"	1768	1070	905	1307	865
BFU1008-225	1 1/8"	2 1/8"	3040	1070	905	2579	865
BFU1344-225	1 1/8"	2 5/8"	3040	1070	905	2579	865
BFU1440-325	1 3/8"	2 5/8"	4131	1070	905	3670	865
BFU1920-325	1 3/8"	3 1/8"	4131	1070	905	3670	865



Capacity Selection 能力選擇

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

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

$$Q_r = Q_c \times f$$

Q_r : Rating capacity of unit cooler
 Q_c : Capacity of unit cooler listed on catalog
 f : Correction factor for refrigerant on Table 2

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、空氣進入熱交換器的條件以及表 1 所列的熱交換器進口空氣溫度與蒸發溫度差所計算。

當條件與表 1 所列不同時，請依照下式進行能力修正：

$$Q_r = Q_c \times f$$

Q_r : 蒸發器的額定能力
 Q_c : 蒸發器的型錄能力
 f : 表 2 的冷媒修正係數

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

Application 應用	Evap. Temp. 蒸發溫度 °C	Inlet Air Temp. 空氣溫度 °C	Temp. Difference 溫度差 °C	Inlet Air Humidity 空氣濕度 %RH
Freezing for -25 °C 冷庫庫溫 -25 °C	-32	-25	7	95

Table 2 Correction factor f for different refrigerants
表 2 不同冷媒修正係數 f 值

Evap. Temp. 蒸發溫度 °C	R404A/R507	R134a
-32	1	0.84

Fan Set Performance

風車性能

Our fan set is designed for the better air throw in cold room. All performance listed is for free outlet. It is not designed for installing duct. If you have requirement for install air duct at the air outlet of unit cooler, please contact with us for special design.

我們的風車設計是為了獲得冷庫內最佳的氣流揚程，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。如果需要於風車出口安裝風管，請與我們聯絡。

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

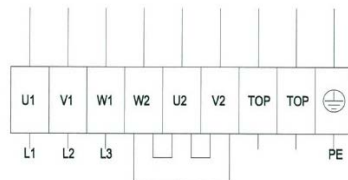
表 3 風車組性能表(單組)

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
50Hz	6601J1	500	795	3 ϕ 230V	2.56
			795	3 ϕ 380V	1.56
	660MX2	560	1750	3 ϕ 230V	5.50
			1750	3 ϕ 380V	3.37
	6601N2	630	2650	3 ϕ 230V	6.67
			2650	3 ϕ 380V	4.06

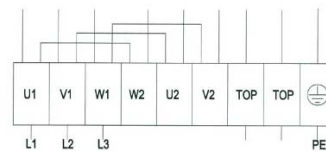
Line for Motor in Different Voltage

馬達電壓接線圖

6601J1/6601N2



3 ϕ 380V



3 ϕ 230V

TOP: Overload Thermal Protector (Inside motor)

⊕: Ground

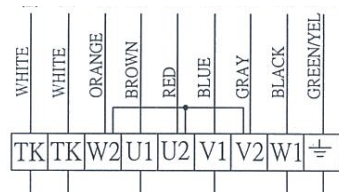
U1, V1, W1: Power Source

TOP: 過載溫度保護開關 (位於馬達內部)

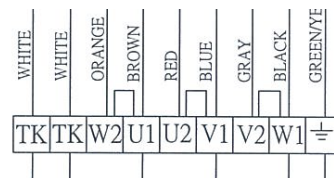
⊕: 接地線

U1, V1, W1: 電源

660MX2



3 ϕ 380V



3 ϕ 230V

TK: Overload Thermal Protector (Inside motor)

⊕: Ground

U1, V1, W1: Power Source

TK: 過載溫度保護開關 (位於馬達內部)

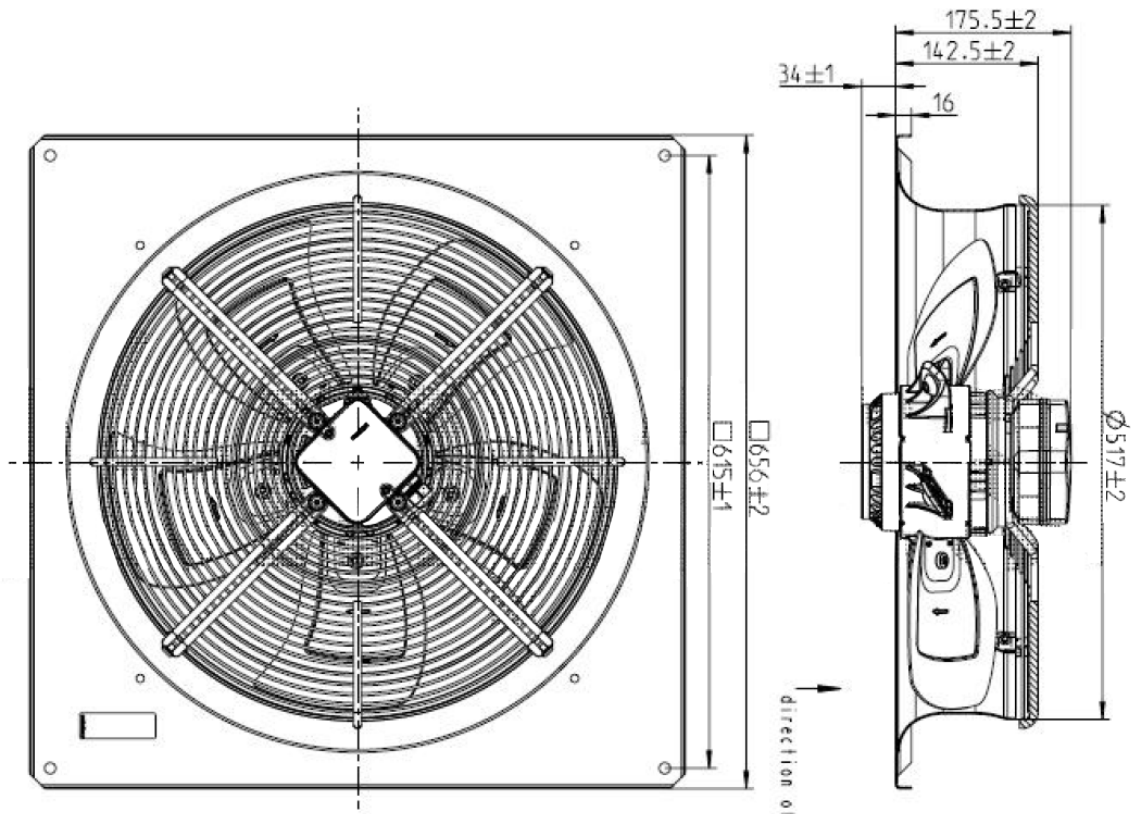
⊕: 接地線

U1, V1, W1: 電源

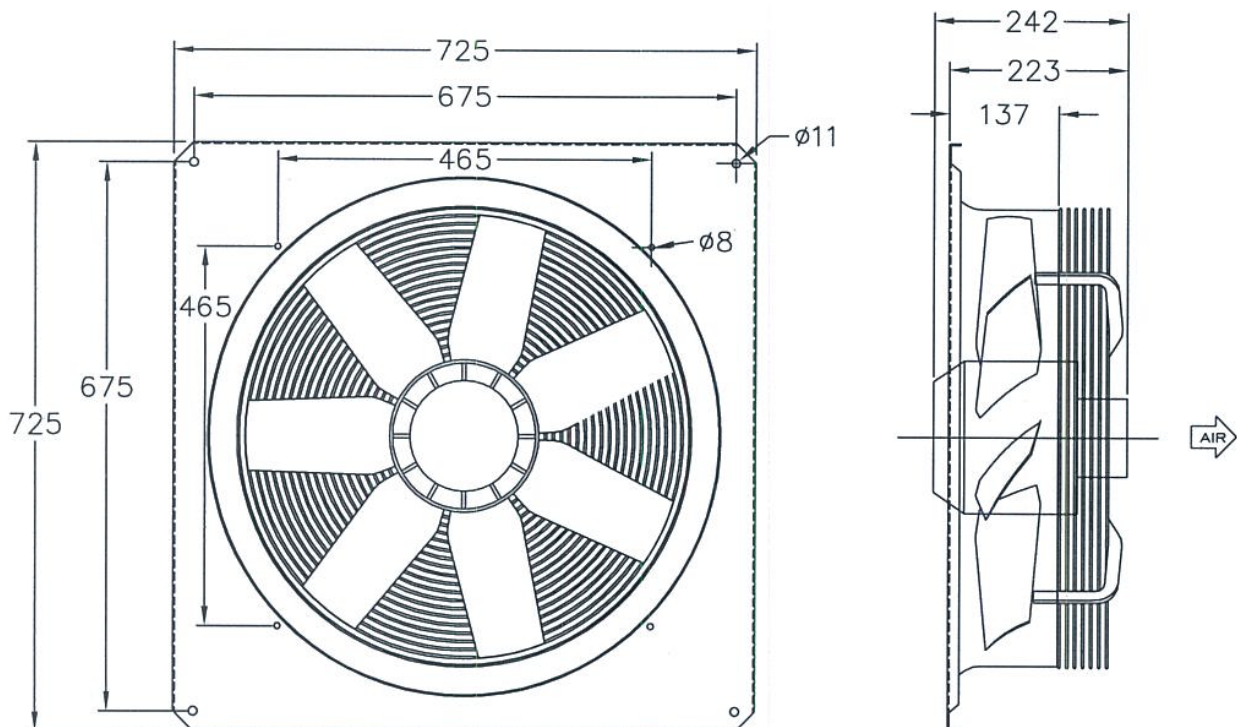
Dimension of Fan set

風車組尺寸

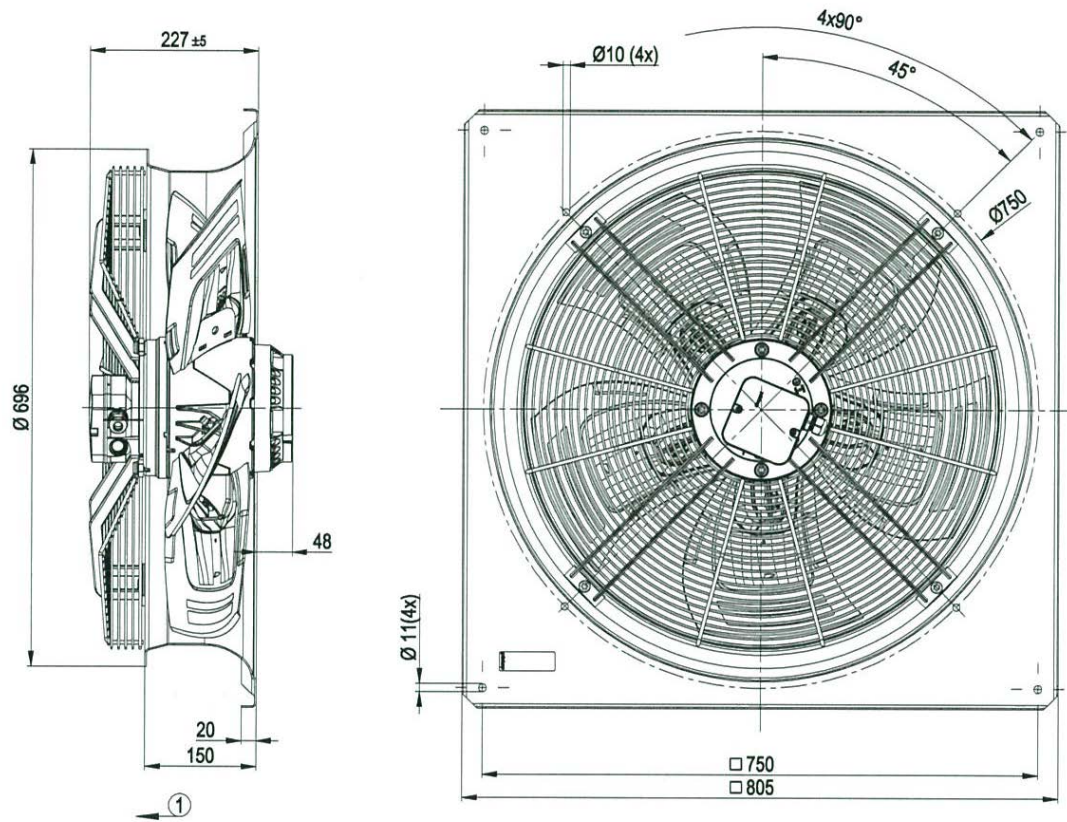
6601J1



660MX2



6601N2



Heater

電熱

Our heaters are all CE certificated. For highest safety requirement, we strongly recommend to ground the unit cooler and install the overheat protector. (Does not come with our product.)

All the defrosting heaters are placed in the coil to achieve the best defrosting result. Our flexible heater is flexible, could be easily replaced. But be sure to reserve the maintenance space 400mm at each side for install the unit cooler.

所有電熱皆符合 CE 安全規範，為確保最高的安全要求，我們強烈建議將蒸發器接地，並安裝過熱保護器（需客戶自行購買產品）。

所有的除霜電熱皆安裝於熱交換器內部以獲得最佳的除霜效能。除霜電熱為可撓性，但安裝蒸發器時，左右請各預留 400mm 的維修空間。

Parts Specification of our unit cooler

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—5/8” 紫銅管 C1220T—5/8”
Casing 箱體	Painted Galvanized Steel G3302 SG-CC/Stainless steel 304(optional) 烤漆鍍鋅鋼板 G3302 SG-CC/不銹鋼 304(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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