



I-Chereng

*Born for Innovative Coils*

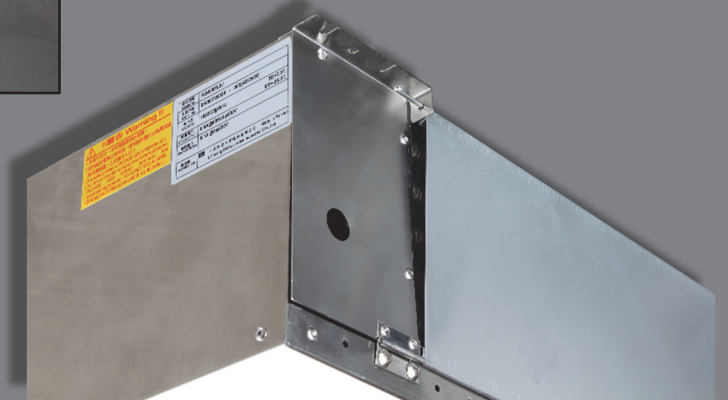
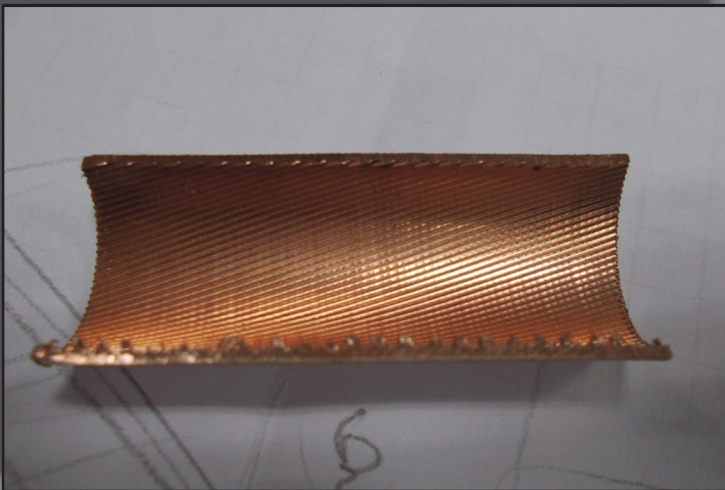


# RGS unit Cooler

For Reach-in showcase application

展示冷櫃用蒸發器系列





Air Guider 導風板

## RGS Series--The most slim unit coolers for show case! Slim, High efficiency and Energy Saving!

## RGS 系列--最纖薄展示冷櫃用蒸發器!

纖薄、高效率與節約能源！

### Exterior

This series is specially designed for reach-in cold storage showcase. Low profile allows the maximum of display space, light casing is easy to install. Outside dimension is less than 170 mm in height and 360 mm in depth, smaller than the previous version. Provide better air circulation. The casing is made of stainless steel 304.

### Interior

Response to the new generation refrigerant, we use the Germany 3/8" inner grooved tube instead of 5/16" copper tube. Reduce the tube side pressure drop to increase the efficiency. As the tube diameter changed, we enlarge the fin pitch to 6.35mm to keep the fan performance.

### Functional

This series is carefully designed for better heat transfer in a small cabin. Circuits are well arranged to avoid vapor and liquid separating in evaporator. With patented air guider, lock heat inside cabin during defrosting cycle. And functions as air flow guider in cooling cycle.

Special casing design maximizes the motor maintenance space.

### 外觀

此系列機種是專為展示冷櫃所設計。纖薄的外型減少安裝空間需求，創造最大化展示空間。輕盈的箱體設計安裝簡便。全系列外型尺寸高度不超過 170mm，箱體深度僅 360mm，較舊系列減少 40mm，提供最佳空氣循環空間。外箱為不銹鋼 304。

### 內在

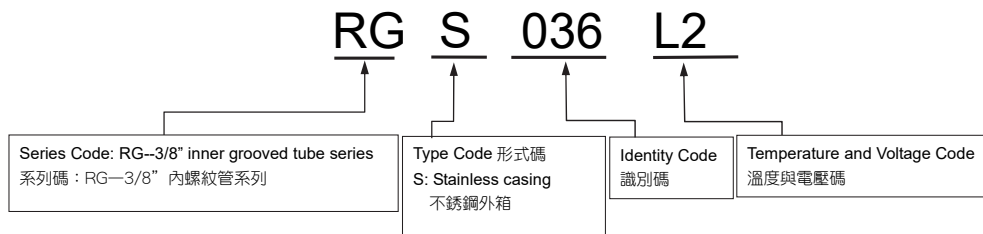
因應新世代環保冷媒，全系列由 5/16"改為德國製造 3/8"內螺紋管，降低壓損提升效率。配合管徑放大，鱗片間距亦放大到 6.35mm，以維持空氣側風機效率並減少霜的累積。

### 功能

全系列機種經過詳細設計，在纖薄箱體內有最好的效能發揮。冷媒迴路經過仔細安排，避免冷媒在蒸發器內有液氣分離的情形。

全系列裝置有專利導板，在除霜循環時此導板將熱能鎖在箱體內提高除霜效果。在冷卻循環時此導板提供了最佳的氣流分佈。

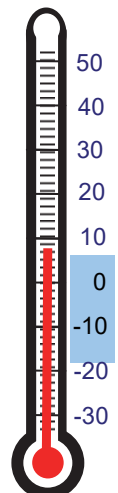
特殊箱體設計提供最大馬達維修空間。



Temperature and Voltage Code 溫度與電壓碼

Code 碼	Room temp. 庫溫	Voltage 電壓
M2	+3°C	220V

Code 碼	Room temp. 庫溫	Voltage 電壓
L2	-18°C	220V



60Hz

## Technical Data

Fin Spacing=6.35mm

鰭片間距 =6.35mm

Medium Temperature Application 冷藏用

MODEL 型號	Capacity 能力 kW	Heat Transfer Area 傳熱面積 m <sup>2</sup>	Tube Volume 管內容積 liters	Fan 風車		
	ET= -5°C TD=8°C			Qty. 數量	Dia. 葉徑 mm	Airflow 風量 cmh
RGS036M2	0.901	2.17	1.042	1	203	450
RGS048M2	1.143	3.02	1.320	1	203	478.8
RGS060M2	1.760	3.68	1.537	2	203	816
RGS087M2	2.179	5.4	2.101	2	203	918
RGS105M2	3.015	6.54	2.476	3	203	1350

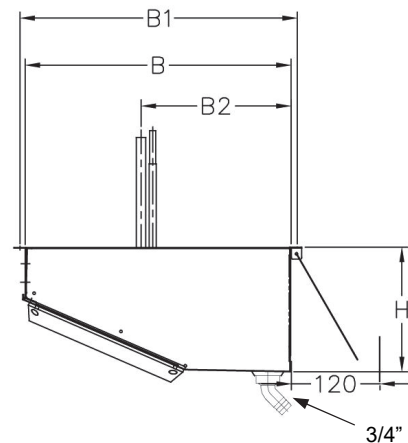
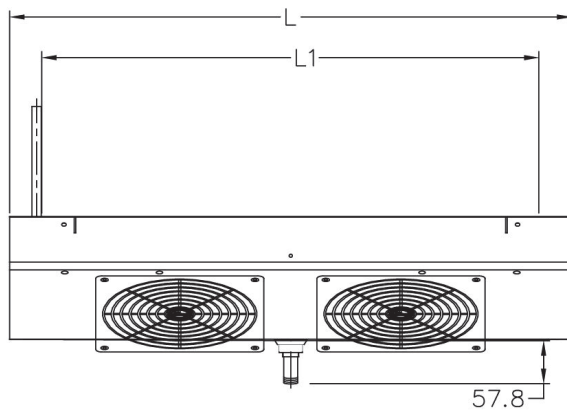
Low Temperature Application 冷凍用

MODEL 型號	Capacity 能力 kW	Heat Transfer Area 傳熱面積 m <sup>2</sup>	Tube Volume 管內容積 liters	Fan 風車			Heater 電熱 kW
	ET= -25°C TD=7°C			Qty. 數量	Dia. 葉徑 mm	Airflow 風量 cmh	
RGS036L2	0.679	2.17	1.042	1	203	450	0.8
RGS048L2	0.824	3.02	1.320	1	203	478.8	0.9
RGS060L2	1.277	3.68	1.537	2	203	816	1.2
RGS087L2	1.592	5.4	2.101	2	203	918	1.4
RGS105L2	2.182	6.54	2.476	3	203	1350	1.6



## Dimension Data

MODEL 型號	Connection 冷媒接管		Dimensions 尺寸 mm				Suspension 吊掛位置 mm	
	In 入	Out 出	L	H	B	B2	L1	B1
RGS036M2/L2	3/8"	1/2"	462	168	360	202	433	375
RGS048M2/L2	3/8"	1/2"	657	168	360	202	628	375
RGS060M2/L2	3/8"	1/2"	762	168	360	202	733	375
RGS087M2/L2	1/2"	5/8"	1035	168	360	202	1006	375
RGS105M2/L2	1/2"	5/8"	1217	168	360	202	1188	375



\*Do reserve 120mm space away from the wall of show case for the best result of air flow.

\*請與展示櫃的壁面保持 120mm 的距離以獲得最佳氣流效果。

## 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
Storage for 3 °C 冷庫庫溫 3 °C	-5	3	8	82
Storage for -18 °C 冷庫庫溫 -18 °C	-25	-18	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
-5	1	0.91
-25	1	0.85

## Fan Set Performance 風車性能

All this series models are equipped with patented flapper. Thus take benefits of better air throw in showcase and high efficient defrosting. All performance listed is for free outlet in showcase. In order to make the best effect of air guider, be sure to keep 120 mm away from back panel of showcase while installation

本系列所有機種皆裝設有專利導板，此導板兼具了提升冷櫃內的揚程與除霜效率們。所有的表列風車能力是依據出口端無障礙物時所獲得。為了使導板發揮最佳效果，安裝時請保持離冷櫃背板 120mm 的距離。

### Air throw comparison with/without Flapper

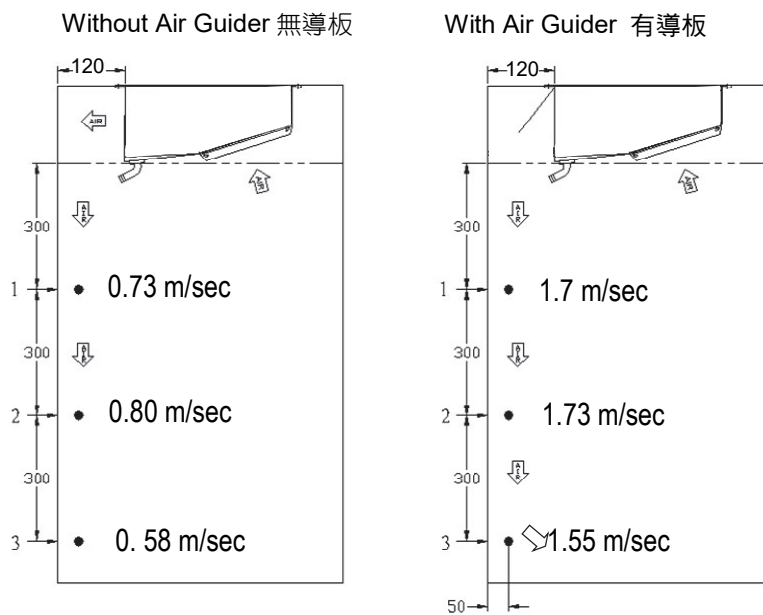


Table 3 Performance table of fan set (for 1set)

表 3 風車組性能表(單組)

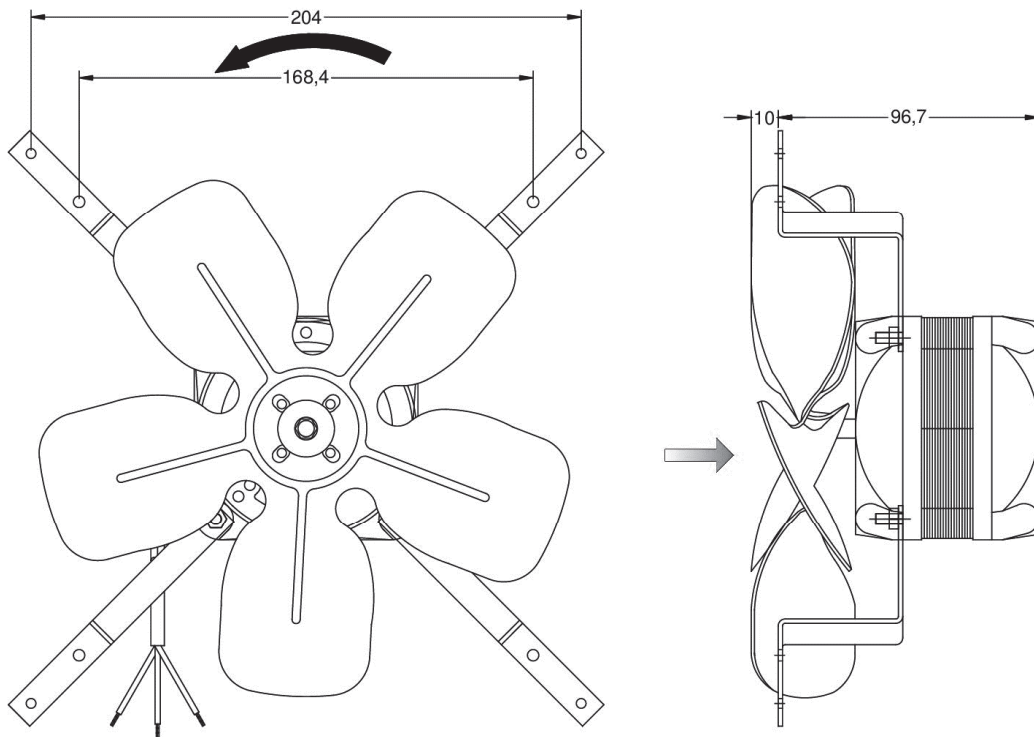
Hz 頻率	Fan Set Model 風車型號	Fan dia. 葉徑 mm	Input 入力 W	Voltage 電壓 V	Rating Current 額定電流 A	Air Throw* 揚程* m
60Hz	6608V	203	9	1φ 220V	0.22	0.9

\* @ velocity=1.5m/sec 風速=1.5 公尺/秒



## Dimension of Fan set 風車組尺寸

6608V



## 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.)

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）。

## Parts Specification of our unit 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" 紫銅管 C1220T—3/8"
Casing 箱體	S=Stainless Steel SUS304 不銹鋼板 SUS304
Fan motor 風車馬達	IP 23
Anti Corrosion(Optional) 鰭片防蝕（選購）	EnergyGuard® 衛能防蝕技術

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I-Cherng Refrigeration Industrial Co., Ltd.

一丞冷凍工業股份有限公司

Heat Exchanger Taiwan 熱交換器 台灣製造

No.12 J Chu Kuang 1st St., Daliao Dist.,

Kaohsiung City, 83164, Taiwan

台灣高雄市大寮區莒光一街 12 號

Tel:07-7873666 Fax:07-7872999

Website: [www.icherng.com.tw](http://www.icherng.com.tw)

Email: [icherng.com@msa.hinet.net](mailto:icherng.com@msa.hinet.net)



*Heat Exchanger Taiwan*

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