

日期：
Date : May.19, 2015

瑞智迴轉式壓縮機承認規格書

RECHI ROTARY COMPRESSOR SPECIFICATION FOR APPROVAL

機種：**50A453V** 外觀：**K-97KH**
Model: _____ *Configuration:* _____

客戶承認欄

Approved by customer

設計變更紀錄 Design Change Record		承認印欄 Signature	承認日期 Date
首次承認 First approval			
冷媒最大充填量 Refrigerant Charge Limit	1740g		
冷媒實際充填量 Actual Refrigerant Charge	g		
如冷媒實際充填量超過冷媒最大充填量時，請貴公司通知瑞智公司作適當處理。 If the system charge refrigerant exceeds the maximum of amount Rechi approved, please notify Rechi Precision Company of satisfying your demands.			

本規格書從貴公司承認之日起生效，請回傳一份影本至瑞智公司存證。

This document will be effective with your authorized signature. Please return one copy as your confirmation with your signature and comments.

承認 Approved by	審查 Reviewed by	擔當 Checked by	製成 Drafted by
			

壓縮機及標準配件清單

List of Compressor & Accessory Parts

名 稱 Part Name	圖 號 Draw. No.	數量 Q'ty	提 供 Supply	備 註 Remarks
壓縮機成品組合 Compressor Assembly	65039K71	1	YES	
開關蓋 Terminal Cover	60100317	1	YES	
開關蓋墊片 Terminal Cover Gasket	60100107	1	YES	
開關蓋墊圈 Terminal Cover Washer	60100201	1	YES	
開關蓋螺帽 Terminal Cover Nut	60100401	1	YES	
腳墊 Isolator Grommet	60140209	3	YES	

附屬規格

Accessory specification

名 稱 Part Name	圖 號 Draw. No.	備 註 Remarks
壓縮機性能曲線 Performance curve	50A453V	
安裝圖 Fitting diagram	61040209	
過負載保護器曲線 Overload Protector Curve	UP3-87	

1. 應用 Application

用 途 Application	窗型、分離式、冷暖氣空調機 Window type, Split type, cooling and heating pump, air conditioner.
冷 媒 Refrigerant	R410A, 1740g Max
電 源 Electrical	220-240 V, 50Hz, 1 PHASE

2. 一般規格 General Specification

壓縮機種類 Compressor type	全密閉式馬達壓縮機 Hermetic motor compressor	
泵種類 Pump type	迴轉式 Rotary	
冷凍機油種類、充填量 Oil、Oil charge	NMOC Ze-Gles RB68EP or equivalent 510 cc ± 10 cc	
塗裝 Painting	黑色 Black	
總重量(含機油) Net weight (oil included)	16.2 kg	(參考值) (For reference)
排氣量 Displacement	21.4 cc/rev	(參考值) (For reference)
氣缸數 No. of cylinder	1	
吸入管內徑 Suction tube I.D.	12.8 ^{+0.2} _{-0.1} mm	
吐出管內徑 Discharge tube I.D.	9.7 ^{+0.2} _{-0.1} mm	

3. 安規認證 Safety Approval

TÜV(Germany)	: R50158292
3C(CHINA)	: (TR) 2015180704000157 (QR) 2015180704000158

4. 馬達規格 Motor Specification

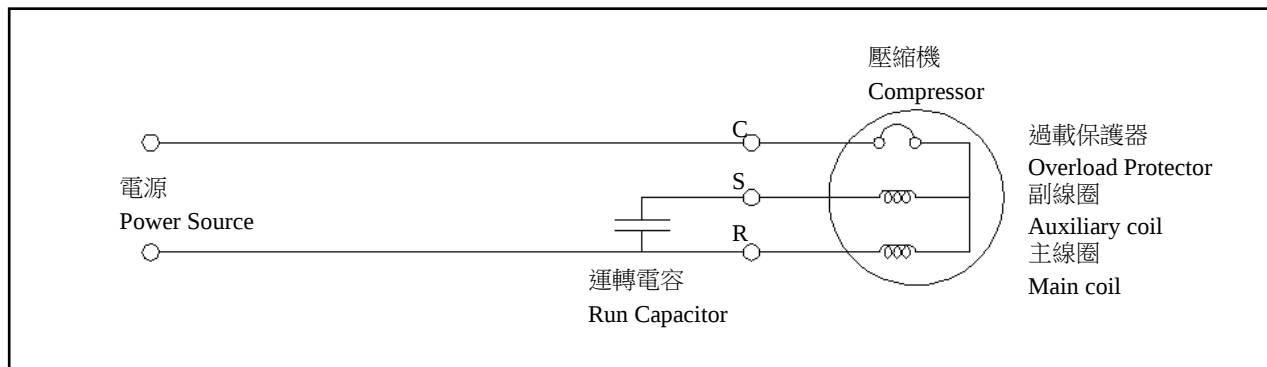
馬達種類 Motor type	單相感應式馬達 Single phase induction motor	
額定電壓, 頻率 Rated voltage , Frequency	220-240 V , 50 Hz	
起動方式 Starting type	永久電容分相式 Permanent split capacitor	
極數 Pole	2	
轉子堵住電流 Locked Rotor current	42.0 A + 10% Max.	
絕緣等級 Insulation Grade	E 級 Grade	
線圈電阻 Winding resistance (25°C)	主 線 圈 Main Winding	1.57 Ω $\pm 7\%$
	副 線 圈 Aux. Winding	3.58 Ω $\pm 7\%$

5. 電器零件規格及配線圖

Electrical Component Specification & Wiring Diagram

過載保護器 Overload protector 內置式 Internal	UP3-87			
	OPEN $\pm 7^{\circ}\text{C}$	CLOSE $\pm 11^{\circ}\text{C}$	U/T A/ $^{\circ}\text{C}$	S/T A/sec (@25 $^{\circ}\text{C}$)
	165	90	16.6~23.6/120	46/3~10
運轉電容器 Run capacitor	35 μF / 370 VAC			
起動輔助器 PTCR start assist	—			

接線圖 Wiring Diagram



6. 性能及特性 Performance and Characteristics

冷凍能力 Cooling Capacity	5240 ± 5 % Watt *	測試條件 Test conditions 凝縮溫度 Condensing Temperature 蒸發溫度 Evaporating Temperature 液態冷媒溫度 Liquid Temperature 吸入溫度 Return Gas Temperature 環境溫度 Ambient Temperature 風速 Air Velocity	220V / 50 Hz 54.4 °C 7.2 °C 46.0 °C 35 °C 35 °C 1 m / sec
	17895 ± 5 % BTU/hr *		
	4510 ± 5 % Kcal/hr *		
消耗電力 Input power	1810 ± 5 % Watt		
電流 Current	8.5 A (參考值) (For reference)		
絕緣阻抗 Insulation resistance	端子與外殼間之電阻值在 50 MΩ 以上。 Resistance between terminals and shell is to be 50 MΩ min.		
耐電壓強度 Dielectric withstand	端子與外殼間施以 1800 volts 1 秒鐘，感動電流在 10 mA 以下。 A potential of 1800 volts is applied for 1 second between terminals and shell, the current induced is to be less than 10 mA.		
冷機起動電壓 Cold starting voltage	壓縮機在 20～35℃ 的周圍環境高低壓平衡狀態下，施以 176 volts 須能起動。 At the condition of balanced pressure, and ambient temperature 20～35℃ , the minimum starting voltage is to be 176 volts.		
熱機再起動電壓 Hot Re-starting voltage	在額定條件下運轉後，高低壓差 0.5 kg/cm ² 內，施以 187 volts 須能起動。 After running at rated conditions, pressure difference within 0.5 kg/cm ² , the minimum starting voltage is to be 187 volts.		
噪音量 Noise level	額定負載條件下，距壓縮機表面 30 cm處，全周平均噪音量在 70 dB(A)以下。 At rated loading conditions, at a distance of 30 cm from compressor surface, average noise is to be less than 70 dB(A).		
振動量 Vibration	空氣開放運轉，壓縮機表面之振動半振幅在 40 μ m 以下。 With discharge tube and suction tube open to atmosphere and powered with rated voltage, the half amplitude of compressor's surface vibration is to be less than 40 μ m.		
氣密壓力 Leak tight pressure	35 kg / cm ² G Min.		
耐液壓強度 Hydrostatic strength	166 kg / cm ² G Min.		
殘留水份 Residual moisture	40 mg Max.	“Karl Fischer” 法	
	100 mg Max.	按國標 GB/T15765-2006 6.8 乾冰測試法	
殘留雜質 Residual impurity	40 mg Max.		
轉子堵住試驗 Locked- rotor test	壓縮機裝上保護器後，於轉子堵住的條件下通電 15 天，不得異常。 The motor compressor with overload protector which operate under locked-rotor condition, is allowed to cycle running continuously for a period of 15 days without abnormality.		

* 1 Kcal/hr = 3.968 Btu/hr = 1.162 Watt.

7. 使用條件 Operation Condition

蒸發溫度 Evaporating temperature (pressure)	-10 ~ 15 °C (壓力範圍 4.8 ~ 11.8 kg/cm ² G)
凝結溫度 Condensing temperature (pressure)	28 ~ 65 °C (壓力範圍 17.3 ~ 42.0 kg/cm ² G)
吸入溫度 Return gas temperature	35 °C Max.
運轉電壓 Voltage range	187 ~ 264 Volts
壓縮比 Compressor ratio	6 Max.
馬達線圈溫度 Motor coil temperature	130 °C Max.
出口管溫度 Discharge tube temperature	115 °C Max.
運轉/停機週程 ON/OFF cycle	連續運轉: 3 分鐘以上, 停機: 3 分鐘以上 ON: 3 minutes min, OFF: 3 minutes min
容許傾斜運轉 Tilt in operation	9° Max.
容許運轉電流 Current in operation	14.5 A Max.
液態冷媒迴流 Liquid refrigerant flood back	運轉中不得有液態冷媒吸入缸體。如液態冷媒產生, 需另裝一儲液器或減少冷媒充填量, 以防止液態冷媒迴流。 In operation, liquid refrigerant is not allowed to flood back to the cylinder chamber. In case liquid refrigerant occurs, it should be equipped with another accumulator or/and refrigerant charge should be reduced to prevent liquid refrigerant back.
異常噪音 Abnormal noise	運轉中不得有異常噪音發生。 In operation, abnormal noise is not allowed.

註: 各項電壓條件, 以壓縮機端子處的電壓為準。

The voltage should be measured across the compressor connection terminal.

8. 使用注意事項 Operation Notice

機油 Oil	所有壓縮機之冷凍油均經去水, 淨化處理, 請勿添加額外機油。 The oil is meticulously cleaned and is free from air and moisture. Don't add contaminated oil into compressor.
防衝擊 Against from impact	施於壓縮機之衝擊不得超過 30G。 The impact load applied upon the compressor should not more than 30G.
防濕氣 Against from moisture	壓縮機管塞取下後, 於 10 分鐘內裝入系統。 After the rubber plugs are removed from the compressor, braze the pipes to the unit within 10 minutes.
空氣壓縮 Air compressing	勿將此壓縮機作空氣壓縮用。 Never start the compressor as an air compressor.
儲存時間 Storage period	此壓縮機須製造日期起一年內裝入系統。 Install the compressor in the refrigeration system within 1 year from the manufactured date which is written on the compressor.
有效期限 Duration of effectiveness	本規格書在貴公司簽字承認後正式生效, 如有設計變更經貴公司承認, 本規格書自動無效。 This document will be effective with your authorized signature. When further design modification is approved by the customer, this document will be unavailable automatically.

性能曲線圖

Performance Curve

機型

50A453V

Model

電源

220V / 50Hz / 1PH

Power Supply

運轉電容

35 μ F/370VAC

Run Capacitor

吸入溫度

35°C

Return Gas Temperature

過冷度

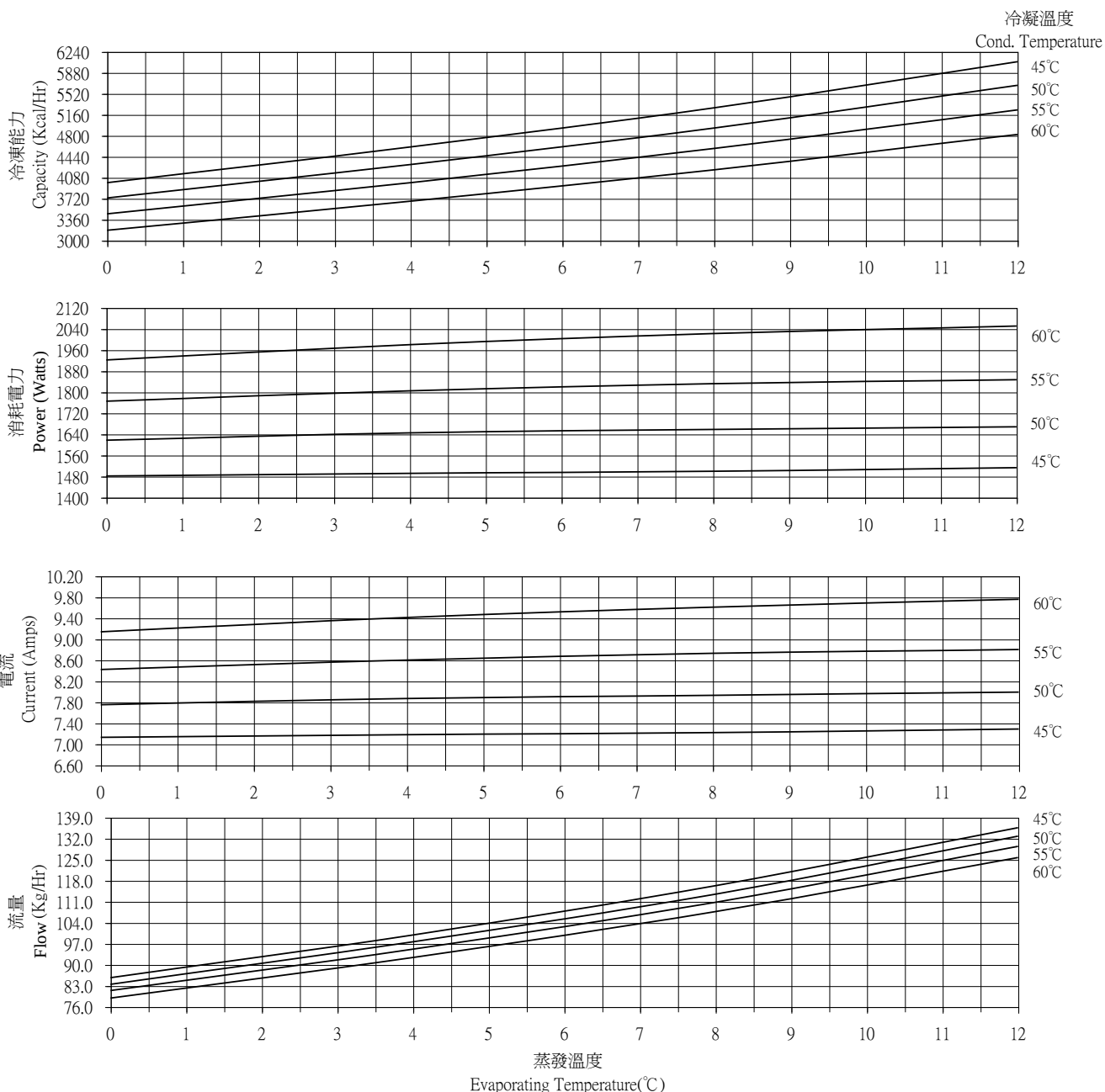
8.3°C

Subcooling

週圍溫度

35°C

Ambient Temperature



承認
APPROVED

審查
CHECKED

製成
DRAFTED

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2009.05.05
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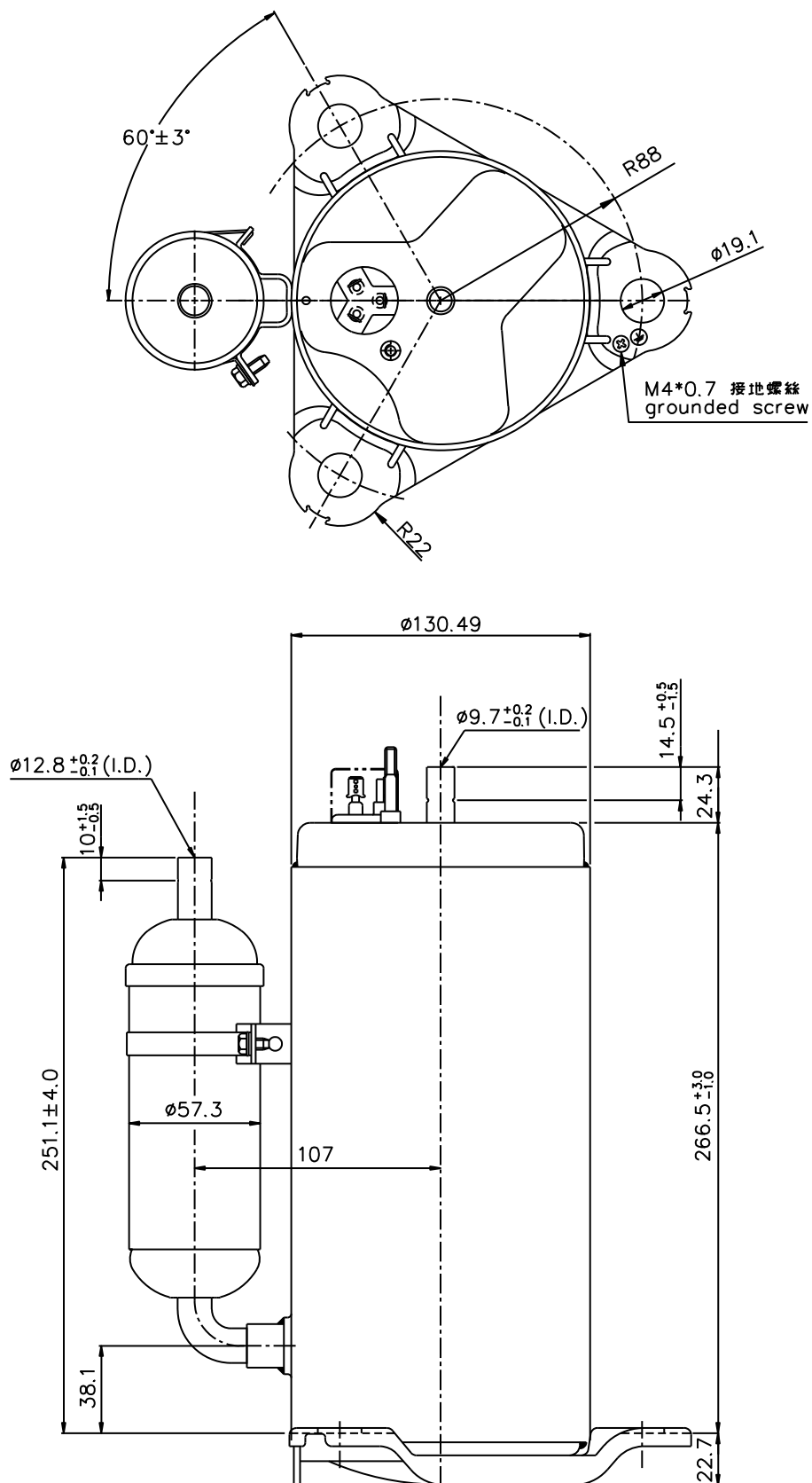
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圖名 Dwg. Name

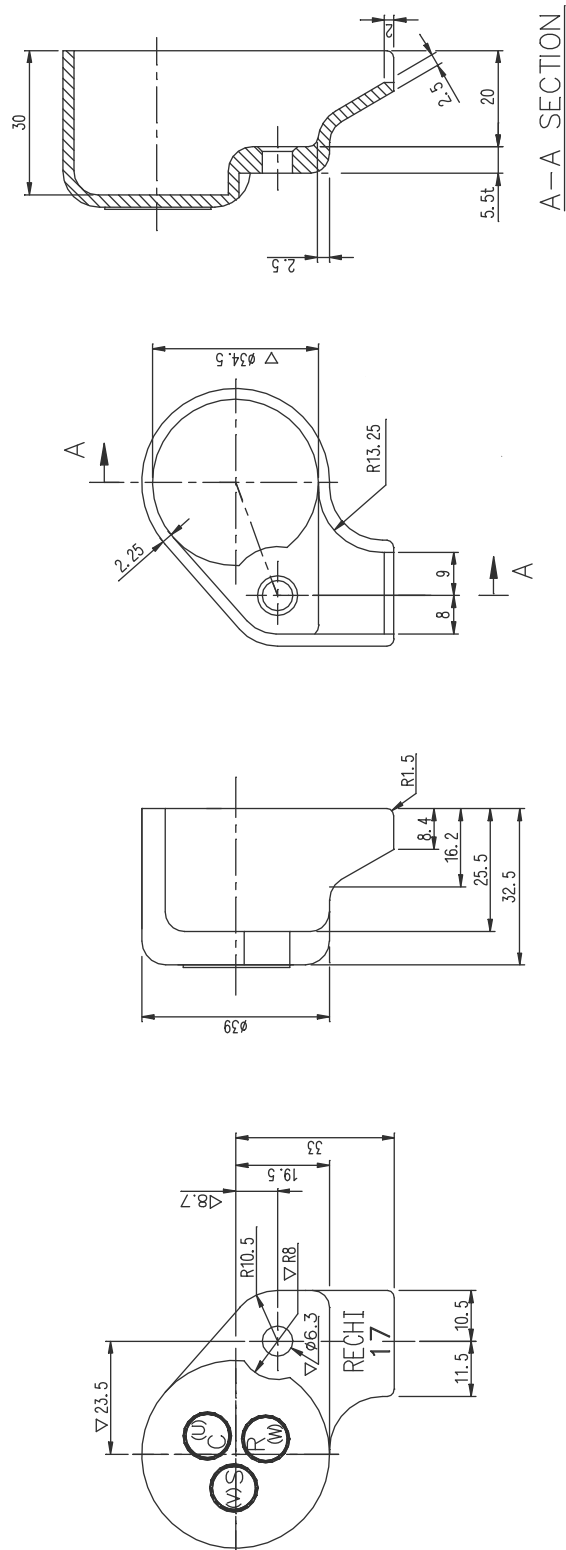
圖號 Dwg. No.

性能曲線圖

50A453V



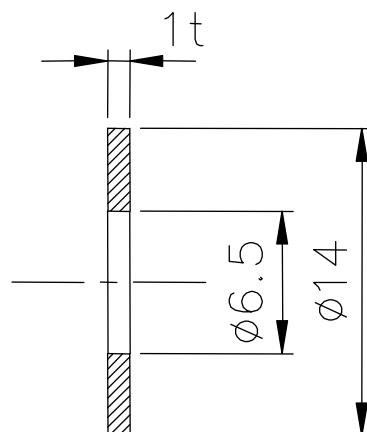
承認 APPROVED	審查 CHECKED	製成 DRAFTED		
			圖名 Dwg. Name	
			圖號 Dwg. No.	
			壓縮機外觀圖 Compressor outline drawing	65039K71



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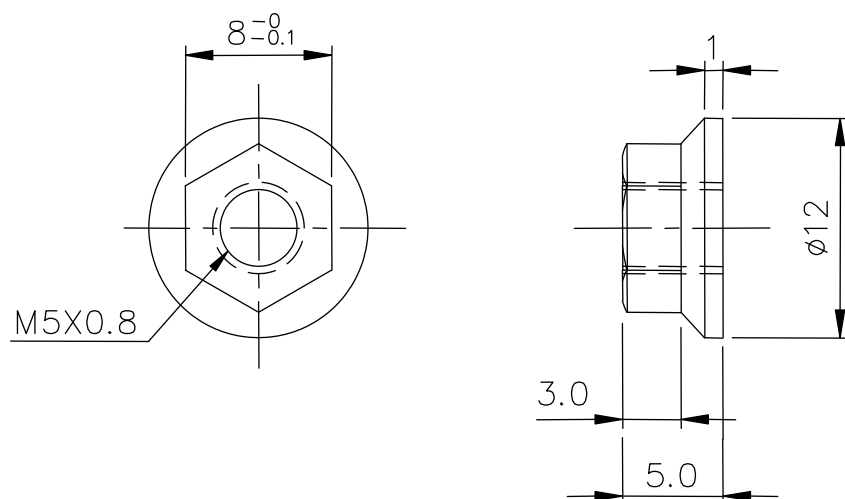
1. 材料(Material): PET
2. 需符合(Must. Match) UL 94-5VA

承認 APPROVED	審查 CHECKED	製成 DRAFTED		
			圖名 Dwg. Name	圖號 Dwg. No.
			開關蓋 Terminal Cover	60100317



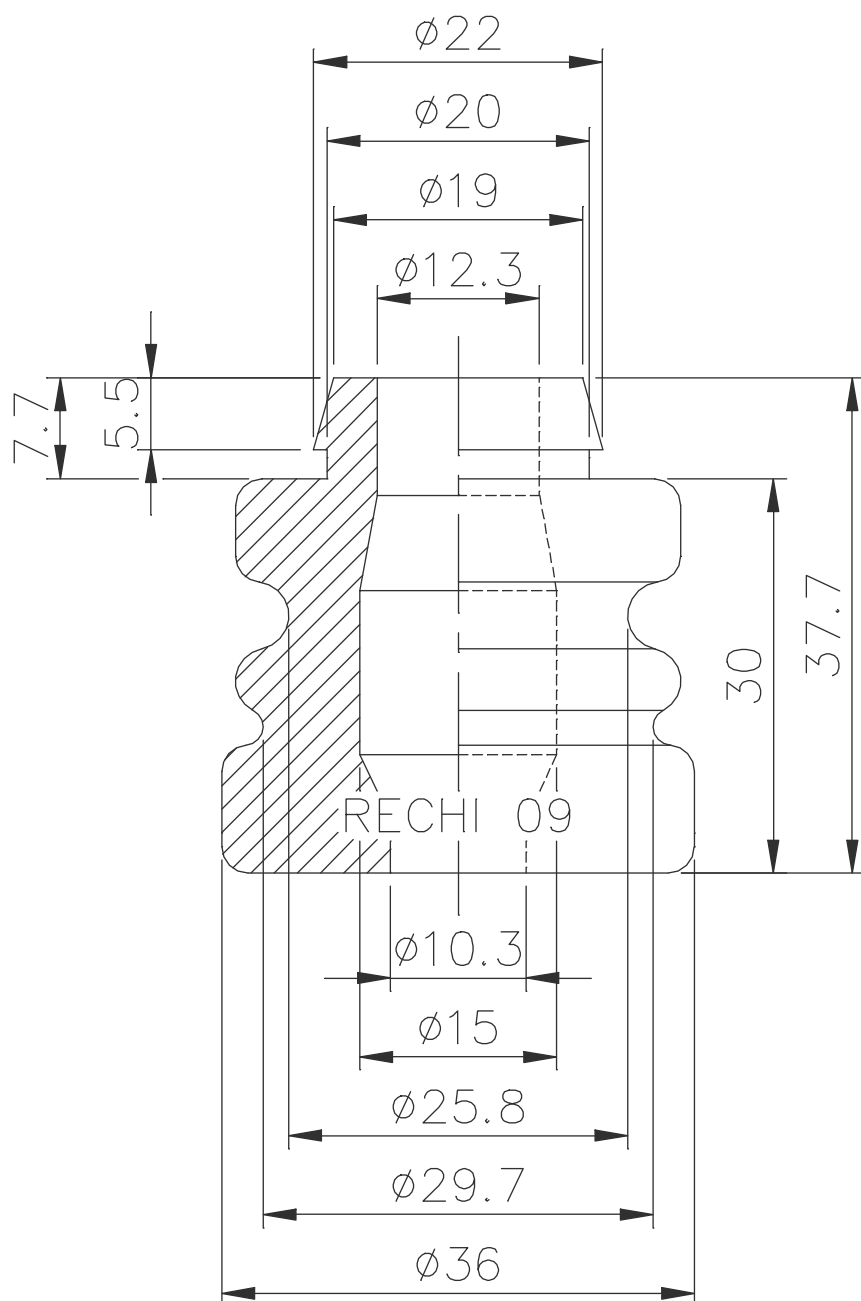
註(Note) : 1. 材料(Material) : 橡膠(Rubber)

承認 APPROVED	審查 CHECKED	製成 DRAFTED		
				
			圖名 Dwg. Name	圖號 Dwg. No.
			開關蓋墊圈 Terminal Cover Washer	60100201



註(Note) : 1. 材料(Material) : AISI 1020

承認 APPROVED	審查 CHECKED	製成 DRAFTED		
			圖名 Dwg. Name	圖號 Dwg. No.
			開關蓋螺帽 Terminal Cover Nut	60100401

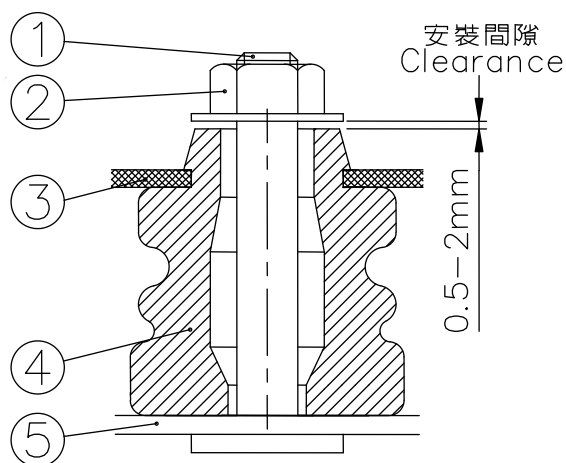


註(NOTE): 1.材料 (Material): EPDM
2.硬度(Hardness): 35° $\pm$ 2

承認 APPROVED	審查 CHECKED	製成 DRAFTED		
			圖名 Dwg. Name	圖號 Dwg. No.
			腳墊 Isolator Grommet	60140209

腳座安裝圖

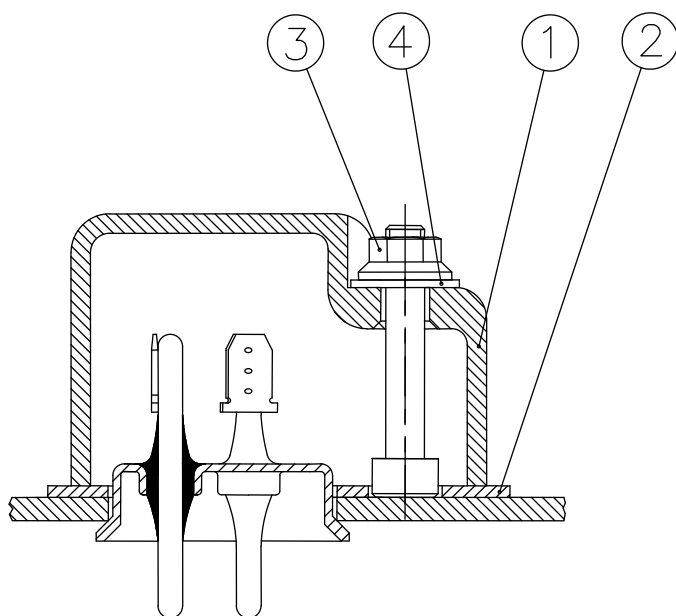
Mounting Diagram



1	螺栓 Mounting Bolt
2	螺帽 Nut
3	壓縮機腳座 Compressor Base
4	腳墊 Isolator Grommet
5	冷氣機底座 Base Plate

開關蓋安裝圖

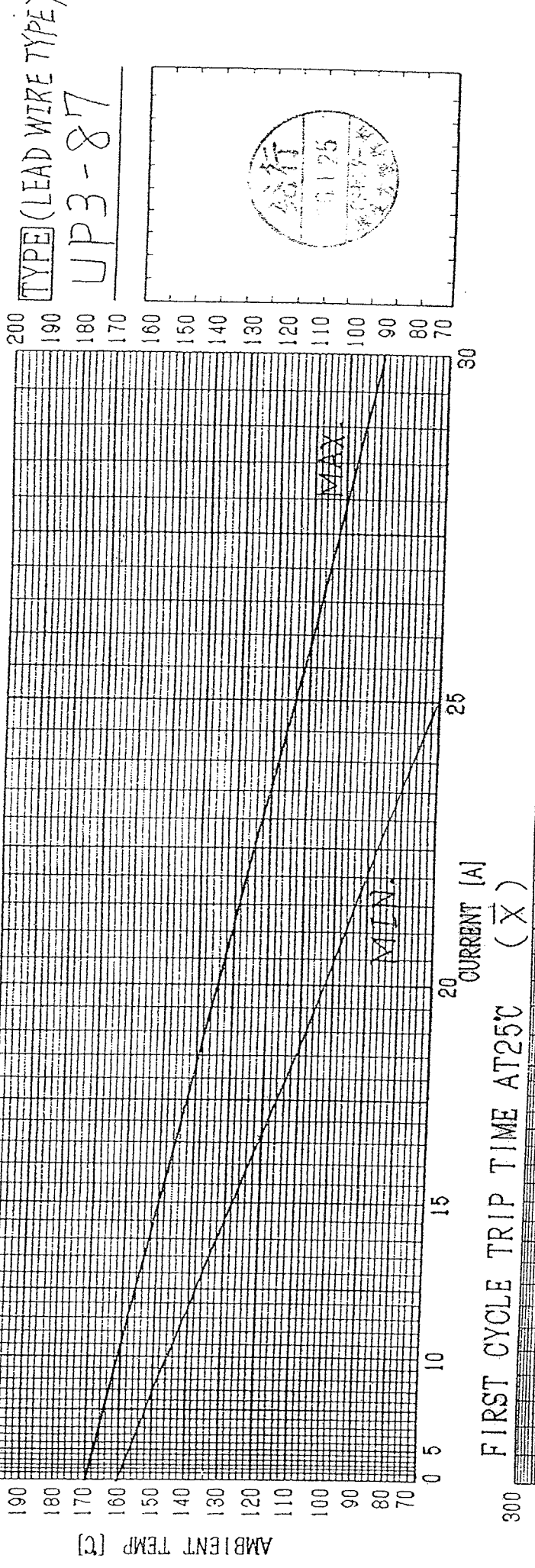
Terminal Cover Assembly



1	開關蓋 Terminal Cover
2	開關蓋墊片 T.C.Gasket
3	開關蓋螺帽 T.C.Nut
4	開關蓋墊圈 T.C.Washer

承認 APPROVED	審查 CHECKED	製成 DRAFTED		
			圖名 Dwg. Name	
			圖號 Dwg. No.	
			安裝圖 Fitting diagram	61040209

ULTIMATE TRIP CURRENT IN OIL



FIRST CYCLE TRIP TIME AT 25°C

