客户(CUSTOMER)：珠海格力电器股份有限公司(GREE)

□TOSOT 物料代码_____

□ GREE 物料代码_____

压 缩 机 规 格 书

COMPRESSOR SPECIFICATION

型号(MODEL)：**QXA-B141zF030**

供方确认（ SUPPLIER CONFIRMATION）

编制 (DESIGNED BY)：张洪玮

审核 (CHECKED BY)：肖胜宇

标准化(STANDARDIZED BY) ：李晓平

审定 (PROVED BY)：赵旭敏

批准(APPROVED BY)：魏会军

珠海凌达压缩机有限公司

ZHUHAI LANDA COMPRESSOR CO., LTD.

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适用范围

- 适用范围 APPLICATION

  此规格适用于 QXA-B141zF030 全封闭式压缩机

  This specification is applied to QXA-B141zF030rotary compressor.

用途 Application	房间空调器 Room air-conditioner
冷媒 Refrigerant	R410A
最大冷媒充注量 Refrigerant charge limit	1400g MAX
控制器输入端额定电压/相数 Controller Input Rated Voltage/ Phase	220V/50HZ/1 PHASE
压缩机运行机械频率 Compressor Operation Frequency	15~120Hz

规格特性

1. 压缩机规格 COMPRESSOR DATA

压缩机类型 Compressor type	全封闭型电动机压缩机 Hermetic motor compressor	
泵体类型 Pump type	旋转式 Rotary	
气缸数 The number of cylinders	单缸 single cylinder	
气缸名义工作容积 Cylinder nominal volume	14.1	cm^3
冷冻油牌号 Brand of refrigerant oil	RB68EP	
冷冻油充注量 Refrigerant oil charge	370	ml
重量(含冷冻油) Weight(Refrigerant oil included)	9.9	kg
吸气管内径 Suction pipe I.D.	Φ12.2±0.05	mm
排气管内径 Discharge pipe I.D.	Φ9.7±0.06	mm

2. 电机规格 MOTOR DATA

<table>
<tr><td colspan="2">电机类型
Motor type</td><td colspan="3">永磁同步电机
Permanent Magnet Synchronous Motor</td></tr>
<tr><td colspan="2">启动类型
Starting type</td><td colspan="3">直流变频控制器
DC variable frequency controller</td></tr>
<tr><td colspan="2">极数
Pole</td><td colspan="3">6 poles</td></tr>
<tr><td colspan="2">额定输出功率(60Hz)
Rated output power(60Hz)</td><td colspan="3">1215 W</td></tr>
<tr><td colspan="2">额定转速(60Hz)
Rated speed(60Hz)</td><td colspan="3">3600 rpm</td></tr>
<tr><td colspan="2">磁通（线间）
Magnetic flux (Line)</td><td colspan="3">296 mWb</td></tr>
<tr><td colspan="2">电压常数（线间）
Voltage constant (Line)</td><td colspan="3">32.9 mV/rpm</td></tr>
<tr><td colspan="2">转矩常数
Torque constant</td><td colspan="3">0.54 N.m/A</td></tr>
<tr><td colspan="2">转动惯量
Moment of inertia</td><td colspan="3">617 kg.mm^2</td></tr>
<tr><td colspan="2">绕组电阻（25℃）
Winding resistance</td><td colspan="3">UV 绕组电阻1.22±7%Ω
VW 绕组电阻1.22±7%Ω
WU 绕组电阻 1.22±7%Ω</td></tr>
<tr><td colspan="2">绝缘等级
Insulation class</td><td colspan="3">B</td></tr>
<tr><td colspan="2" rowspan="4">电感量测定结果
（测定频率： 50 Hz）
The result of inductance test(50Hz)</td><td rowspan="2">电流
Current</td><td colspan="2">电感（mh）
Inductance（mh）</td></tr>
<tr><td>Ld</td><td>Lq</td></tr>
<tr><td>2.5A</td><td>10.08</td><td>16.92</td></tr>
<tr><td>5.0A</td><td>10.56</td><td>16.36</td></tr>
<tr><td>7.5A</td><td>10.31</td><td>14.53</td></tr>
<tr><td rowspan="3">退磁电流（电机每相）
Demagnetizing current（Motor Phase）</td><td>环境温度
Environment temperature</td><td colspan="3">-20℃</td></tr>
<tr><td>保护推荐电流
Recommended protection current</td><td colspan="3">18A MAX</td></tr>
<tr><td>每相容许电流(RMS)
Allowed phase current (RMS)</td><td colspan="3">10A</td></tr>
</table>

3. 电器部品 ELECTRICAL COMPONENT

名 称 Name	规 格 Specification	动作温度℃ Operating temperature	复位温度℃ Reset temperature
过载保护器 Overload protector	1NT11L-6233	115±3	95±5
	KSD115℃		
	HPC115/95U1		

4. 性能 PERFORMANCE

➢ 额定性能 RATED PERFORMANCE

性能参数 Performance parameter	额定值(60Hz)	
转速 Speeds of rotation	3600	r/min
制冷量 Capacity	4240±3%	W
控制器端输入功率 Controller Input power	1460±3%	W
能效比 C.O.P.	2.90	W/W
输入控制器电流 Driver input current	8±10%	A
噪音（A 计权声压级噪音值） Noise(A weighed sound power)	≤75	dB
振动（切向加速度） Vibration(Tangential acceleration)	≤20	m/s^2

➢ 一般性能 GENERAL PERFORMANCE

运行电压范围（控制器内部 PWM） Range of Run voltage（Inside Controller PWM）	DC 260-350 V
压缩机开停次数 Compressor cycle	≥10000
气密性试验压力 Leak test pressure	4.3~4.5
残余水份含量 Residual moisture content	≤100
杂质含量 Impurity content	≤100

➢ 安全性能 SAFETY PERFORMANCE

电气强度 Electrical strength	1500V/min 或 1800V/s,泄漏电流不大于 5mA 1500V/min or 1800V/s,leak current less than 5mA	
壳体耐压试验压力 Shell test pressure	＞15.86	MPa
绝缘电阻 Insulation resistance	＞500	MΩ
接地电阻 Grounding resistance	≤0.1	Ω

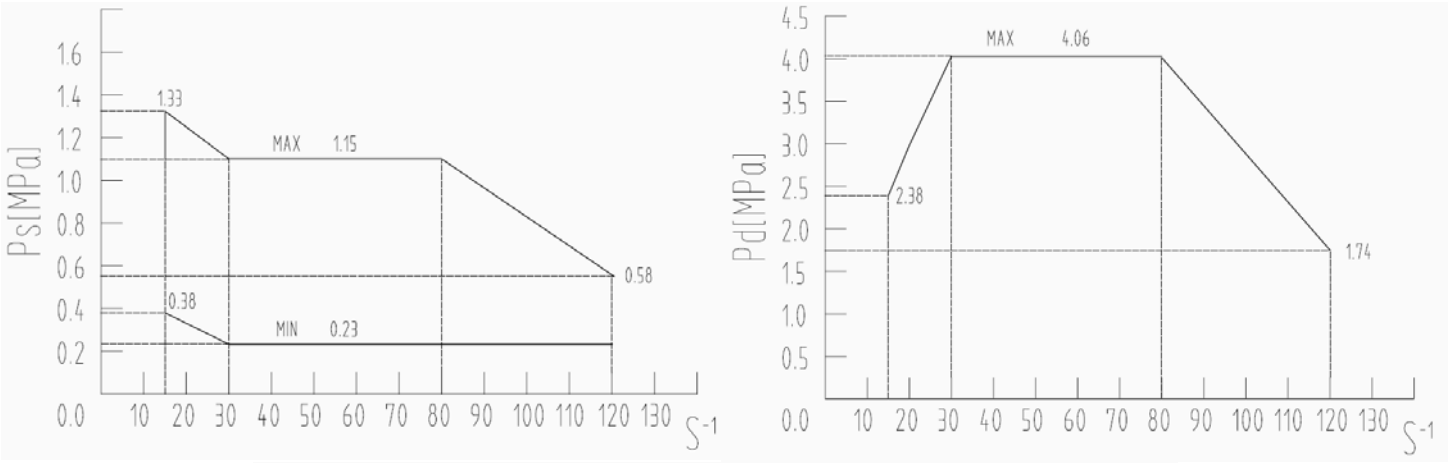
➢ 制冷量测试工况 CAPACITY TESTING CONDITION

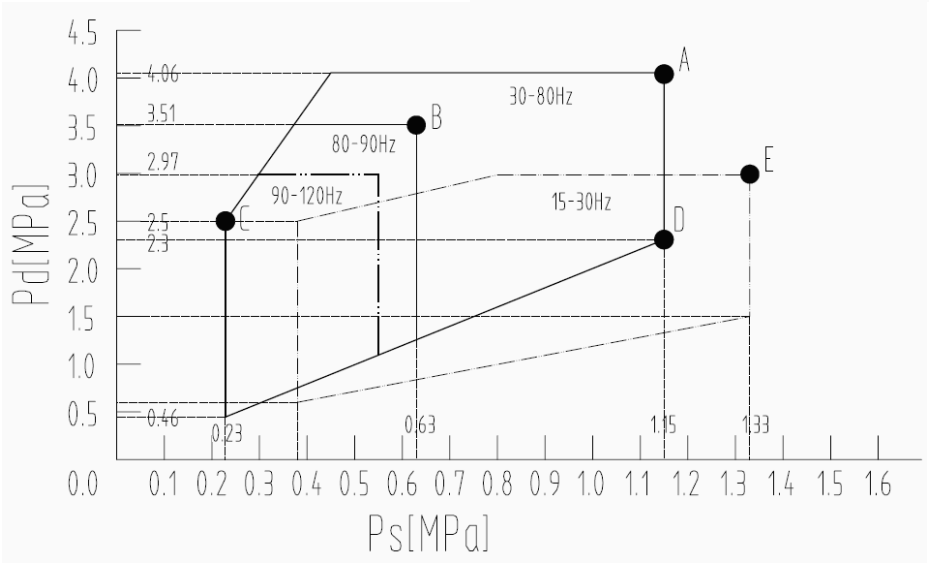
测试电源（输入控制器） Testing power supply（Input driver）	220V/50Hz
蒸发温度 Evaporating Temp.	7.2℃
冷凝温度 Condensing Temp.	54.4℃
液体温度 Liquid Temp.	46.1℃
吸气温度 Suction Temp.	35.0℃
环境温度 Ambient Temp.	35.0℃
测试风速 Testing air flow	2m/s

5. 使用条件 APPLICATION CONDITION

蒸发温度范围 Evaporating Temp.	－15℃～＋15℃
冷凝温度范围 Condensing Temp.	27℃～68℃
最大压缩比 Maximum compression ratio	6.5
排气温度 Discharging Temp.	115℃ MAX
电机绕组温度 Motor winding Temp.	130℃ MAX

6. 许可运行压力范围 Range of operating pressure





7. 过载保护器特性 Overload protector property

动作特性 Action characteristic	动作温度 Action temperature	115 °C±3 °C
	复位温度 Reset temperature	95 °C±5 °C

注意事项

- 压缩机使用注意事项 PRECAUTIONS ON OPERATION

1. 压缩机内部已封入了 0.025～0.05MPa（表压）的干燥氮气，使用时应先拔掉高压侧(排气管)的橡胶塞，否则冷冻油会喷出压缩机。
   Compressor is charged with 0.025～0.05MPa dry nitrogen , remove high pressure side (discharge tube side) rubber plug first before application, otherwise refrigerant oil will gush from the compressor.

2. 不得有水溅入压缩机内。
   The compressor should not be splashed with water inside.

3. 压缩机不得在空气中持续打开 15 分钟以上。
   The compressor should not be left open in the atmosphere for more than 15 minutes.

4. 压缩机不得自身抽真空及空运转，系统抽真空应保证抽到绝对压力为 133Pa 以下。
   The compressor should not be operated to form a vacuum or to absorb air; the evacuation of the system shall ensure that absolute pressure is below 133Pa..

5. 当压缩机处于真空状态下，不应向密封接线柱上加电脉冲。
   The electric pulse should not be applied to the hermetic terminals when the compressor is under vacuum.

6. 压缩机与配管，配管与配管之间的焊接应注意决不能让焊药、灰尘等杂质进入制冷系统。
   Take care that the foreign matters like solder, dust, etc will not get into the refrigerating system from soldering/welding joints between compressor and piping, as well as between piping.

7. 只使用规定的制冷剂 R410A，制冷剂应从制冷系统冷凝器的尾端注入，而不能直接注入压缩机，当制冷剂量超出规定值时，应同我公司联系。
   Only R410A is permitted. Refrigerant should be charged from the end of the condenser of the refrigerating systems. Never charge refrigerant to the compressor directly. When the charge amount exceeds designated value, contact us.

8. 在压缩机稳定运行时，系统内温度不应低于-35℃，以防止油中蜡的成分沉淀。
   Temperature within systems during stable compressor operation should not be less than -35℃ to prevent the wax in the oil from precipitation.

9. 压缩机起动运行前应确保接线正确，每两次起动应间隔 3 分钟以上，绝对禁止压缩机反向运转和在空气中运行；载波频率必须不能引起压缩机共振；建议压缩机运行加速度变化范围在 2rps/s 以内。
   Make sure that wiring is correct before starting the compressor, the duration between two start-ups shall exceed three minutes, it is forbidden to run compressor in reverse direction and in the air; and carrier wave frequency must not arise the resonance; suggest that the compressor acceleration shall be controlled within 2rps/s.

10. 在装配系统时应保证系统洁净，为防止毛细管等堵住，必须在制冷回路中装上过滤器。
Keep the system clean during assembly, the filter shall be assembled into the refrigerating loop to prevent block up of capillary tube etc.

11. 压缩机已装入了规定的适量冷冻油，使用时不得增加或减少。
Do not reduce or increase the refrigerant oil during application as the compressor has been charged with specified amount of oil.

12. 为保证制冷系统的油流回压缩机，在设计管路时气体的最小速度，水平管内为 4m/s，竖直管内为 7m/s。
To ensure the oil inside the refrigerating system returns to compressor, when designing the piping, the minimum gas velocity is 4m/s for horizontal pipe，and is 7m/s for vertical pipe.

13. 为了防止磁铁退磁，在设计变频系统时必须保证转子内的永久磁铁在任何情况下都不会被退磁；必须使用专用的变频器，一定不能使用感应电机所用的变频器或（直接）使用商用电源。
In order to prevent the permanent magnet to be demagnetised, the frequency conversion system must ensure the permanent magnet not be demagnetised in any situation; use the special transducer, do not use a induction motor transducer, and do not use commercial power supply.

14. 为了防止制冷剂液体积蓄在压缩机中，应保证压缩机壳体底部的温度大于冷凝温度。
To prevent the liquid refrigerant accumulation in the compressor, ensure that the temperature at bottom of compressor case is higher than the condensing temperature.

15. 运行电压必须在 260~350VDC 范围之内。
The running voltage shall be within 260~350VDC.

16. 运行频率必须在 15~120Hz 的范围之内。
The running frequency shall be within 15~120Hz.

17. 压缩机在倾斜角 5°范围内可以正常运转。
The compressor shall operate properly with tilting angle below 5°.

18. 禁止压缩机横放、倒置、跌落，不要把压缩机放置在露天，必须将压缩机存放在-10℃～＋65℃的室内。
Do not put the compressor horizontally or put it upside down. Do not let the compressor falls off. Do not put the compressor in the open air, put the compressor inside the room where the temperatures inside range between -10℃～＋65℃.

附件及图纸

1. 压缩机附件 ACCESSORIES

名 称 Name	数 量 Quantity	说 明 Description
接线柱护盖 Terminal cover	1	已配备 Loaded
螺母 Nut	1	已配备 Loaded
减振垫圈 Grommet	3	已配备 Loaded
绝缘垫 Gasket	1	已配备 Loaded
过载保护器 Overload protector	1	已配备 Loaded

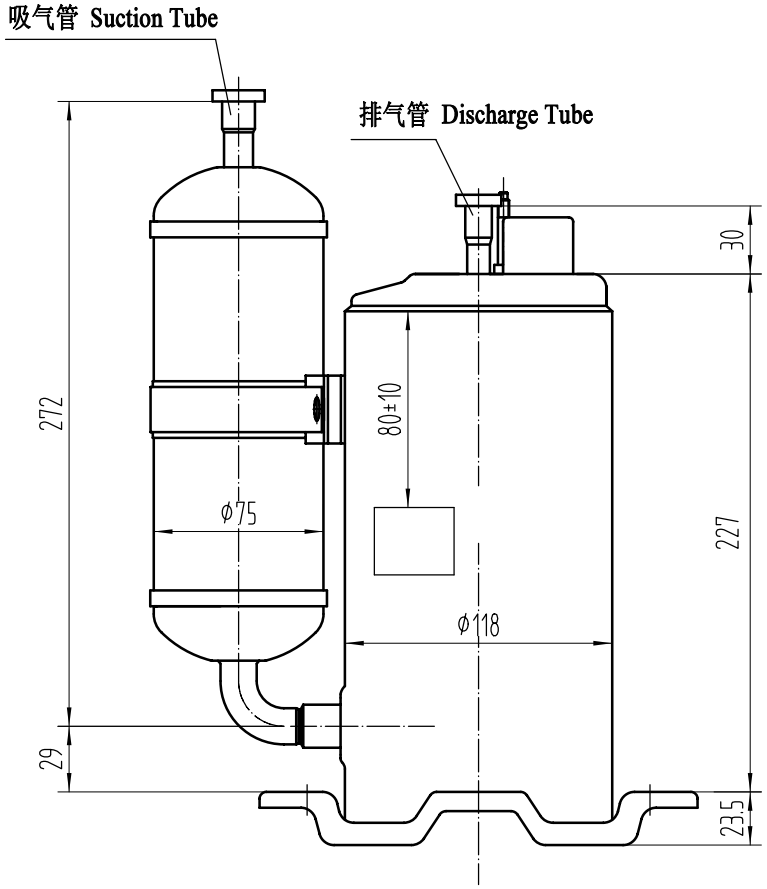
2. 压缩机相关图纸 DRAWINGS

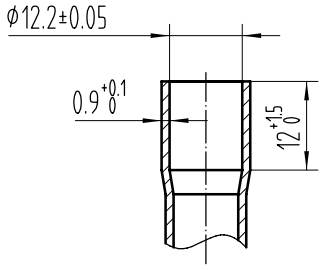
名 称 Name	代号 Symbol	
	格力代码(Gree Code) 00105246	格力代码(Gree Code) 00105246G
外形尺寸图 Outside dimension	QXA-DW-01	
性能曲线图 Performance diagram	QXA-DW-02	
电气安装及底脚安装图 Wiring & mounting plate installation	QXA-DW-03	
铭牌 Name plate	QXA-DW-04	QXA-DW-05
接线柱护盖 Terminal cover	ZE7.852.003	
减振垫圈 Grommet	ZE8.639.601	
绝缘垫 Gasket	ZE8.683.001(02)	
过载保护器 Overload protector	ZE3.604.002	

外 形 尺 寸 图
OUTSIDE DIMENSION

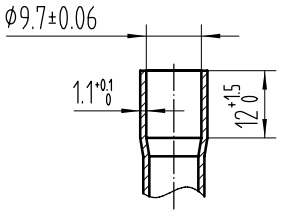
型号(MODEL): QXA-B141zF030

QXA-DW-01

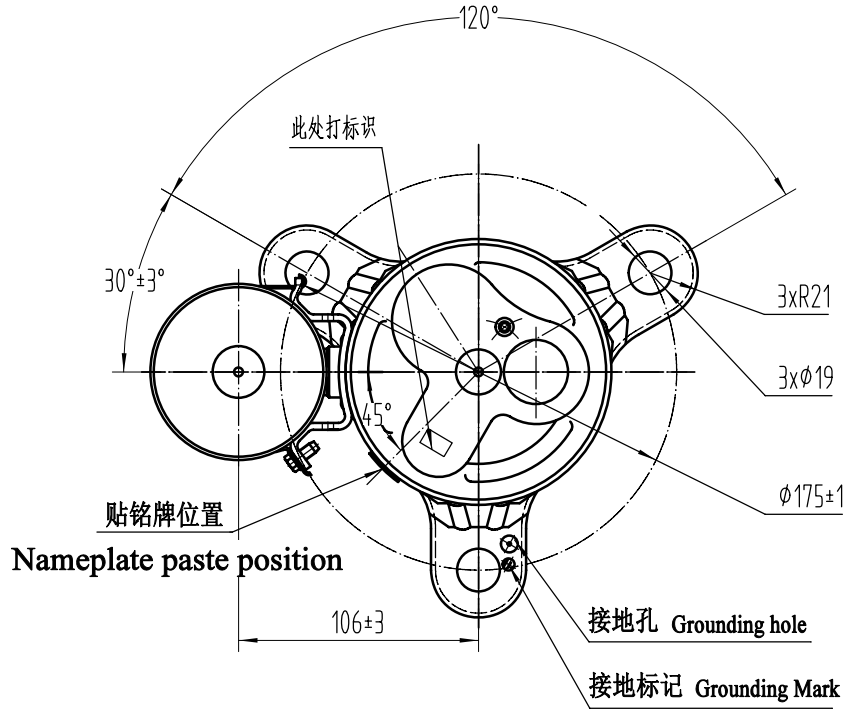




吸气管放大图
Suction Tube(Scaled)



排气管放大图
Discharge Tube(Scaled)



性 能 曲 线 图
PERFORMANCE DIAGRAM

型号(MODEL): QXA-B141zF030

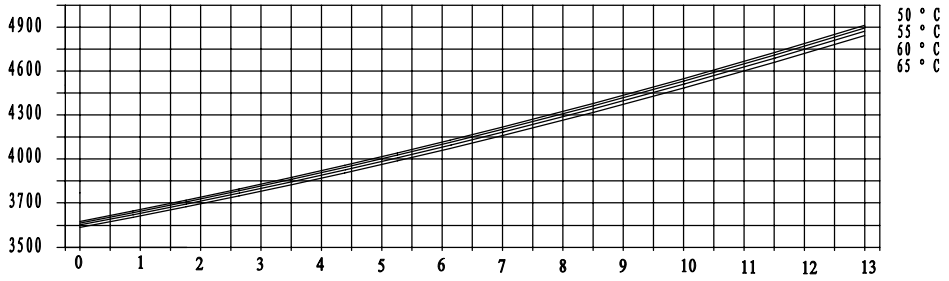
吸气温度 35℃　　过冷度 8.3℃　　环境温度 35℃

inspiration Temp.35℃　Liquid subcooled Temp.8.3℃　Ambient Temp.35℃

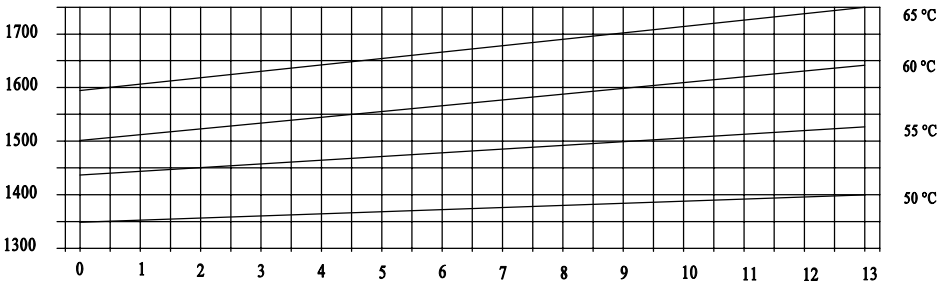
60Hz 3Ph. R410a

制冷量 Capacity (W)

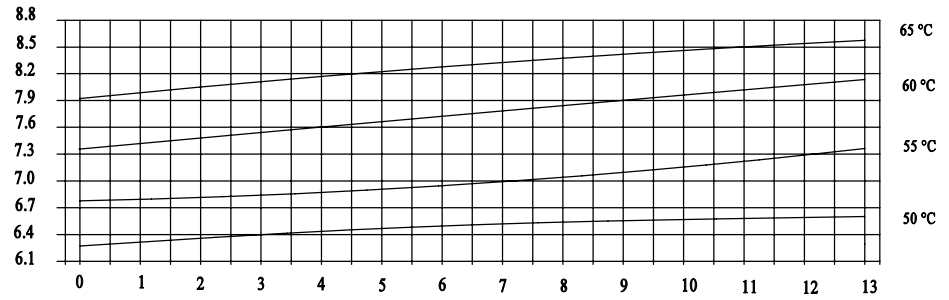
冷凝温度(℃)
Condensing Temp. (°C)



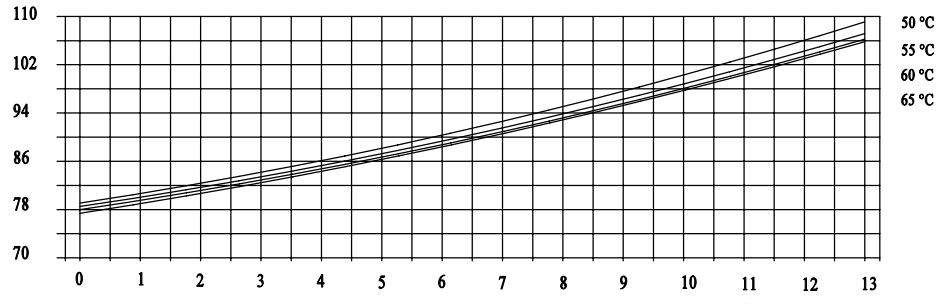
输入功率 Input Power (W)



电流 Working Current (A)

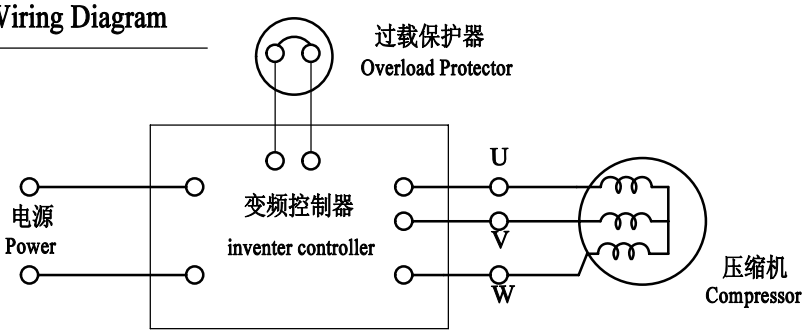


制冷剂流量 Refrigerant Flow (Kg/h)

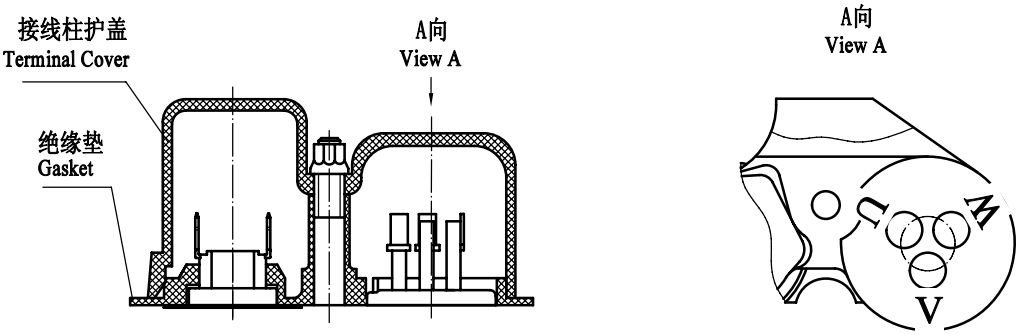


Evaporating Temp. (°C)
蒸发温度

电路图Wiring Diagram

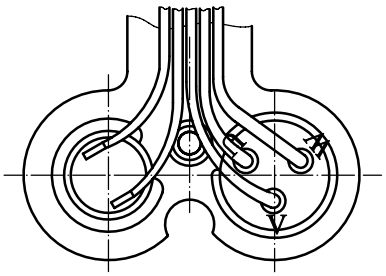


接线安装图 Electric Connecting Drawing

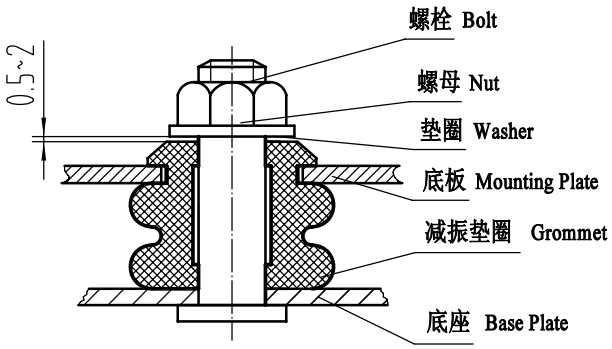


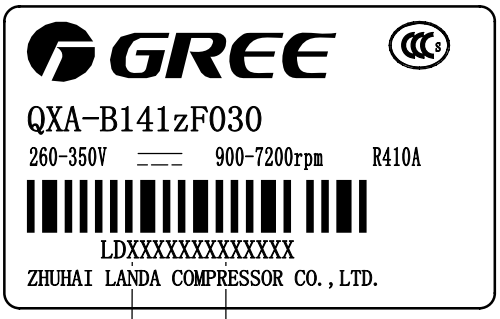
注： 全金属法兰面螺母的拧紧力矩为1.0～1.5Nm

The tightening torque for the metallic flange nut is 1.0~1.5Nm



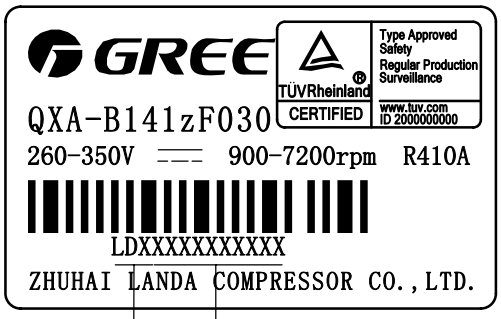
支脚安装图 Mounting Plate Installing





产品单元码
The code of product

质量跟踪编号
Quality tracking number



产品单元码
The code of product

质量跟踪编号
Quality tracking number

✧ 本规格书修订记录表：

标记	处数	更改文件号	签字	日期
A 版		首次发布	马胜利	2011-11-08
a1	4	/	马胜利	2012-09-25
a2	1	/	马胜利	2012-11-01
a3	2	/	马胜利	2013-06-25
a4	5	/	马胜利	2014-01-07
B	/	/	朱倩	2014-10-31
b1	1	LD20150622868	樊峰刚	2015-06-11
C1	1	BG00925167	张洪玮	2018-04-19