全封闭活塞式制冷压缩机

技术规格和使用说明

HERMETIC REFRIGERA TION COMPRESSOR SPECIFICATIONS

适用于空调器及商用制冷机

APPROVED FOR

AIR CONDITIONERS & COMMERCIAL REFIGERATORS

型号 MODELS:

QR44	QR52	QR58	QR62	
QR3-44	QR3-52	QR3-58	QR3-62	QR3-74
QR3-90	QR3-100	QR3-112	QR3-124	QR3-134

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1. 注意事项 APPLICATION INSTRUCTIONS

1. 1 压缩机出厂前已注入适量的冷冻机油，使用中不应随意添加和倒出，也不应随意加入其他牌号的冷冻机油，否则会损坏压缩机。

Oil has been charged in the compressor. Do not add or subtractrandomly. SUNIS0 3GS is only been used.

1. 2 压缩机对残余水分含量要求较高，故在将压缩机接入制冷系统前方可拔去各管口橡胶塞，并应在10分钟内完成焊接（装配），以免水分进入压缩机而对整个制冷系统造成危害。

DON't open the compressor plugs more than 10minutes before use to prevent moisture from getting into the compressor.

1. 3 运行中的压缩机电机是由制冷介质R404a冷却的，在缺少制冷介质的情况下不得运行压缩机。

The compressor's motoris cooled by refrigerant R404a, don’tpperate compress or without refrigerant R404a.

1. 4 压缩机内部处于真空状态时严禁运行压缩机，否则内部的弧形电流将损坏内部零件。

The compressor should notbe operated whileunder vacuum; otherwise, internal arcing cancause damaging parts.

1. 5 压缩机运行停机后再次启动应间隔3分钟以上。

Three minutes shut-off time should be ensurd at least until restarting.

1. 6 压缩机应与水平地面保持垂直，最大安装倾斜角不大与5° 。

The allowable incline should be lese them 5 degree from vertical during operation.

1. 7 制冷剂填充量应不大于2.5倍润滑油重量。

Max weight of refriger ant charge should be less than oil weight multiplied by 2.5.

1. 8 制冷剂应从制冷系统的冷凝器的尾端注入，而不能直接注入压缩机。

Refrlgerant should be chdrged from the end of condenser ofrefrigerating systems, never charge refrigerant to the compressor directly.

1. 9 对于中温工况应用情况，压缩机前一般应配置适当体积的气液分离器，压缩机回气温度应保证不少于2.8℃ (5° F) 的过热度，以防液击的发生。

A suctin accumulator is normally required for the compressor being used on medium backpressure condition. The return gas temperature mllst maintain2.8℃(5° F) superheat aboVe to prevent excessive liquid from entering compressor.

1. 10 压缩机启动前应仔细检查接线是否正确，并注意引出线不得与压缩机表面接触。

Before startinhg the compressor, check the wiring. And the lead wires should not be touched on the surface of the compresccor.

2. 技术参数 SPECIFICATIONS

2.1技术参数 SPECIFICATIONS

技术参数 Specifications	型号 Models	QR44	QR52	QR58	QR62
性能参数 Perfomance Specifications	名义制冷量（W） Nominal Capacity	5770	7050	7900	8500
	能效比 W/W COP	3.0	3.0	3.1	3.1
	噪声dB（A）（声压级） Noise（SPL）	≤62	≤64	≤65	≤65
	排量 cc/rev Displacement	44	52	58.2	62.7
电机数据 Motor Data	输入功率 W Motor Input	2060	2420	2680	2930
	额定电流 A RLA	10.2	12.5	13.5	14.5
	堵转电流 A LRA	65	65	70	70
	绝缘等级 Insulation Level	F			
	转速 rev/min Revolutions	≥2860			
	电源 Power Source	220V/1PH/50Hz, 220-240V/1PH/60Hz			
	启动绕组电阻Ω （25℃） Start Winding Resistance	2.88	2.88	2.68	2.68
	运行绕组电阻Ω （25℃） Run Winding Resistance	1.01	1.01	0.69	0.69
	启动电容 Start Capacity	156~186μF/330V			
	运行电容 Run Capacity	35μF/450V			
	启动继电器 Start Potential Relay	吸合电压：180-195V 释放电压：40-105V Pick Upat: 180-195V Drop Outat: 40-105V			
冷冻机油注入量 cc Refrigerator Oil Charge		1500			
冷冻机油牌号 Refrigerator Oil Grade		SUNISO SL-32S			
净重（含润滑油）Kg. Net Weight(Lubricating Oil Included)		33	33	34	34
制冷剂 Refrigerant		R404a			

2.2技术参数 SPECIFICATIONS

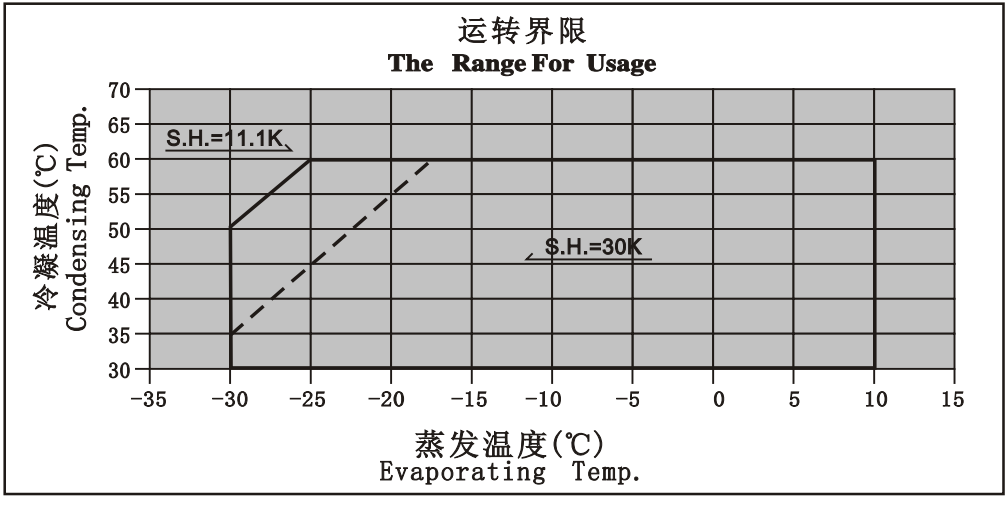
技术参数 Specifications	型号 Models	QR3-44	QR3-52	QR3-58	QR3-62	QR3-74
性能参数 Perfomance Specifications	名义制冷量（W） Nominal Capacity	5770	7050	7900	8500	9860
	能效比 W/W COP	2.9	2.9	3.0	3.0	2.9
	噪声dB（A）（声压级） Noise（SPL）	≤62	≤64	≤65	≤65	≤65
	排量 cc/rev Displacement	44	52	58.2	62.7	74.2
电机数据 Motor Data	输入功率 W Motor Input	2060	2420	2680	2930	3660
	额定电流 A RLA	3.8	4.7	5.0	5.4	6.7
	堵转电流 A LRA	30	30	39	39	39
	绝缘等级 Insulation Level	F				
	转速 rev/min Revolutions	≥2860				
	电源 Power Source	380V/3PH/50Hz, 460V/3PH/60Hz				
	绕组电阻Ω （25℃） Line to Line Resistance	6.8	6.8	4.0	4.0	3.4
冷冻机油注入量 cc Refrigerator Oil Charge		1500				
冷冻机油牌号 Refrigerator Oil Grade		SUNISO SL-32S				
净重（含润滑油） Kg. Net Weight (Lubricating Oil Included)		31	31	33	33	33
制冷剂 Refrigerant		R404a				

2. 3 技术参数　SPECIFICATIONS

技术参数 Specifications	型 号 Models	QR3-90	QR3-100	QR3-112	QR3-124	QR3-134
性能参数 Perfomance Specifications	名义制冷量（W） Nominal Capacity	11250	12930	14900	16640	17800
	能效比　W/W COP	2.9	2.9	2.8	2.8	2.75
	噪声dB（A）（声压级） Noise（SPL）	≤65	≤66	≤66	≤67	≤69
	排量 cc/rev Displacement	90.2	100.7	112.5	124.4	134.8
电机数据 Motor Data	输入功率　W Motor Input	3980	4540	5250	5860	6300
	额定电流　A RLA	7.3	8.3	9.6	10.6	11.7
	堵转电流　A LRA	55	55	70	70	70
	绝缘等级 Insulation Level	F				
	转速 rev/min Revolutions	≥2860				
	电源 Power Source	380V/3PH/50Hz, 460V/3PH/60Hz				
	绕组电阻Ω　（25℃） Line to Line Resistance	3.6	3.6	2.2	2.2	2.0
冷冻机油注入量　cc Refrigerator Oil Charge		2000				
冷冻机油牌号 Refrigerator Oil Grade		SUNISO SL-32S				
净重（含润滑油）Kg. Net Weight (Lubricating Oil Included)		46	46	48	48	48
制冷剂 Refrigerant		R404a				

3. 使用范围 OPERATING CONDITIONS

3. 1 应用界限 The Range For Usage



3. 2 排气管温度 Discharge Temperature: ≤150℃

3. 3 电气机绕组温度 Motor Wiring Temperature: ≤130℃

3. 4 电压范围 Voltage Range: 220V/1PH/50Hz，220-240V/1PH/60Hz，380V/3PH/50Hz，460V/3PH/60Hz

3. 5 压缩机压缩比 Compressor Compression Ratio

根据每种压缩机的性能参数表，在边界条件工况下，压缩机仅能短时间运行，不得连续运行，以免损坏压缩机。

Refer to individual performance table envelope. Do not run continuously at boundaries, run only for a short period of time at boundary conditions.

4. 一般特性 CHARACTERISTICS

4. 1 压缩机表面采用黑色或蓝色烤漆，光洁、色泽一致，漆层附着牢固。

Painting:Black or Blue Paint, Baked Smoothly&Firmly

4. 2 压缩机外壳在2.0MPa 压力条件下历时1分钟，不允许有泄漏。

The shell of compressor shall withstand the pressure of 2.0 MPa for one minute, any leakage can't occur.

4. 3 对地绝缘电阻不小于200MΩ

Insulation resistance (terminal to earth) should be more than 200 M Q.

4. 4 压缩机（冷态）应能承受接线柱对壳体之间施加1250V，历时Imin的耐压试验，电流设定为5mA。

The compressor shall withstand high potential test(1250V/1min, between terminal to eanth, current limit is 5 miliamps total).

4. 5 压缩机内部残余水分含量不大于300mg，残余条质含量不大于200mg。

Residual moisture should be less than 300mg, residual impurities should be less than 200mg.

4. 6 压缩机保护装置采用进口内置式保护器和安全阀，可有效防止由于冷媒泄漏、风扇堵转等引起的对压缩机的损坏。

Compressor internal protectors include internal motor protector and pressure reliefvalve, which can effectively prevent the damage to compressor, caused by leakage of refrigerant and blocked fan condition.

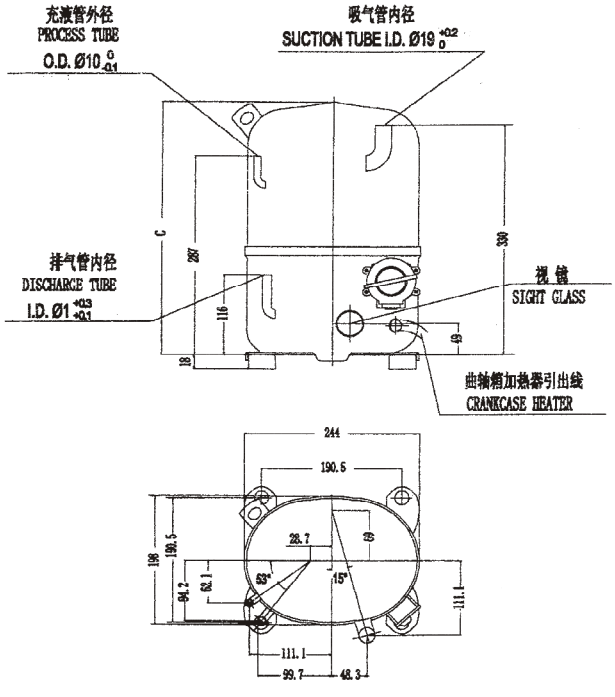
4. 7 压缩机采用曲轴箱加热器（根据用户需要）

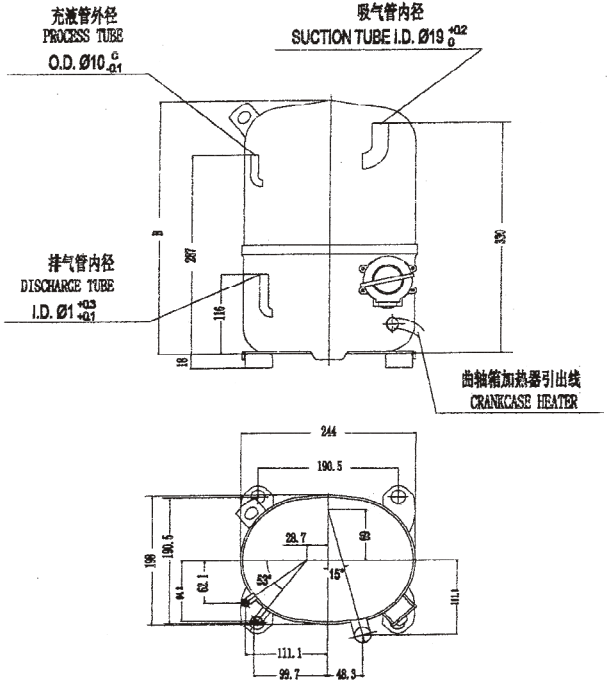
According to putchaser's demand, crank case heater may be supplied.

5. 外形尺寸及安装电气接线图

EXTERNAL VIEW & DIMENSIONS、MOUNT ASSEMBLY & WIRING DIAGRAM

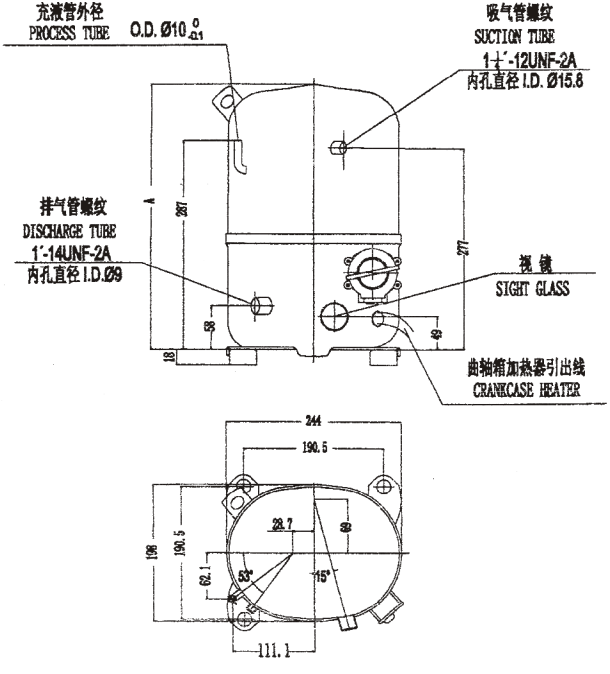
5. 1外形尺寸 External View Dimensions



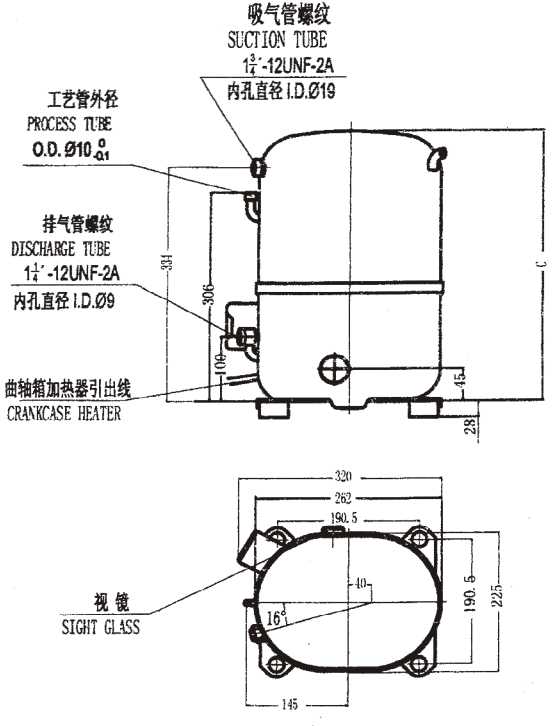


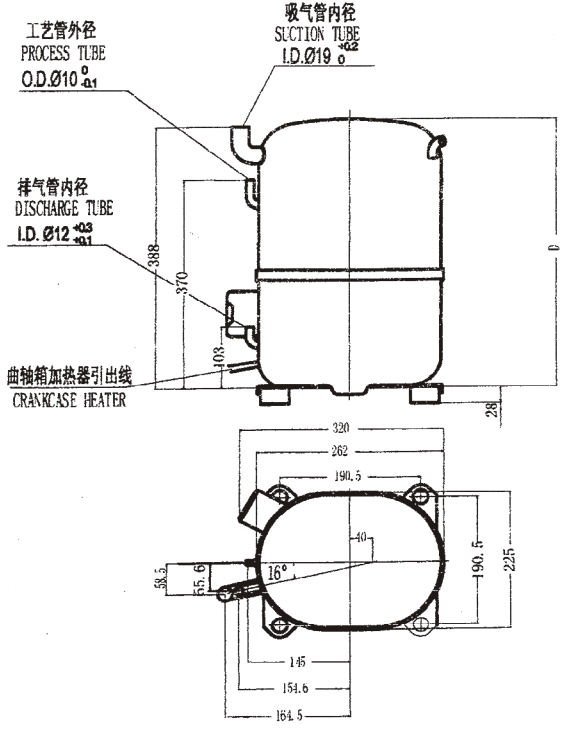
型号 Models	C IN/mm
QR3-44B (QR44B)	14/355
QR3-52B (QR52B)	14/355
QR3-58B (QR58B)	14.4/365
QR3-62B (QR62B)	14.4/365
QR3-74B	14.4/365

型号 Models	B IN/mm
QR3-44A (QR44A)	14/355
QR3-52A (QR52A)	14/355
QR3-58A (QR58A)	14.4/365
QR3-62A (QR62A)	14.4/365
QR3-74A	14.4/365



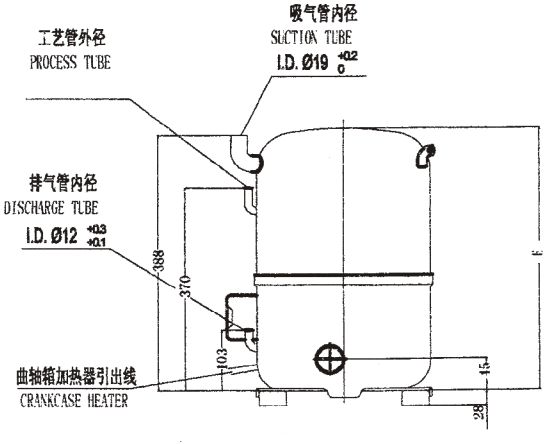
型号 Models	A IN/mm
QR3-44 (QR44)	14/355
QR3-52 (Qr52)	14/355
QR3-58 (Qr58)	14.4/365
QR3-62 (Qr62)	14.4/365
QR3-74	14.4/365

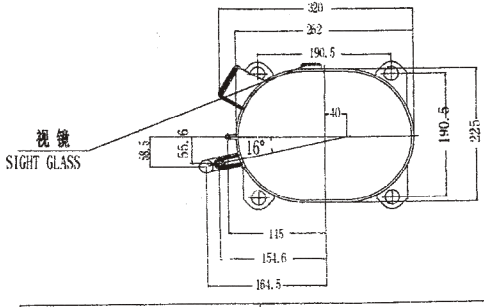




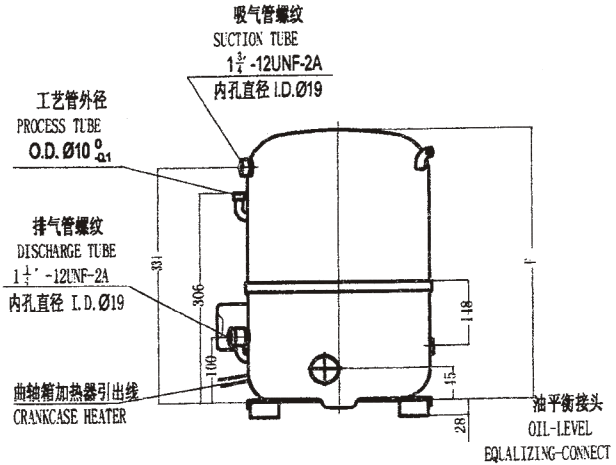
型号 Models	C IN/mm
QR3-90	15.3/388
QR3-100	15.3/388
QR3-112	15.7/398
QR3-124	15.7/398
QR3-134	15.7/398

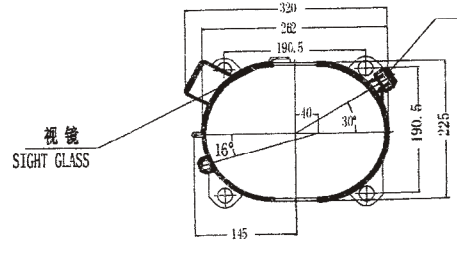
型号 Models	D IN/mm
QR3-90A	15.3/388
QR3-100A	15.3/388
QR3-112A	15.7/398
QR3-124A	15.7/398
QR3-134A	15.7/398





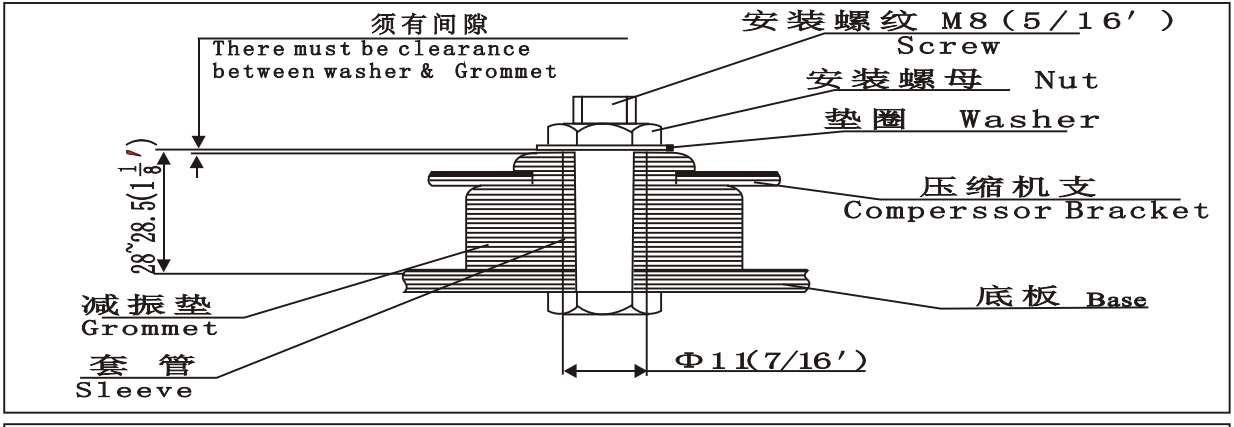
型号 Models	E IN/mm
QR3-90B	15.3/388
QR3-100B	15.3/388
QR3-112B	15.7/398
QR3-124B	15.7/398
QR3-134B	15.7/398

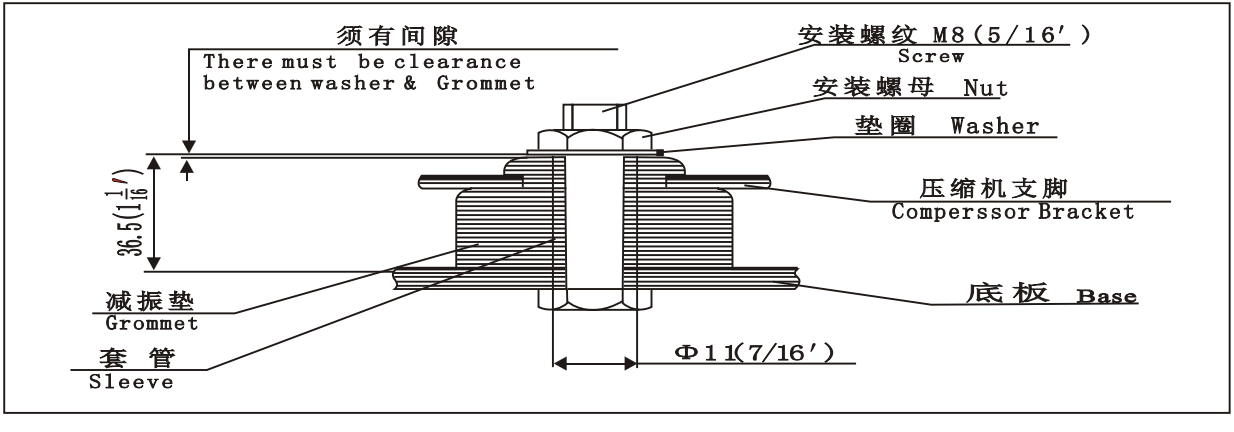




型号 Models	F IN/mm
QR3-90C	15.3/388
QR3-100C	15.3/388
QR3-112C	15.7/398
QR3-124C	15.7/398
QR3-134C	15.7/398

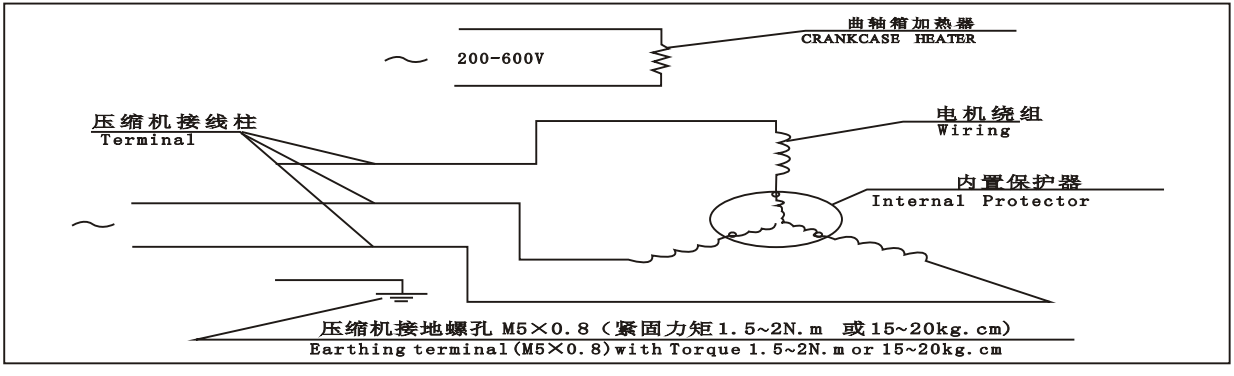
5.2 安装图 Mount Diagram



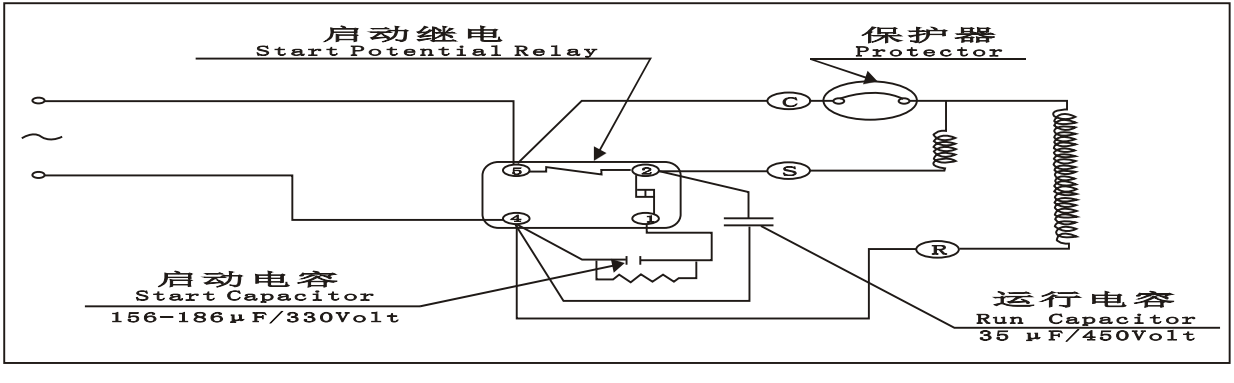


5. 3 电气接线图 Wiring Diagram

5. 3.1 三相电器接线图



5. 3.2 单相电器接线图



6. 产品装箱清单 PARTS LIST

序号 Serial number	名称 Name	数量 Quantity	备注 Notes
1	压缩机 Compresssor	1	
2	减振垫 Grommet	4	
3	减振套管 Sleeve	4	
4	产品合格证 Qualification	1	
5	技术规格书 Specification	1	根据需要配给 Needed

7. 产品的包装、运输和贮存 PACKING,TRANSPORTATION AND STORAGE

7. 1 压缩机包装的应能避免运输中受潮和损伤，包装箱上的文字标记清晰整齐。

The packing should be moisture-resistant, and prevent the compressor in it being damaged. The letters and marks on the package should be clearly painted.

7.2 压缩机运输和搬运过程中，应保持平稳、轻放、倾斜角不得大于45°。

Don't incline the compressor more than 45°。

7. 3 压缩面应贮存在室温、无腐蚀性气体存在得环境中。

The compressor should be kept in the place with normal room temperature, and should be kept out of corrosive atmosphere.

8. 附表 TABLES

8. 1 名义工况 RATING CONDITION

蒸发温度 Evaporating Temp.	冷凝温度 Condensing Temp.	吸气温度 Return Gas Temp.	过冷温度 Liquid Temp.	环境温度 Ambient Temp.
7.2	54.4	18.3	46.1	35

8. 2 单位换算表 UNITS CONVERSION CHART

单位换算表 UNITS CONVERSION CHART
1KCAL/H=1.163WATTS 1BTU/H=0.293WATTS t° F=9/5× θ ℃+32 1INCHE(IN)=25.4MILLIMETERS(mm)

Innouation, Foreuer.

CE TÜV ISO9001:2008