QIANJIANG
钱江制冷

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万胜压缩机技术规范

（WANSHENG COMPRESSOR TECHNICAL SPECIFICATION）

QM61U

（220-240V~50Hz）

杭州钱江压缩机集团有限公司

HANGZHOU QIANJIANG COMPRESSOR GROUP CO.,LTD.

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1、压缩机类型 Compressor Type

压缩机型号 Compressor model	QM61U
额定电压/频率 Rated Voltage/Frequency	220-240V~50Hz
制冷剂 Refrigerant	R290
适用范围 Application	低背压 LBP
冷却方式 Cooling Type	自然冷却 Static Cooling
节流装置 Throttle Device	毛细管 Capillary
启动力矩 Start Torque	较低的起动转距 Low Starting Torque
电机类型 Motor Type	RSIR
运行电容 Running capacitor	无 Not Included

2、技术参数 Technology Parameter

测试条件 Testing condition

汽缸容积 Displacement	马力 Nominal Power	技术参数 Technology Parameter				
		频率(Hz) Frequency	制冷量（W） Cooling capacity ≧95%	输入功率（W） Input Power ≤115%	工作电流（A） Current ≤110%	COP(W/W) ≧95%
6.1Cm^3	3/10HP	220V/50Hz	320	228.5	1.36	1.4

测试条件 Testing Conditions	LBP
	ASHRAE
蒸发温度 Evaporating Temp.	-23.3℃
环境温度 Ambient Temp.	32.2℃
冷凝温度 Condensing Temp.	54.4℃
吸气温度 Suction Temp.	32.2℃
过冷温度 Subcooling Temp.	32.2℃

3、运行工况 Running Condition

环境温度 Ambient Temp.	0～43℃
蒸发温度 Evaporating Temp.	-35～-15℃
电压范围 Voltage Range	187-242V
最大排气压力 Max.Discharge Pressure	2.4Mpa(abs)
最高冷凝温度 Max.Condensing Temp.	65℃
最高绕组温度 Max.Winding Temp.	120℃
最高壳体温度 Max.Shell Temp.	95℃
最高排气温度 Max.Discharge Temp.	110℃
起动性能 Starting Performance	187V[0.80/0.80Mpa]
壳体最小耐压 Shell Min. Resistance to Pressure	35bar

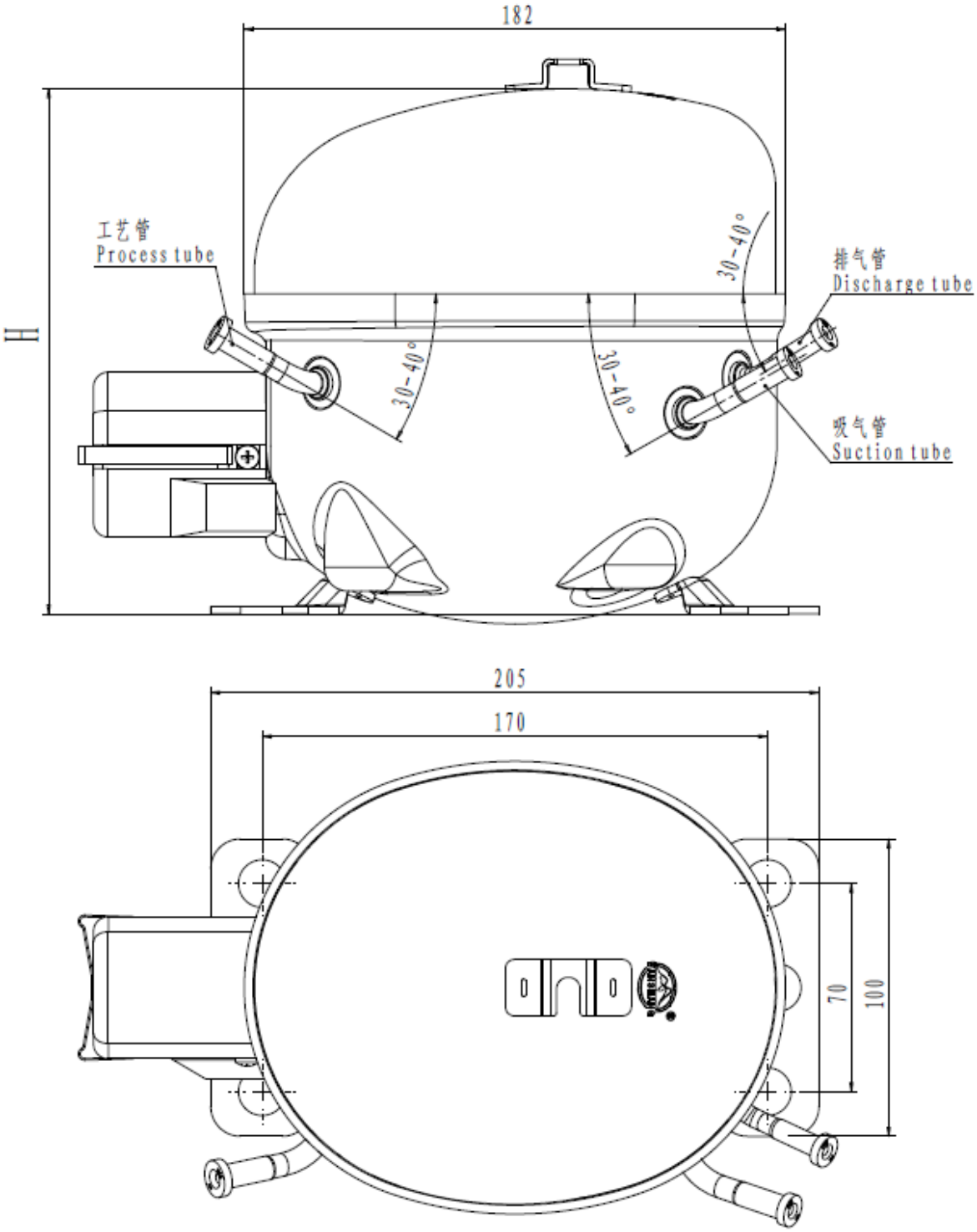
4、压缩机机械信息 Compressor Mechanical Information

油类型 Oil Type	脂类油 Lipid Oil
冷冻油黏度 Viscosity of Refrigerant Oil	18.2~20.2mm^2/S(40℃)
冷冻油密度 Density of Refrigerant Oil	0.992-0.998g/ml(20℃)
牌号 Brand	RL-22H
注油量 Oil Charging Volume	160±10ml
重量（含油）Weight (Including Oil)	8.16±0.4kg
吸气管直径（内径）Diameter of Suction Tube(I.D.)（S）	Φ6.2±0.1mm
排气管直径（内径）Diameter of Discharge Tube(I.D.)（D）	Φ5.0±0.1mm
工艺管直径（内径）Diameter of Process Tube(I.D.) (P)	Φ6.2±0.1mm
吸气管、工艺管、排气管材质 Material of Suction Tube, Process Tube and Discharge Tube	TP2
压缩机噪声 Compressor Noise	50Hz<45dB, (GB/T9098-2008) 在此基础上将持续优化噪声总体水平 We will continue to optimize the overall noise base on this level.
振动 Vibration	1.4m/s^2
保护气体 Protecting Gas	干燥空气 0.04～0.06Mpa(露点：-60℃) Dry air 0.04 ~0.06Mpa(dew point:-60℃)
高度 Height mm (H)	178±2mm
接水盘挂钩 Water Collector Hook	有 Included
密封 Sealing	橡胶塞 Rubber Plug
油冷管 Oil-cooled Tube	无 Not Included

5、残留物 Residue

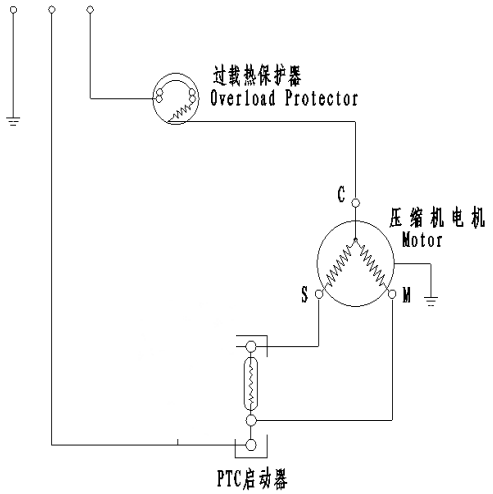
含水量 Moisture Content	≦100mg
残余杂质含量 Content of Residual Impurities	≤50mg

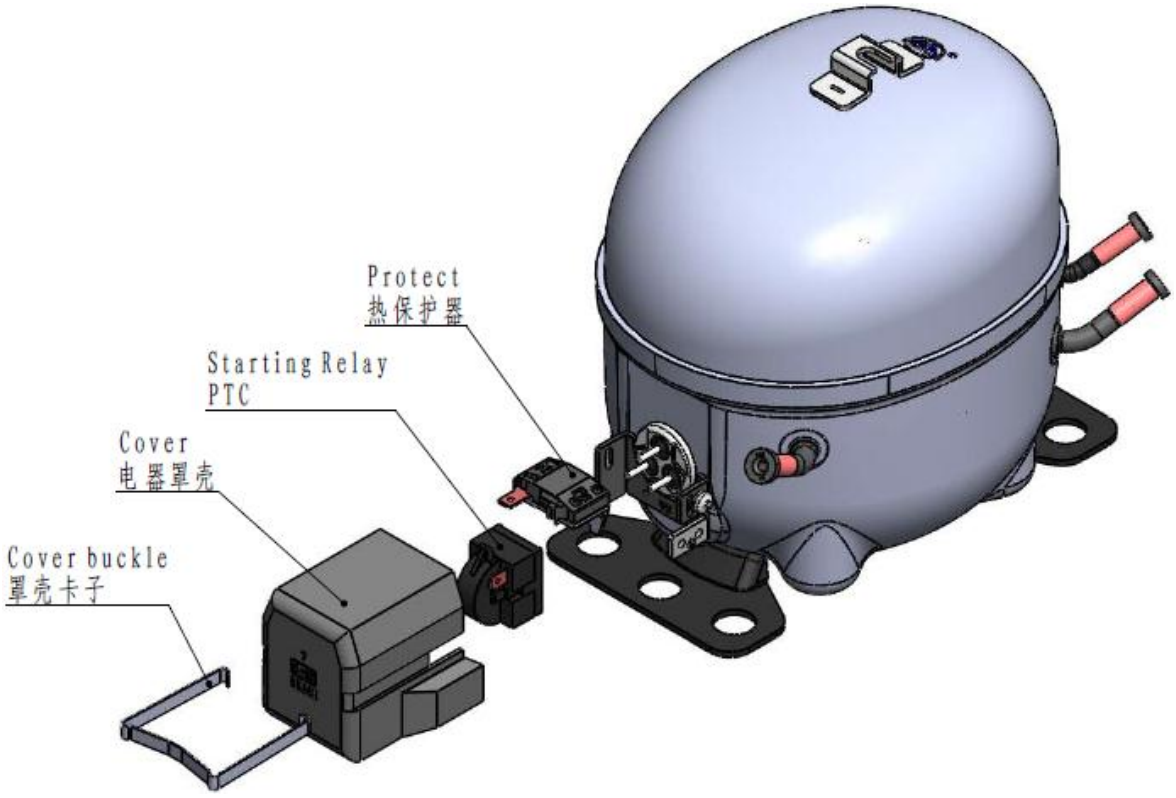
6、压缩机外形 Compressor Shape



7、接线图 Wiring Diagram

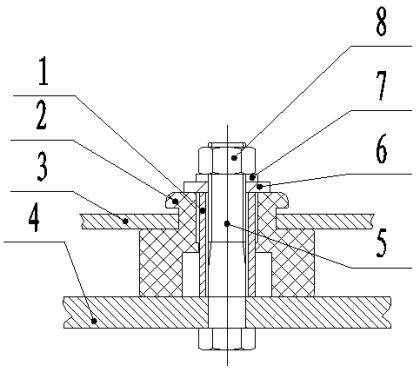
RSIR（PTC）





8、安装支架和底座 Mounting Bracket and Base

接头式	Connector Type
1、减震套	Sleeve
2、减震垫	Rubber Grommet
3、机座	Mounting Bracket
4、箱体底板	Cabinet Base
5、M6 螺栓	M6 Screw
6、平面垫圈	Flat Washer
7、弹簧垫圈	Spring Washer
8、M6 螺母	M6 Nut



9、启动器与保护器 Starter and Protector

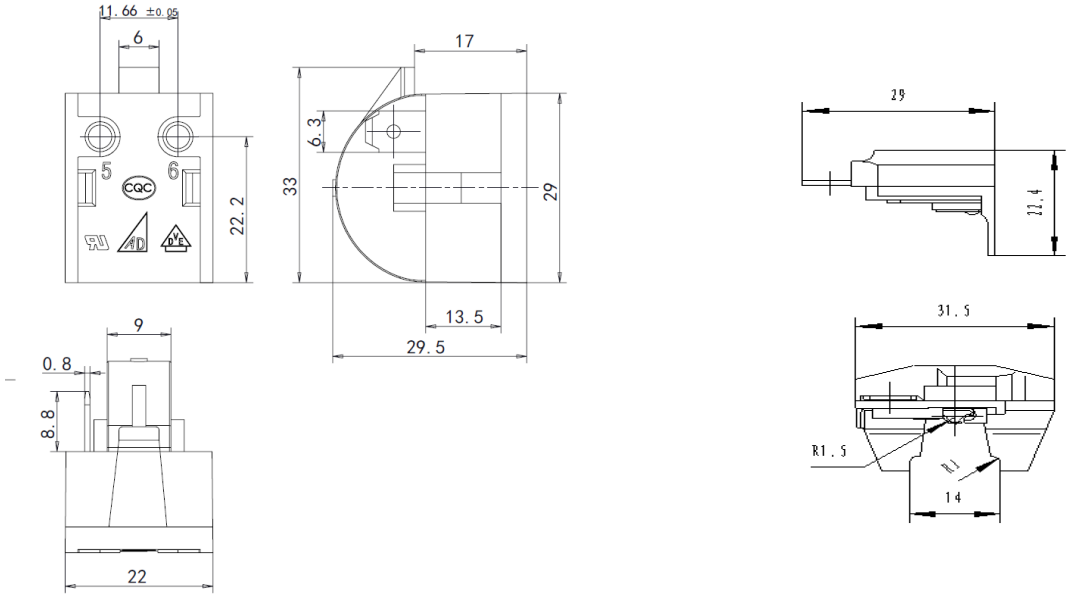
8.1 启动器 Starter
型号 Model：QP2-15
启动器类型 Starter Type：PTC 启动器 PTC Starter
最大电流 Max.Current：8A
最大工作电压 Max.Running Voltage：242V
常温阻值 Resistance of Starter：15±20% Ω
制造厂家 Manufacturers：
杭州星帅尔电器有限公司
Hangzhou Star ShuaiEr Electric Appliance Co., LTD.
万宝冷机集团广州电器有限公司
Wanbao Cold Machine Group Guangzhou Electric Appliance Co., LTD.

8.2 保护器 Protector
型号 Model：QM61U

压缩机型号 Compressor Model	QM61U
过载电流 Overload Current （25℃）	9A
动作时间 Trip Time	7-14S
复位时间 Reset Time	40-130S
动作温度 Trip Temperature	140±8℃
复位温度 Reset Temperature	61±9℃
最小动作电流 The Minimum Trip Current（75℃）	2.8A
装配力 Assembly Force	≤75N
卸载力 Disassembly Force	≥9N
阻燃等级 UL Flammability Classification	UL94V-0

制造厂家 Manufacturers：
杭州星帅尔电器有限公司
Hangzhou Star ShuaiEr Electric Appliance Co., LTD.

启动器与保护器外形图 Starter and Protector Appearance



注：1、所有电器组件和安装部件是单独包装的，并不是直接安在压缩机上；
2、交货清单下的所有电器组件和安装部件都由我公司提供；

Note:1、All electrical parts and installing accessories are packed separately, not installed on the compressor.
2、All electrical parts and installing accessories listed on the delivery list are all provided by our company.

10、交货清单 Delivery List

序号 Serial number	名称 Name	规格 Specifications	数量 Quantity	备注 note
1	压缩机 Compressor	QM61U	1pc	
2	安装附件 MOUNTING ACCESSORIES			
2.1	胶座 Rubber grommet **(客户自配 Prepared by customer)**		4 pcs	
2.2	寸管 Sleeve **(客户自配 Prepared by customer)**		4 pcs	
3	电器附件 ELECTRICAL ACCESSORIES			
3.1	过载热保护器 Thermal overload protector		1 pc	
3.2	PTC 启动器 PTC starter		1 pc	
3.3	电器罩壳 Relay Cover		1 pc	
3.4	罩壳卡子 Cover buckle		1 pc	
3.5	胶塞（排气管）Rubber plug (discharge tube)		1 pc	
3.6	胶塞（工艺管）Rubber plug (process tube)		1 pc	
3.8	接地螺钉(含垫片)Grounding screw (including washers) **(客户自配 Prepared by customer)**	M4×6	1 pc	

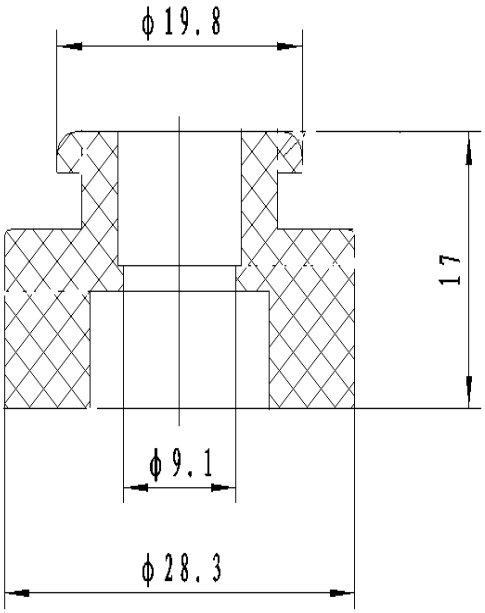
11、包装、贮存和运输 Package、 Storage and Transportation

包装类型 Package type	一次性 Single use
数量 Quantity	120 台/托 120 Pcs/pallet
运输 Transportation	海运或陆运 sea or land transportation
堆码层数 Stacking layer	最多两层 At most two layers
主要包装组件 Main packing components	木底座、上盖板、泡沫隔板、塑料隔膜、纸板罩、铁皮带 wooden supporter, upper wooden cover, foam divider, PE film, cardboard, iron belt
搬运 Transfer	保持压缩机正常和垂直状态 Keep the compressor in normal and vertical position
模拟运输要求 Simulating transportation requirement	不允许对压缩机和性能有所损坏 No damage to compressor and its performance

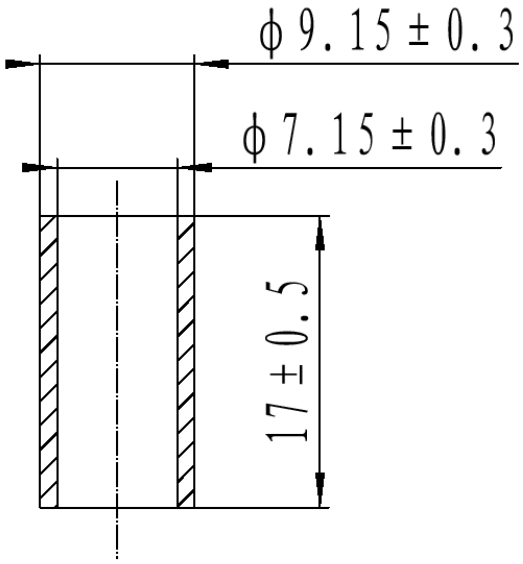
12、附件示图（如下）Accessory Diagram as Below

1. 胶座 Rubber grommet：

材质 Material	天然橡胶 Natural rubber
硬度 Hardness	邵氏 A55±5° Shore A55±5°
颜色 Color	黑色 Black

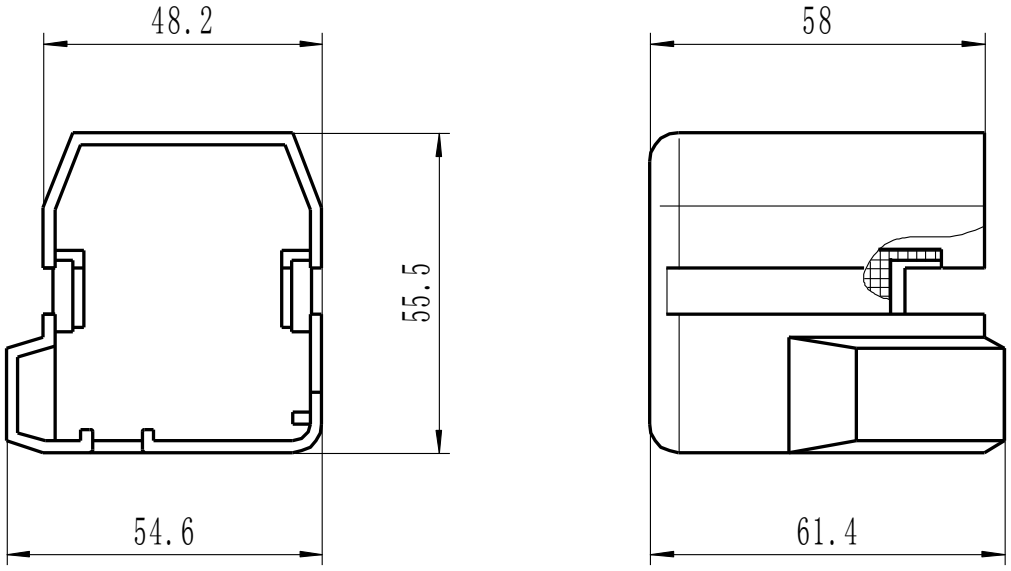


2. 寸管 Sleeve：

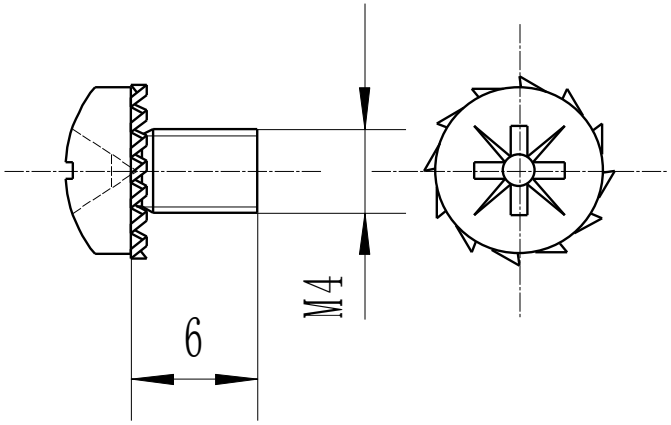


3. 电器罩壳 Relay cover：

材质 Material	PC
UL 阻燃等级 UL Flammability Classification	UL94V-0



4. 接地螺钉 Grounding screw ：



5. 环保要求 Environmental protection requirement

对于压缩机及其配件 to compressor and accessories

1〉、PAHs 要求：PAHs（Ⅱ类）： BaP 含量＜1ppm、16 种 PAH(EPA)总量＜10ppm；

Requirement of PAHs ：PAHs（Ⅱ class）： BaP content＜1ppm, total content of 16 PAH(EPA)＜10ppm；

2〉、REACH 法规要求：SVHC 限制小于 1000ppm；

Regulatory requirement of REACH ：SVHC＜1000ppm；

3〉、邻苯二甲酸盐（脂）要求：18 项有害物质限制要求小于 1000ppm。

Requirement of Phthalate: total content of 18 hazardous material ＜1000ppm.

13、产品一般要求 General Requirement

1)、压缩机应贮存于干燥通风的场所。

Compressor should be stored in a dry and drafty place.

2)、压缩机存放、运输时不得倾斜或倒置，同时避免撞击，安装水平与工作状态倾斜不大于 5°。

Compressor should not be tilted or inverted in storage and transportation, collision should be avoided. The installation level and working condition should not be tilted at more than 5°.

3)、压缩机安装前切勿将橡胶塞拔掉，以免杂物和潮气进入，安装时（建议先拔排气管橡胶塞）拔出橡胶塞后应在 10 分钟内安装完毕。

Rubber plugs should not be pulled out from discharge tube before installation so as to avoid impurity and humidity. The installation should be completed within 10 minutes after that. (It is proposed to pull out the rubber plugs of discharge tube first of all.)

4)、压缩机的接地装置应永久可靠地与制冷器具的接地装置连接。

The compressor's ground connection should be reliably connected with that of the refrigeration appliance all the time.

5)、为了保证系统压力平衡，压缩机运行间隔时间不得少于 5min。

In order to keep a pressure balance in system, the interval of operation should not be less than 5 minutes.

6)、压缩机内注有本公司认可的最佳量的专用冷冻机油，不得随意倒出或添加。

The charging volume of refrigerant oil has been optimized by our company. Don't pour any oil out or into the compressor randomly.

7)、若压缩机附件（如启动器、热保护器等）交货时未安装在压缩机上而是在附件箱内，则必须选用相对应型号的启动器、热保护器等。

The accessories (eg. Starter, thermal protector etc.) are not installed into the compressor while delivery, but in the accessory case. Be sure to select the corresponding starter and thermal protector models correspondingly.

8)、按低、中、高背压正确匹配压缩机许可的蒸发温度并注意各类压缩机许可的电压、频率范围。

Match the proper evaporating temperatures according to the low, middle and high back pressure requirements. Pay attention to the admitted ranges of voltage and frequency for the different models.

9)、压缩机不能承受高电压或真空条件下启动、运行，不能在真空状态下检测绝缘电阻与耐压强度。

Compressor can not start or run in high-voltage or vacuum condition. Checking insulation and compressive resistance in vacuum is not allowed.

10)、凡直接进气和半直接进气的压缩机工艺管和吸气管不能互换，否则压缩机性能将难以保证。

The process or suction tube of direct and semi-direct gas compressor can not be interchanged, or it would be difficult to guarantee the performance of compressor.

11)、不能用压缩机进行抽真空，不能采用氧气注入制冷系统进行检漏等相关操作，否则容易造成安全事故。

Don't use the compressor as vacuum-pumping. The oxygen injection should not be used for leak detection of refrigeration system, or it would possibly cause accidents.

12)、制冷系统设计时应充分考虑系统回油。

The oil return in system has been fully taken into consideration in design.

13)、压缩机的工作环境温度不能高于 43℃，在最高室温（43℃）时，其连续运转时电流、输入功率、不应超过压缩机的极限值。

The ambient temperature in which compressor working should not be higher than 43℃. The current and input power in its continuous operation should not be exceed the limitation of the compressor at the highest room temperature (43℃).

14)、压缩机出厂后库存期最好不要超过 6 个月，如果超过请检查压缩机内干燥氮气是否充足，必要时应补充。

The stocking period must be less than 6 months after the date of production. If longer, you have to check whether the filled dry nitrogen is sufficient. Replenishment must be done if necessary.

15)、R290 压缩机的敞口时间应尽可能短，不得超过 10 分钟。

Don’t keep the R290 compressor connect pipe open too long better , no more than 10 minutes.

16)、抽真空泵和充注设备必须专用于 R290.

The vacuum pump and the charging system must only be dedicated to R290 .

17)、与 R290 不相溶的有机物在制冷系统中不得使用。

The organic substance non-compatible with R290 can’t be used in the refrigeration System.

18)、R290 制冷系统应使用与 R290 相适应的干燥过滤器。

R290 refrigerating system should use the dry filter corresponding to R290

19)、R290 制冷系统应严格控制水份、杂质、石蜡、硅油和氯离子等的含量。

R290 refrigerant system should strictly control the content of moisture, impurities, paraffin, silicone oil and chloride ion.

20)、R290 压缩机内注有钱江制冷认可的专用脂类油，不得随意倒出或添加。

R290 compressor is injected with lipid oil approved by qianjiang compressor company, it’s not allowed to randomly pour out or add.