

编号 Code:

日期 Date: 2018.11.12

全封闭旋转式压缩机技术规格书

Specification of Hermetic Rotary Compressor

(参考)

型号 Model: C-RV226H7NA

代号 Code: 802 M0E 45

客户 Customer: _____

批准 Approval: _____

编制 Designed by	校阅 Checked by	标准化 Standardized by	审核 Reviewed by	批准 Approved by

沈阳中航机电三洋制冷设备有限公司

1、压缩机规格 SPECIFICATION OF COMPRESSOR

项目 Content	单位 Unit	规格 Specification	
压缩机类型 Compressor type		全封闭滚动转子式压缩机 (20F) Hermetic Rotary Compressor	
应用 Application		HBP	
额定功率 Rated output	W	1075	
冷却方式 Cooling type		自然空冷 BALDY	
电源 Power source	相数 Number of phase	PH	1
	电压 Rated voltage	V	220/230/240
	频率 Rated frequency	Hz	50
使用电压范围 Approved voltage range	V	198~264	
气缸数 Number of cylinder		1	
制冷剂 Refrigerant		R407C	
冷冻机油 Oil		FV68S 或等同品 ALF68SZ or Equivalent	
冷冻机油油量 Amount of oil charge	ml	450	
整机重量 (含油) *Weight (Incl. oil)	kg	(13.5)	
气缸容积 Displacement	cm ³	22.6	
电动机 Motor	电机类型 Motor type		单相感应电动机 (PSC) 1PH Induction motor (PSC)
	极数 Number of poles		2
	绝缘等级 Electrical insulation	级 CLASS	E
	绕组电阻 (at 25°C (77° F)) Winding resistance	C-R	Ω
C-S		Ω	4.015 ± 5%
R-S		Ω	6.760 ± 5%
\ELECTRIC PARTS	过载保护器 Overload protector		内置式 Internal
	运转电容器 Running capacitor		35 μF / 400VAC
	加热器 heater		—
联接管 Connection tube	吸气管内径 Suction tube (I.D)	mm	*I. D φ 12.8
	排气管内径 Discharge tube (I.D)	mm	*I. D φ 8.0

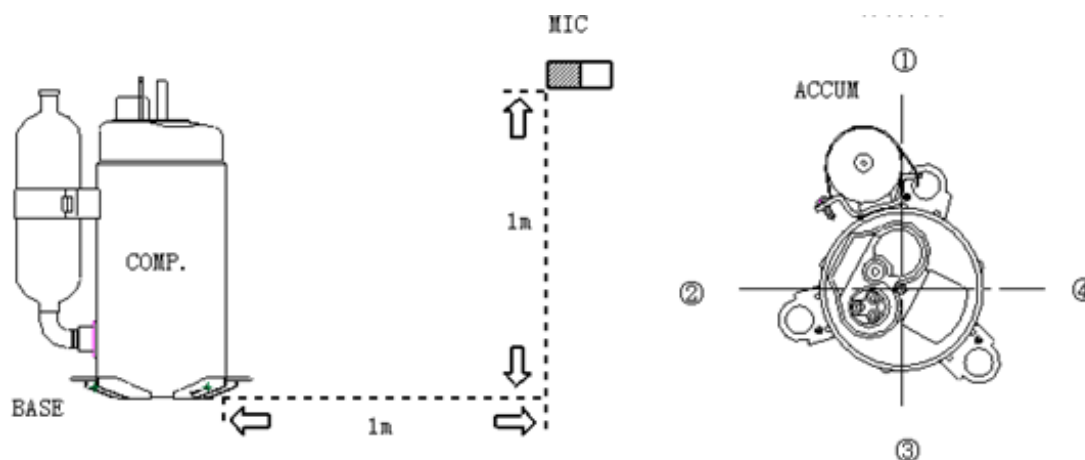
2、性能 RATED PERFORMANCE

	单位 UNIT	220V	备注 Remark
制冷能力 Capacity	W	3900	Min 95%
输入功率 Input	W	1315	Max 110%
电流 Current	A	6.07	Max 110%
能效比 COP	W/W	2.97	参考值 Reference
启动电压 Starting voltage	V	Max 187	
噪声 (声压级) Noise (Sound Pressure Level)	dB (A)	57	四向均值 Average of 4 Directions
振动 Vibration	水平 Horizontal	um	压缩机侧面 Compressor side
	圆周 Circumferential	um	

测试工况 Test conditions:

	℃	F (参考 Reference)
冷凝温度 Condensing temp	54.4	130
蒸发温度 Evaporating temp	7.2	45
膨胀阀前液体温度 Liquid temp. entering expansion valve	46.1	115
吸气温度 Return gas temp	35.0	95
环境温度 Ambient temp	35.0	95
平衡压 Balanced pressure	1.34MPa (G) (21.11kgf/cm ²)	
压缩机冷却方式 Compressor cooling	Fan 3m/s 噪声测试时关闭 Noise test: off	

噪声测试麦克风位置: Microphone positon



3、一般特性 CHARACTERISTICS

项目 Item	单位 Unit	标准 Criteria	备注
气密试验压力 Leak Tight (No Leakage) (Gauge Pressure)	MPa (G)	2.94	
破坏压力 Hydrostatic Strength (No Leakage) (Gauge Pressure)	MPa (G)	14.71	
绝缘电阻 Insulation Resistance (After Running)	MΩ	Min 100	
耐电压 Dielectric Strength	V	1500 (1Minute)	
残留水分 Residual Moisture	mg	Max 80	
杂质残留量 Residual Contamination	mg	Max 20	

(G): 表压 Gauge

4、零件及图纸清单 PARTS AND DRAWING LIST

部件名称 PARTS NAME	数量 Q' TY	图纸代号 PART' S CODE	备注 REMARK	提供 SUPPLY	
压缩机 COMPRESSOR	1	802 MOE 45	C-RV226H7NA	Yes	
标牌 PLATE NAME	1	---		Yes	
接线盒胶垫 GASKET TERMINAL	1	201 2 5303 Q5D 00X		Yes	
接线盒盖 COVER TERMINAL	1	201 2 6914 Q64 00X		Yes	
特种螺母 NUT SPECIAL	1	801 2 8305 102 00X		Yes	
整体减振胶垫 CUSHION RUB	3	819 2 6920 119 00X		Yes	
运转电容器 RUNNING CAPACITY	---	---	35 μ F /400VAC		No
底脚安装组合 MTG PARTS LIST RC	---	801 0 1520 261 00X			No
底脚螺栓 SCREW SPECIAL	3	819 2 6917 110 00X			No
底脚螺母 NUT SPECIAL	3	819 2 6919 105 00X			No

*Yes: 提供 Supply

*No: 不提供, 仅供参考 Out of supply, for reference

压缩机使用基准 (R407C)

COMPRESSOR APPLICATION STANDARD (R407C)

(R407C•HBP•Fixed•Vertical•BALDY)

为了正确使用 R407C 高温立式旋转式压缩机，特对使用基准和使用界限进行规定。

The following requirements apply to Vertical Type Rotary Compressors. Explain the Standard & standard.

*使用基准值：适用于通用状态（具备符合 JIS C9612 或相应标准、过负荷和低温条件等运转条件）下的运转。

Standard: Applicable to operations under conditions in compliance with JIS C 9612 or equivalent conditions (including standard, over-load and low-load conditions).

*使用界限值：适用于过渡条件下（启动时、除霜时）的短时间运转。

Limit: Applicable to transitional short period, such as starting and early stage of defrost mode.

No	项 目 ITEM	使用基准值 Standard	使用界限值 Limit	备 注 Note
1	制冷剂 Refrigerant	R407C		
2	平均蒸发温度范围 Evaporating Temp.	-15℃~+12℃ (0.20~0.65Mpa (G))	-25℃~+15℃ (0.07~0.73Mpa (G))	蒸发器入口、出口的平均温度 (Comp. suction pressure)
3	平均冷凝温度范围 Condensing Temp.	+30℃~+60℃ (1.17~2.56Mpa (G))	+65℃ (2.88MPa (G))	冷凝器入口、出口的平均温度 (Comp. discharge pressure)
4	压缩比 Compression Ratio	6 Max	10 Max	
5	电机绕组温度 Winding Temp.	115℃ Max (标准时) 105℃Max (Unit Capacity Test:105℃ Max)	125℃ Max	
6	外壳底部温度 Shell Bottom Temp.	上限: 100℃Max 下限: 相对冷凝压力饱和温度+0.5℃以上 Condensing temperature +0.5K Min		冷凝压力为压缩机的排气压力 Condensing pressure is discharge pressure
7	排气温度 Discharge Gas Temp	110℃以下	115℃以下	距压缩机出口 50mm 处排气配管 温度 at around 50mm from the Comp. discharge end
8	吸气温度 Suction Gas Temp.	吸入气体的过热度为 0.5℃以上 Superheat:0.5KMin	无吸入液体而产生的声 音（无电流及振动的增 加） No excessive noise	距压缩机入口 50mm 处吸气配管 温度，满足项目 5、6、7、11 At around 50mm from the comp. suction head Items 5, 6, 7, and 14 shall be kept
9	开/停周期 On/Off Period	运转时间: 至少应使油面回到指定油位所需的时间 ON period: Until the oil level returns center of the cylinder 停止时间: 至少应使高低压达到平衡所需的时间 OFF period: Until pressure balance is obtained		1 个周期: 10 分钟以上 停止时间: 3 分钟以上 At least 7minutes - ON/ 3 minutes - OFF is recommendable.
10	制冷剂封入量 Refrigerant Charge	1396g Max.		油比重为 0.94kg/L Gravity of the oil :0.94 kg/L

11	压缩机油面 Minimum Oil Level	单缸：气缸中部以上 1cyl: center of the cylinder 双缸：上气缸中部以上 2cyl: center of the up cylinder	单缸：不低于下轴承法 兰面 1cyl: Top of the Bearing flank 双缸：下气缸中部以上 2cyl:center of the low cylinder	
12	异常压力上升 Pressure Rise	4.9 MPa (G) Max		热交换器风扇停止等 ex. Condenser fan motor failure
13	水分 System Moisture Level	200ppm Max		
14	非冷凝气体 System non condensate gas Level	制冷回路中非冷凝气体在 1% (容积比) 以下 残留氧气 0.1% (容积比) 以下 1 Vol.% Max Residual Oxygen 0.1Vol.% Max		抽真空 24 小时后真空度应在 1.01kPa 以下 24 hrs. after vacuuming: 1.01kPa Max
15	倾斜 Tilt	使用时压缩机的倾斜在 5° 以内 5 deg. Max		

备注 Remarks:

1. 运转频率 Operating Frequency

(1) 按额定的运转频率运行

Frequency range in the Approval Sheet shall be carefully observed.

(2) 压缩机应在允许使用频率范围内使用; 尽管没有明确规定 $\Delta f/\Delta t$, 但在 50 到 75s⁻¹ 频率范围内应至少运转 30 秒钟, 以确保供油充足

Though the step $\Delta f/\Delta t$ is not specified, operate for at least 30 seconds at a frequency between 50 and 75s⁻¹ to prevent oil shortage.

2. 压缩机电源

Power Supply to Compressor

(1) 压缩机只能在专用的驱动器下使用, 不能施加商用电源

You shall be used the DC Inverter circuit. (Do not supply commercial power source.)

3. 安装注意事项 Compressor installation notes

(1) 压缩机在开封状态下, 请勿放置 15 分钟以上

Installation shall be completed within 15 minutes, after removing the rubber plugs.

(2) 压缩机请勿压缩空气

Do not compress air.

(3) 压缩机在真空状态下请勿通电;

Do not energize under vacuumed condition.

(4) 压缩机在搬运时, 请勿严重倾斜、跌落或受冲出

Do not tilt over when carrying.

(5) 请勿损坏压缩机的涂装表面、接线盒盖及气液分离器等

Do not remove the paint, Cover, Accumulate.

(6) 禁止压缩机反转

Do not revers compressor operation.

(7) 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；

Refrigerant should be charged from the end of condenser of refrigerating systems. Never charge refrigerant to the compressor directly.

(8) 压缩机装入系统并充氟后，要运转 2~3 秒钟，使运动部件充分润滑；

The compressor should be operated for 2~3 seconds after charging refrigerant Into the system so proper lubrication results.

(9) 配管（铜管）应力推荐如下

Copper Piping Stress (half amplitude).

启动/停止时 Start & Shutdown: 34.32 N/mm² Max

运转 Run : 12.26 N/mm² Max

电线的选定

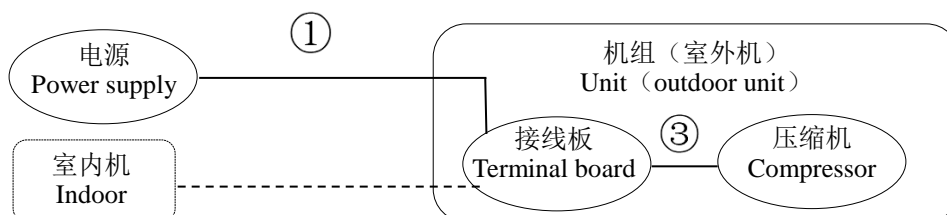
SELECTION OF ELECTRICAL WIRE

压缩机启动时会产生很大的电流，从而造成电压下降，因为电压下降的大小有时可能会造成压缩机启动困难，所以，根据电动机启动电流，推荐 2 项的电线规格选定表

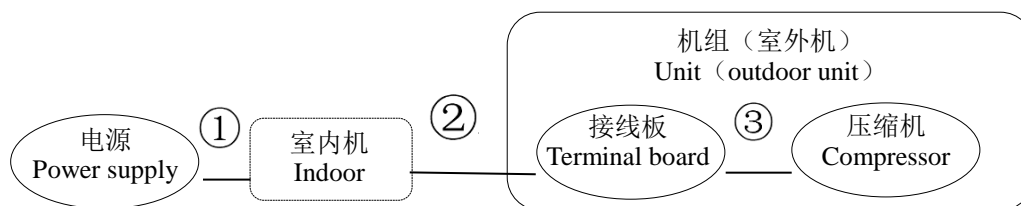
The voltage drop will be occurred due to the large current at the compressor starting. It should be difficult to start the compressor depending upon the voltage drop level, Therefore, we would recommend you to select the wire size from the below "electrical wire size selection table" which is depended on motor's starting current.

1、系统型式 Type of unit

(01) 一体型系统和商用系统 Window & Commercial Type unit



(02) 分体型系统 Split type (Separate type)



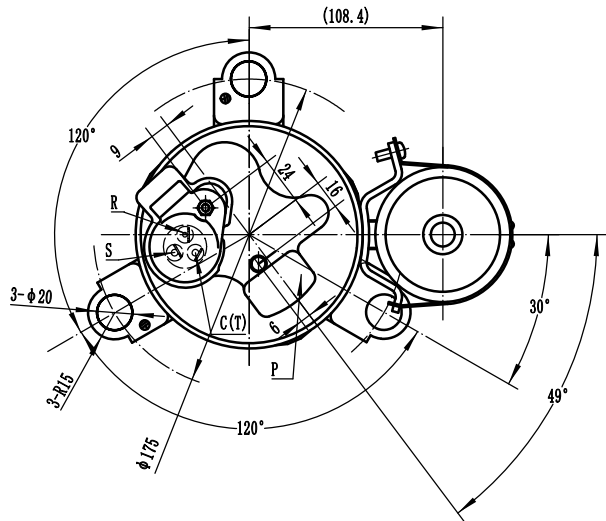
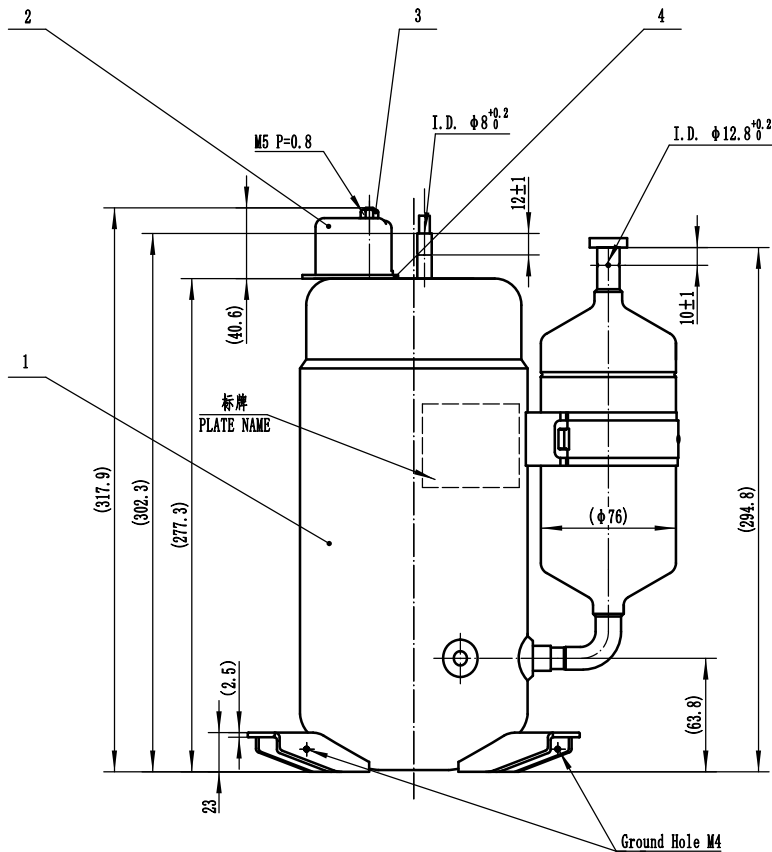
2、电线尺寸选定表 Selection of electrical wire's size table

启动电流 (A) Starting Current	配线规格 Size of electrical wire (mm ²)							
	记号①或记号①+② (耐热温度60℃以上) Remark③ or Remark①and② (heat-resistance Temperature: "60℃"min.)							记号③ (耐热温度120℃以上) Remark③ (heat-resistance temperature: "120℃"min.)
	3m max	5m max.	10m max	15m max.	20m max	30m max.	50m max	1m max.
20max	2.0	2.0	2.0	2.0	3.5	5.5	8.0	2.0
30max	↑	↑	↑	3.5	5.5	↑	14.0	↑
40max	↑	↑	3.5	5.5	↑	8.0	↑	↑
50max	↑	↑	↑	↑	8.0	14.0	22.0	↑
60max	↑	↑	5.5	↑	↑	↑	↑	↑
70max	3.5	3.5	↑	8.0	14.0	↑	↑	3.5
80max	↑	↑	↑	↑	↑	22.0	30.0	↑
90max	↑	↑	↑	14.0	↑	↑	↑	↑
100max	↑	↑	8.0	↑	↑	↑	38.0	↑
110max	↑	↑	↑	↑	↑	↑	↑	↑
120max	↑	5.5	↑	↑	22.0	30.0	↑	↑

3、有关接地的注意事项Caution of ground

压缩机中装有本公司确认的电机保护装置，但电机保护装置并不是全部都能保护，由于种种原因，电机有时也可能有损伤，所以请在成品、机器等上设置接地部件，安装时请务必接地。

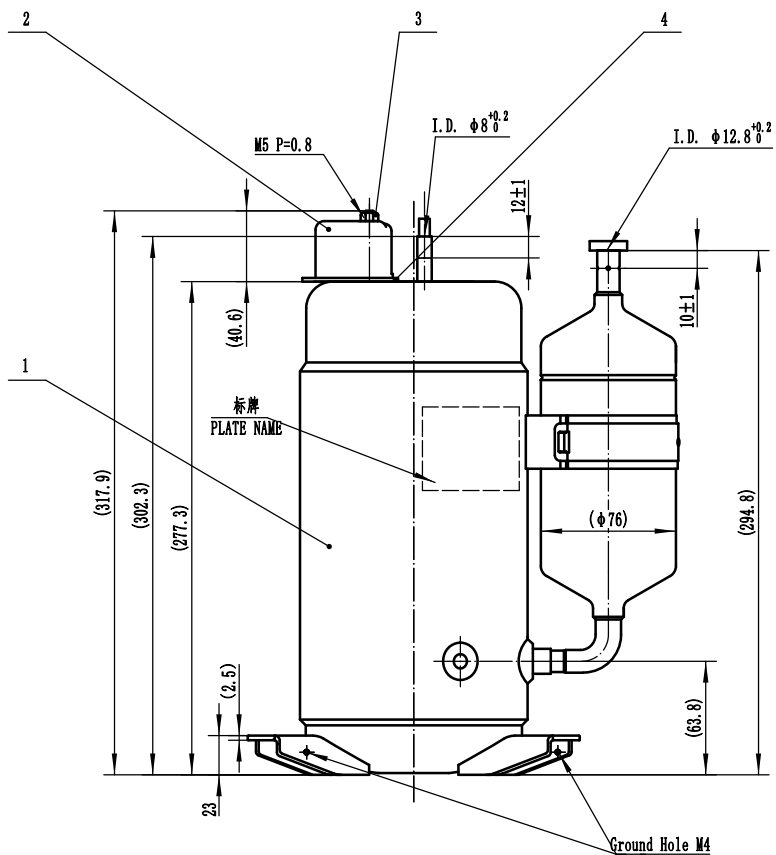
Compressor shall be used the motor protector which our company approved onl. This motor protector does not cover the protection against all. Due to the various factors the compressor's motor may occur to burn out. Therefore, please be sure that the production shall be designed with the ground and installed it in the field.



技术要求

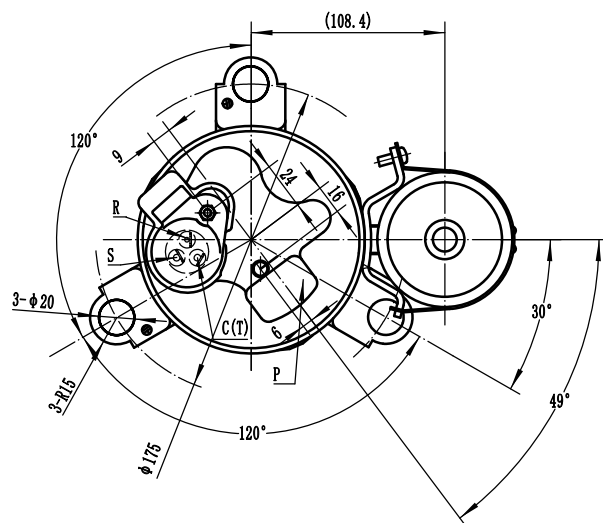
- M5螺母的拧紧力矩为1.47~1.96N.m(15~20kgf.cm);
NUT 5 TIGHTENING TORQUE IS 1.47~1.96N.m(15~20kgf.cm)。
- 未注尺寸公差±2, 未注角度公差±2°。
DIMS TOLERANCE ±2, ANGULAR TOLERANCE ±2°。

4	201 2 5303 Q5D 00X	接线盒胶垫 GASKET TERMINAL	1		
3	801 2 8305 102 00X	M5螺母 NUT5	1		
2	201 2 6194 Q64 00X	接线盒盖 COVER TERMINAL	1		
1	802 MOE 45	压缩机 COMPRESSOR	1		
序号 No	代号 Code	名称 Name	数量 Q'TY	材料 Material	备注 Remark
设计 Designed		压缩机外形图 COMPRESSOR OUTLINE	802 MOE 45		
审核 Reviewed			重量 Weight	比例 Scale	1:3
标准化 Standardized			沈阳中航机电三洋制冷设备有限公司 AVIC ELECTROMECHANICAL (SHENYANG) SANYO REFRIGERATION EQUIPMENT CO., LTD.		
批准 Approved					

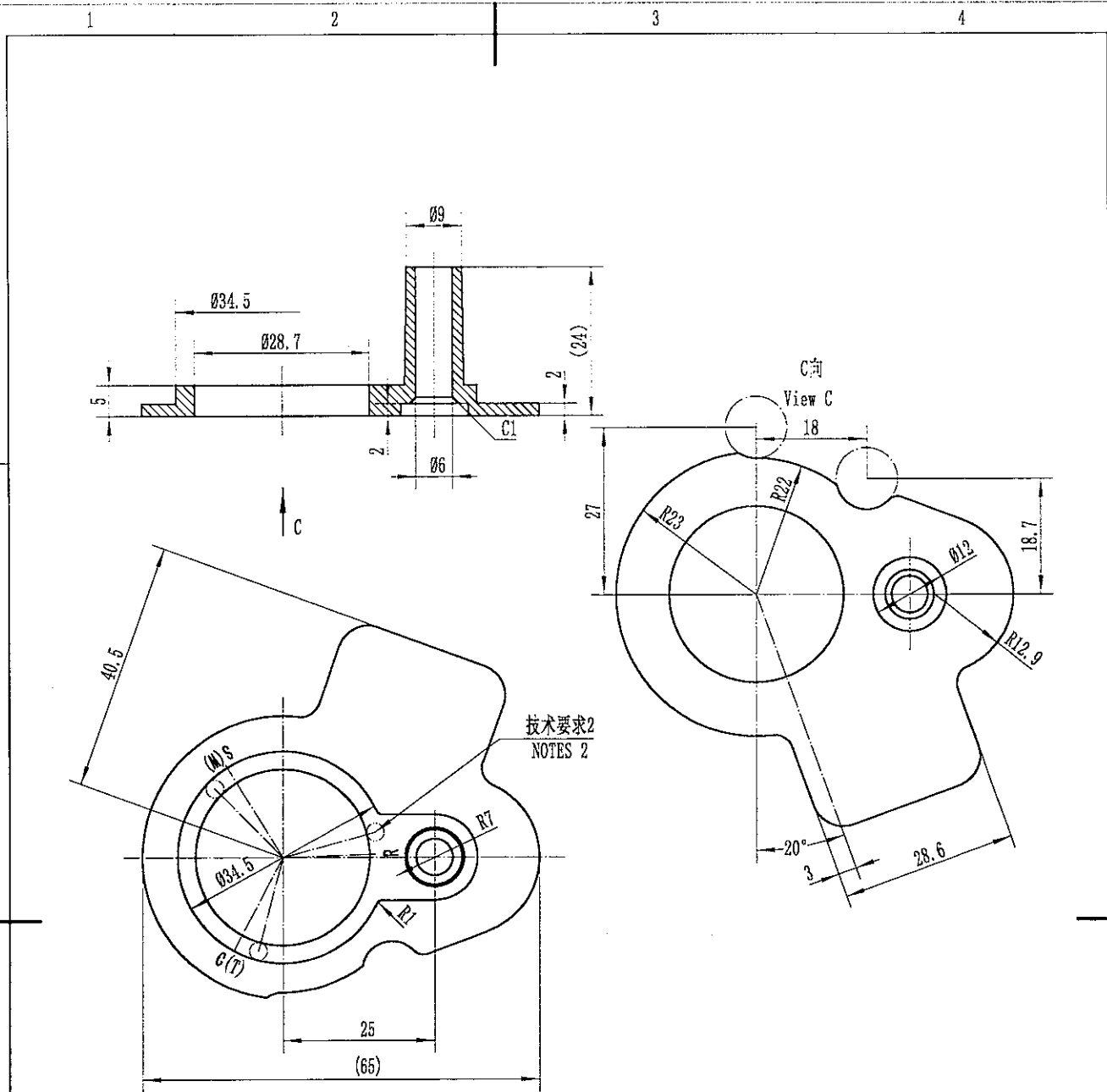


技术要求

- M5螺母的拧紧力矩为1.47~1.96N.m(15~20kgf.cm);
NUT 5 TIGHTENING TORQUE IS 1.47~1.96N·m(15~20kgf·cm)。
- 未注尺寸公差±2, 未注角度公差±2°。
DIMS TOLERANCE ±2, ANGULAR TOLERANCE ±2°。



4	201 2 5303 Q5D 00X	接线盒胶垫	1		
3	801 2 8305 102 00X	M5螺母	1		
2	201 2 6194 Q64 00X	接线盒盖	1		
1	802 MOE 45	压缩机	1		
序号 No	代号 Code	名称 Name	数量 Q'TY	材料 Material	备注 Remark
设计 Designed		压缩机外形图 COMPRESSOR OUTLINE	802 MOE 45		
审核 Reviewed			重量Weight	比例 Scale	1:3
标准化 Standardized			沈阳中航机电三洋制冷设备有限公司 AVIC ELECTROMECHANICAL (SHENYANG) SANYO REFRIGERATION EQUIPMENT CO., LTD.		
批准 Approved					

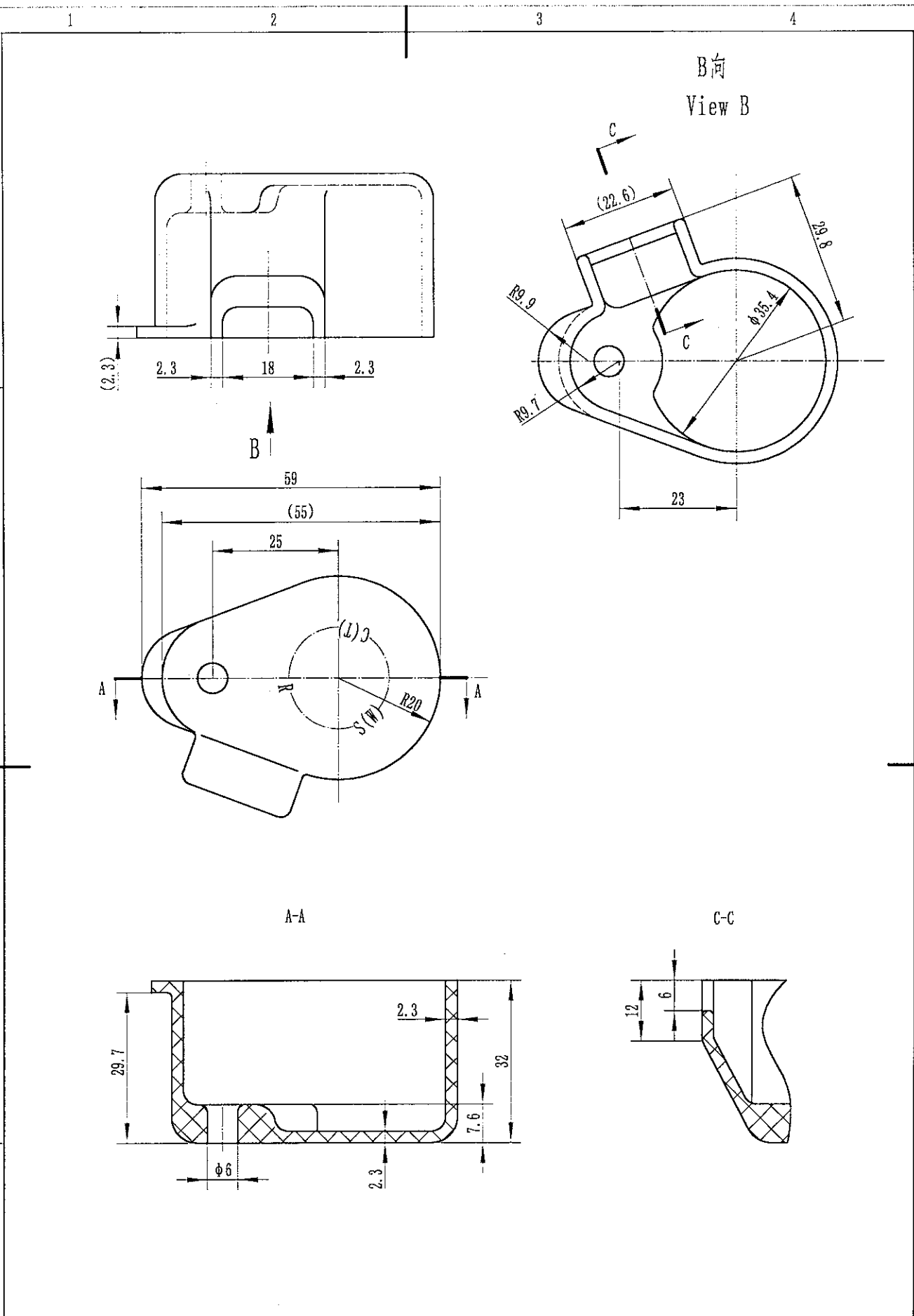


技术要求2
NOTES 2

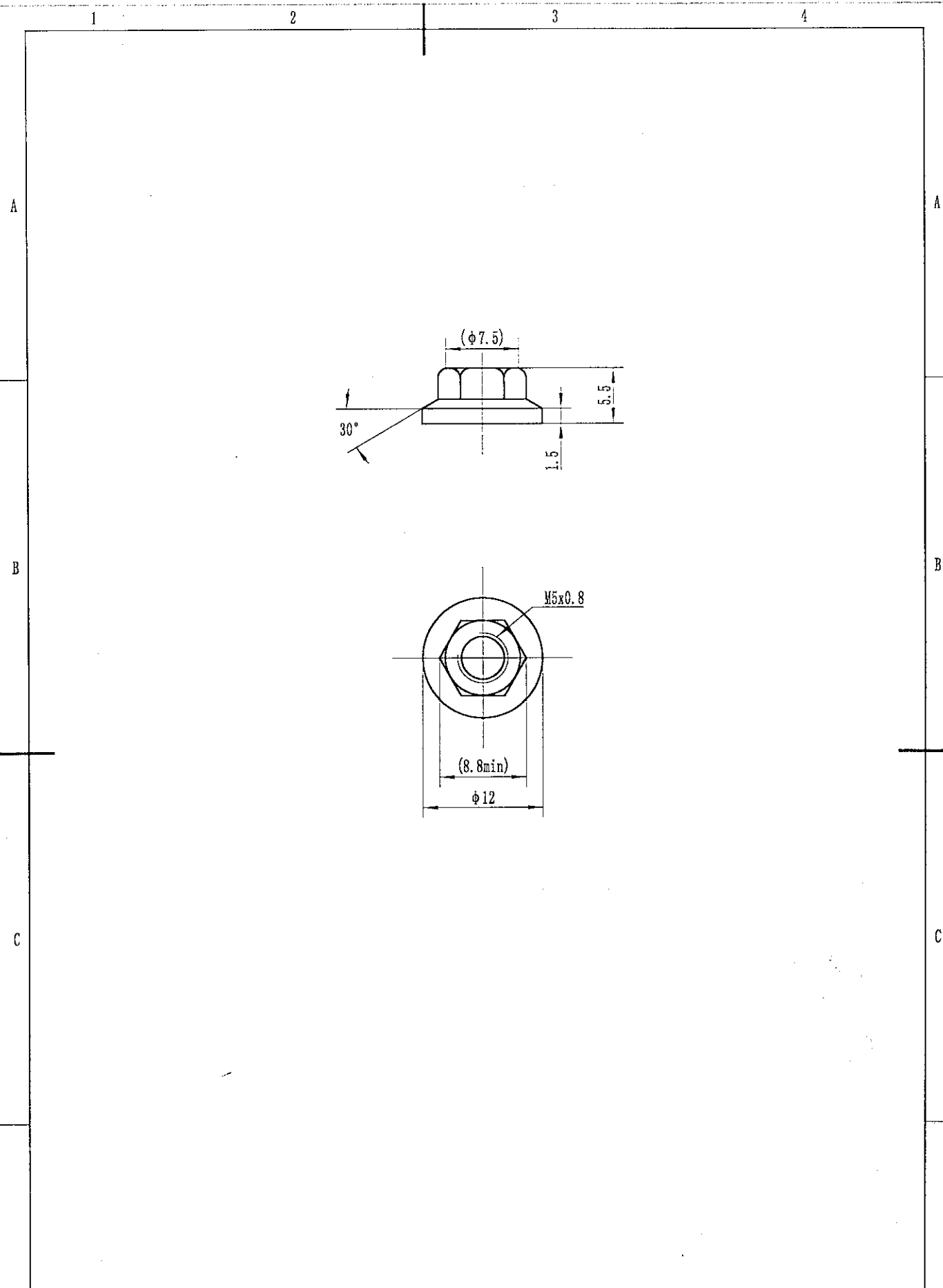
技术要求 NOTES

1. 硬度Hs70±5, 颜色为黑色;
Hardness: Hs70±5, Color: Black;
2. 图示位置为白色文字: C(T)、R、S(W).
This position is white letter: C(T)、R、S(W).

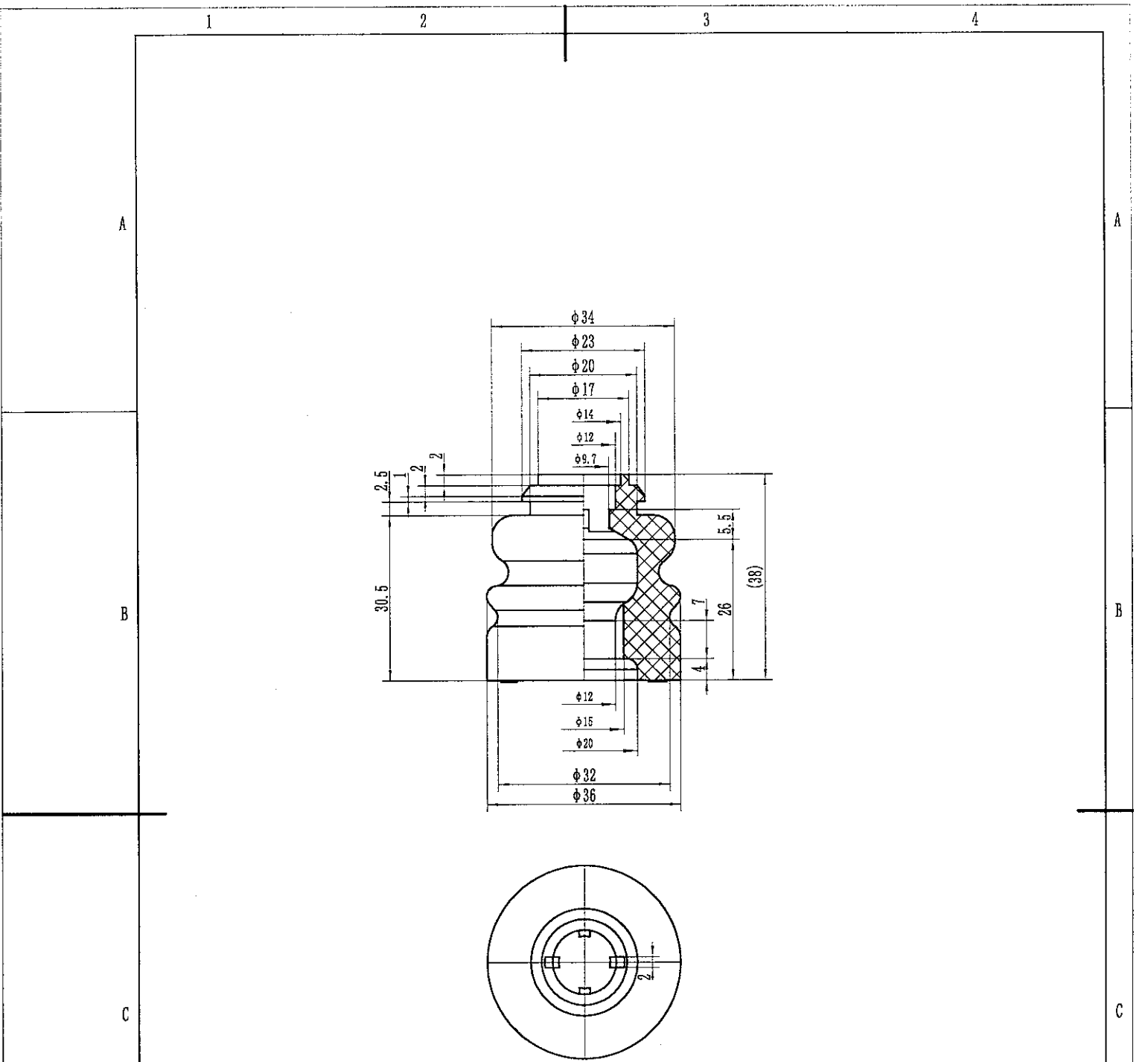
设计 Designed	马晓亮	2019.3.7	接线盒胶垫 GASKET TERMINAL 阻燃型硅橡胶 Flame retardant silicone rubber	201 2 5303 Q5D 00X		
审核 Reviewed	王秋亮	2019.4.2		重量Weight	比例 Scale	1:1
标准化 Standardized	刘磊	2019.4.2		沈阳中航机电三洋制冷设备有限公司 AVIC ELECTROMECHANICAL (SHENYANG) SANYO REFRIGERATION EQUIPMENT CO., LTD.		
批准 Approved	王树鹏	2019.4.2				



设计 Designed	马晓亮	2019.3.7	接线盒盖 COVER TERMINAL	201 2 6194 Q64 00X	
审核 Reviewed	王文亮	2019.4.2		重量Weight	比例Scale 1:1
标准化 Standardized	刘磊	2019.4.2	PBT	沈阳中航机电三洋制冷设备有限公司 AVIC ELECTROMECHANICAL (SHENYANG) SANYO REFRIGERATION EQUIPMENT CO., LTD.	
批准 Approved	夏树楷	2019.4.2			



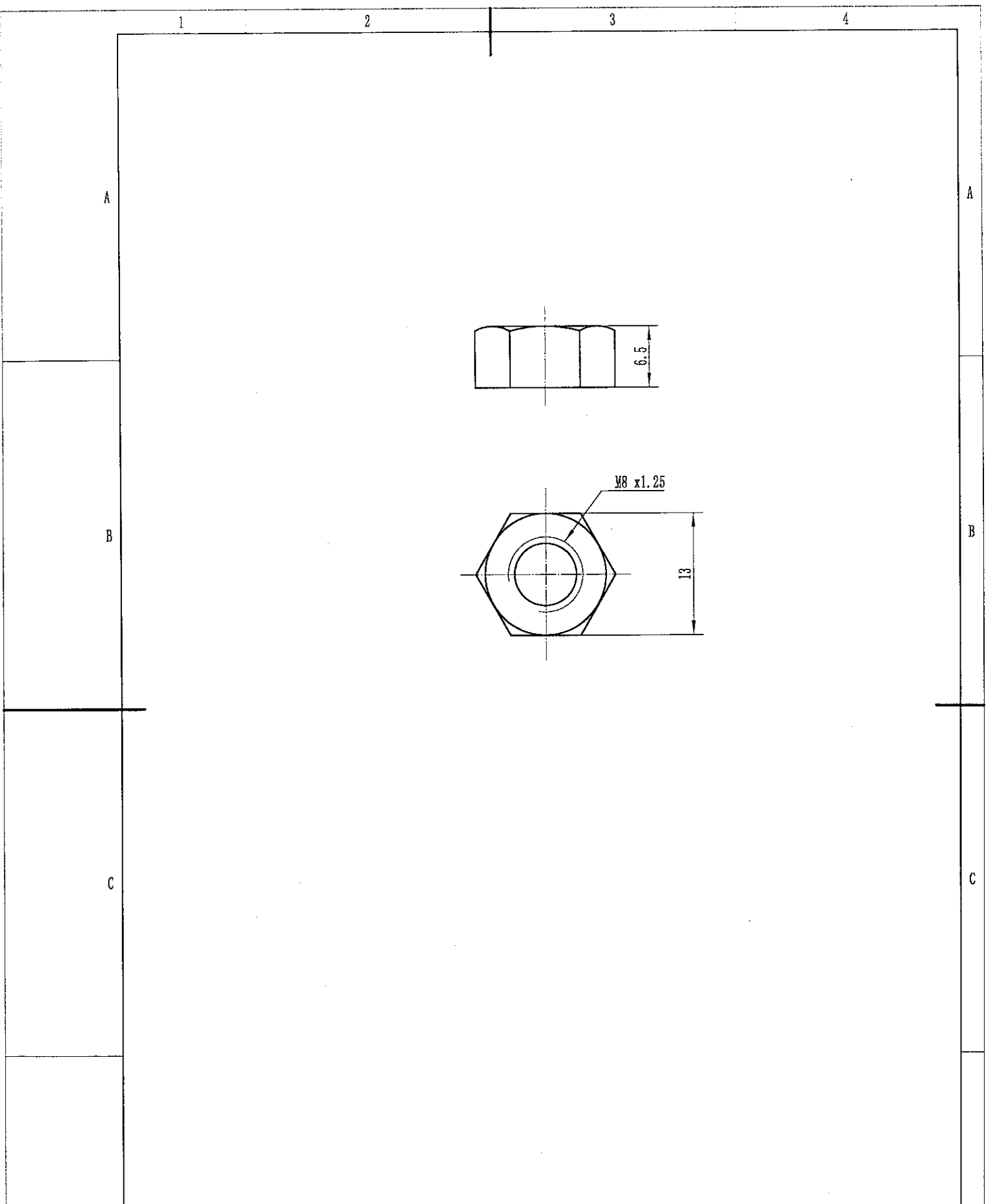
设计 Designed	马晓亮	2019.3.7	M5螺母 NUT 5	801 2 8305 102 00X	
审核 Reviewed	王承高	2019.4.2		重量Weight:	比例 Scale: 2:1
标准化 Standardized	刘磊	2019.4.2	A3	沈阳中航机电三洋制冷设备有限公司	
批准 Approved	王树刚	2019.4.2		AVIC ELECTROMECHANICAL (SHENYANG) SANYO REFRIGERATION EQUIPMENT CO., LTD.	



技术要求 NOTES

- 1、硬度: HS40±5 颜色: 黑色;
Hardness: HS40±5; Color: Black;
- 2、未注公差±1。
DIMS TOLERANCE ±1.

设计 Designed	马晓亮	2019.3.11	整体减振胶垫 CUSHION RUB 乙丙橡胶 EPDM	819 2 6920 119 00X		
审核 Reviewed	王尔瑞	2019.4.2		重量Weight	比例 Scale	1:1
标准化 Standardized	刘磊	2019.4.2		沈阳中航机电三洋制冷设备有限公司 AVIC ELECTROMECHANICAL (SHENYANG) SANYO REFRIGERATION EQUIPMENT CO., LTD.		
批准 Approved	王尔瑞	2019.4.2				



设计 Designed	马亮	2019.3.11	底脚螺母 NUT SPECIAL A3	819 2 6919 105 00X		
审核 Reviewed	王永高	2019.4.2		重量Weight	比例 Scale	2:1
标准化 Standardized	刘磊	2019.4.2		沈阳中航机电三洋制冷设备有限公司		
批准 Approved	王树鹏	2019.4.2		AVIC ELECTROMECHANICAL (SHENYANG) SANYO REFRIGERATION EQUIPMENT CO., LTD.		

1

2

3

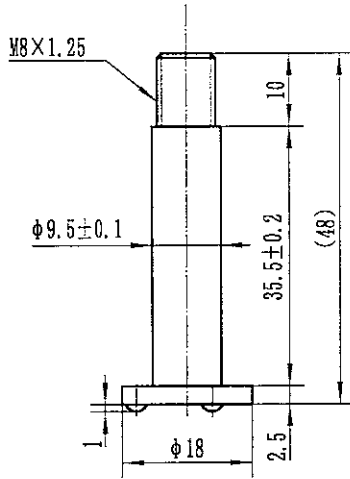
4

A

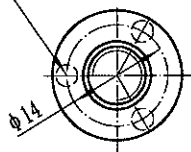
A

B

B



3-φ3凸点 Protruding point
 圆周三等分 Trisection



C

C

D

D

设计 Designed	马晓亮	2019.3.11	底脚螺栓 SCREW SPECIAL	819 2 6917 110 00X		
审核 Reviewed	王永亮	2019.4.2		重量Weight	比例 Scale	1:1
标准化 Standardized	刘磊	2019.4.2	SWRM6	沈阳中航机电三洋制冷设备有限公司 AVIC ELECTROMECHANICAL (SHENYANG) SANYO REFRIGERATION EQUIPMENT CO., LTD.		
批准 Approved	王群峰	2019.4.2				

1

2

3

4