*** 50Hz YH880C1G-100 Specification**

产品规格书 Specification		备注 Notes
标准型号 Standard model	YH880C1G-100	基础型号 Basic model
拓展型号 Extended model		
拓展型号 Extended model		
拓展型号 Extended model		
拓展型号 Extended model		
拓展型号 Extended model		

修订记录 Revision record			
版本 Version	修订人 Reviser	描述 Description	日期 Date

审核人 Checked　　日期 Date

批准人 Approved　　日期 Date

1 规格参数 Specifications

1.1 基本性能指标 Basic Performance

型号 Model	YH880C1G-100(including extended model)
型式 Type	低压腔式全封闭涡旋压缩机 LP Cavity Hermetic Scroll Compressor
应用 Application	空调 AIR
制冷剂 Refrigerant	R410A
排量 Displacement (cc/rev)	332.6
制冷量 Cooling Capacity (W) [a]	86000
输入功率 Input Power (W) [a]	26060
运行电流 Running Current (A) [a]	47
制冷能效比(CoolingCOP) [a]	3.3
电源 Power (V/PH/Hz)	380-420V/3~/50Hz or 460V/3~/60Hz
最低运行电压 Lowest Running Voltage (V)	342
最高运行电压 Highest Running Voltage (V)	462
堵转电流 LRA (A)	285
最大运行电流 MOC (A) [b]	62
额定转速 Rated Speed (r/min)[a]	2900
压缩机重量（含油）(kg) Compressor Weight With Oil	108
润滑油种类 Oil type	POE
润滑油运动粘度(cSt,40℃)	32
润滑油密度 Oi Density (kg/L,20℃)	0.977
初次注油 First Charge (L) 重新注油 Recharge (L)	5.5 5.3
油循环率 Oil Circulation (%)[a]	<1
额定噪音(声功率级) (dBA)[c] Rated Sound (Sound Power)	78
运行范围内最大运行噪音(声功率级) (dBA) Max Running Sound (Sound Power)	85
最大振动位移值 峰-峰 (mm) [d] Max Vibration Displacement Peak-Peak	<0.12
水分含量 Maximum Moisture (mg)	< 1500
杂质含量 Maximum Impurity (mg)	< 180
最低启动电压 LVS (V) [e]	323
最大负载运行时最低电压 MOV (V) [f]	342
启动电容(μF/V) Start Capacitor	/
启动继电器 Start Relay	/

运行电容(μF/V) Run Capacitor	/
接线盒 IP 等级 IP Rating	IP54
压缩机颜色 Compressor color	黑色

1.2 电气参数 Motor Parameters

电机形式 Motor Type	三相异步电动机 Induction motor
电机级数 Pole	2
电机绝缘温度(℃) Motor Insulation Temperature	130（B 级）
线间电阻 UV(CS) Terminals Resistance UV (Ω，25℃)	0.33（ ± 10%）
线间电阻 UW(CR) Terminals Resistance UW(CR) (Ω, 25℃)	0.33（ ± 10%）
线间电阻 VW(SR) Terminals Resistance VW(SR) (Ω, 25℃)	0.33（ ± 10%）
电气强度 Electrical strength	2000VAC / 1s / 50Hz, Leakage Current≤5mA
绝缘电阻 Insulation Resistance (MΩ)	>20
接地电阻 Ground Resistance (Ω)	<0.1

1.3 安全运行限制 Safety operation restriction

气密性检漏压力 Air tightness Test (Mpa) (MPa)	3.8-4.0
最大运行压力 Highest Running Pressure	
高压侧 High Side (Mpa) 低压侧 Low Side (Mpa)	H4.3/L2.0
压缩机内空余容积(不含油) Spare volume (without oil)	
高压侧 High Side (L) 低压侧 Low Side (L)	H1.75/L14.7
最大冷媒充注量(kg）MAX Refrigerant Charge	See The Notes
排气温度上限 Max Discharge Temperature℃	≤125
启停周期 Compressor Start-Stop Revolution	Above 3min

1.4 性能指标工况说明 Running Condition Notes：

工况 Condition	工况说明 Notes
a	额定工况 First Rated Running Point
b	最大负载工况，90%额定电压 Maxload condition@90%rated voltage
c	额定工况，A 加权声功率级平均值 First Rated Point, A class average sound power
d	额定工况，运行时压缩机外壳法向最大位移 First Rated Point, Maximal Shell Running Displacement Under Normal Direction
e	排气压力和吸气压力=40℃时制冷剂的饱和压力 Discharge & Suction Pressure= Refrigerant 40℃ Saturation Absolute Pressure
f	最大负载工况 Maxload condition

2 额定工况， 制热量和能效比不低于名义值 95%，功率不高于名义值 105% (性能与噪音值需在额定试验工况运行 48 小时磨合后进行测试)

Rated Condition，Allowed capacity and cop ≥95% Rated，power≤105 Rated (Performance And Sound Test Needed 48hrs Break In Running)

项目 SN	额定工况 Rated condition	最大负载工况 Max load condition
蒸发℃/冷凝℃/过热 K /过冷 K /环温℃ ET℃/CT℃/SHK/SCK/AT℃	7.2/54.4/11.1/8.3/35	11.9/65.5/11.9/8.3/46.1
制热量允差 Capcitiy deviation	≥95.0%	-
功率允差 Power deviation	≤105.0%	-
能效允差 COP deviation	≥95.0%	-

3 内置保护 Internal Protection Parts

保护方式 Protect method	配置 Configuration	参数 date	
内置过载保护 Internal protector Protection	有 With	型号 SN	INT69-E1
		打开温度（℃） Open Temperature	130±5
		复位方式 Reset mode	保护器断电重启 Protector power-off restart
内置压力保护器 Internal Pressure Release Valve Protection	有 With	3.97-4.31MPa	

4 压缩机附件 Standard Configuration

名称 Description	图号 P/N	规格 Specifications	数量 PCS
T 型接头 T-Block	070-3009-00	/	1
格兰头 Cable gland	070-3013-00	M40×1.5	1
脚垫 Grommet	070-3016-00	/	4
导套 Sleeve	010-0014-00	/	4
底脚螺钉 Screws for Mounting Kits 螺母 nut	GB/T5783-2000 GB/T6170-2000	M8×70 8.8 级发黑处理 M8 发黑处理	4 4
底脚螺钉垫片 Nord-lock group for Mounting Kits	GB/T96.1 10	/	8
防松垫片 Nord-lock group	GB/T862.2	5MM	1
T 型接头螺钉 T-Block Screws	050-3027-00	六角法兰面螺栓 #10-32UNF	4

5 压缩机运行范围 Compressor Running Envelop



6 压缩机性能参数表 Compressor Performance Sheet

- 性能参数基于运行范围内的吸气过热度 11.1k，冷凝过冷度 8.3k；

Superheat based on envelop, subheating is11.1k ,subcooling is 8.3k.

- 多项式系数计算的性能参数只适用于运行范围内；

The performance parameters calculated by polynomial coefficients are only applicable to the operating range

- 压缩机的制热量、制冷量和功率可以通过多项式进行计算。

Tthe heating capacity, cooling capacity and power of compressor can be calculated by polynomial

6.1 性能参数表 Compressor Performance Sheet

Invotech Scroll YH880C1G-100 Compressor Performance Sheet
英华特 YH880C1G-100 压缩机性能参数表

		-20	-15	-10	-5	0	5	10
Cap W 制冷量W	65					52553	64430	78108
	55			45630	55762	67408	80979	96887
	50		40148	49355	59930	72287	86837	103992
	45	34645	42890	52360	63467	76623	92240	110731
	40	37363	45692	55514	67240	81284	98057	117972
	35	40920	49421	59683	72117	87137	105154	
	25	54021	63130	74537	88652	105888		
Power W 功率 W	65					33076	33516	33862
	55			25987	26328	26603	26832	27035
	50		23121	23434	23694	23923	24139	24364
	45	20574	20873	21133	21376	21620	21886	22193
	40	18545	18820	19091	19377	19698	20075	20527
	35	16654	16967	17310	17702	18163	18713	
	25	13305	13881	14553	15341	16267		

6.2 多项式十系数 Ten coefficients of polynomial

多项式表达式 Expression	z = p0 + p1*x + p2*y + p3*x^2 + p4*x*y + p5*y^2 + p6*x^3 + p7*x^2*y + p8*x*y^2 + p9*y^3		
物理量解释 Description	z:制冷量 W 或功率 W; z:Capcity W or Power W 特别说明：制热量 W = 制冷量 W + 功率 W Notes: Hcap W= Ccap W+ Power W x:蒸发温度℃ x:ET℃ y:冷凝温度℃ y:CT℃ p0~p9:多项式系数 p0~p9:coefficients of polynomial		
制冷量系数 Ccap factor	数值 Value	功率系数 Power factor	数值 Value
p0	234.3367	p0	18.59224
p1	5.338111	p1	0.665753
p2	-8.48039	p2	-0.3001
p3	0.097469	p3	0.006505
p4	-0.07088	p4	-0.02482
p5	0.162608	p5	0.008432
p6	0.00055	p6	2.66E-05
p7	-0.00107	p7	-0.00013
p8	0.000353	p8	0.000248
p9	-0.00116	p9	-6E-06

说明：多项式的系数是基于一定样本数据的拟合结果，其数据可供压缩机选型参考，但无法完全替代用户的测试。

Notes：Coefficients of polynomial is based on the fitting results of some sample data, which can be used as a reference of compressor selection, but can not completely replace customer 's test.

7 注意事项 Notes

7.1 压缩机不得被当作系统抽真空的工具使用，确保系统制冷剂充注完成后才能启动；
如果现场条件无法一次性完成制冷剂充注，应至少充注 50%的所需制冷剂，并仔细确认压缩机及系统状态安全的情况下，开机启动并完成剩余制冷剂的充注；
The compressor shall not be used as a tool for vacuumizing the system, and can only be started after the refrigerant filling of the system is completed; If the field conditions can not complete the refrigerant charging at one time, at least 50% of the required refrigerant should be charged, and the

compressor and system should be carefully confirmed to be safe, and the remaining refrigerant should be charged

7.2 不能直接从压缩机的吸、排气管等接口及附近充注制冷剂，尽量选择从气分、储液罐等远离压缩机接口的位置充注制冷剂，防止液态制冷剂迁移进入压缩机吸气腔内，造成带液启动；
Refrigerant cannot be directly filled from the suction and exhaust pipe interfaces of the compressor and their vicinity, but should be filled as far as possible from the gas points, liquid storage tanks and other locations far away from the compressor interfaces to prevent liquid refrigerant from migrating into the suction cavity of the compressor and causing startup with liquid;

7.3 最大制冷剂充注量的说明：润滑油和制冷剂的重量比应≥0.4；
Description of maximum refrigerant charge: the weight ratio of lubricating oil to refrigerant should be ≥ 0.4

7.4 不得真空运行、空转或长时间逆转；
Do not run in vacuum, idle or reverse for a long time

7.5 不得使用压缩机标明的制冷剂外的其他气体或物质；
Do not use any gas or substance other than the refrigerant indicated by the compressor

7.6 不得超出压缩机标明的运行范围运行，应尽量避免吸气带液启动，正常运行时应保证吸气侧是过热气体；
Do not run beyond the indicated operating range of the compressor, and try to avoid starting with suction liquid. During normal operation, ensure that the suction side is superheated gas

7.7 压缩机吸气、排气等接口的胶塞打开后，需在 15 分钟内完成焊接和组装工作；+
After the rubber plugs of the suction and exhaust interfaces of the compressor are opened, the welding and assembly work should be completed within 15 minutes

7.8 压缩机不得频繁启停，以免压缩机内润滑油随制冷剂被大量地排出压缩机；连续运行需 10 分钟以上，应使油回到最低油位以上（最低油位：50%油充注量的位置）；停机再次启动间隔 3 分钟以上，应使高低压达到平衡；
The compressor shall not be started and stopped frequently, so as to prevent the lubricating oil in the compressor from being discharged in large quantities along with the refrigerant.

7.9 压缩机启动前，排气压力-吸气压力≤0.3MPa；
before the compressor starts, the exhaust pressure-suction pressure ≤ 0.3 MPa

7.10 运行电压范围，应在额定电压的±10%以内；
Operating voltage range shall be within 10% of rated voltage

7.11 低温工况的应用，由于大量制冷剂可能会迁移到压缩机腔体内，沉积在压缩机底部，启动时润滑油随制冷剂进入涡旋盘导致液击和润滑油被大量排出，造成压缩机缺油而磨损，建议加装曲轴加热装置，曲轴加热装置的功率推荐 120W；
In the application of low temperature conditions, a large amount of refrigerant may migrate into the compressor cavity and deposit at the bottom of the compressor. When starting, the lubricating oil enters the scroll with the refrigerant, causing liquid hammer and a large amount of lubricating oil to be discharged, causing the compressor to be worn due to lack of oil. It is recommended to install a crankshaft heating device, and the power of the crankshaft heating device is recommended to be 120 W

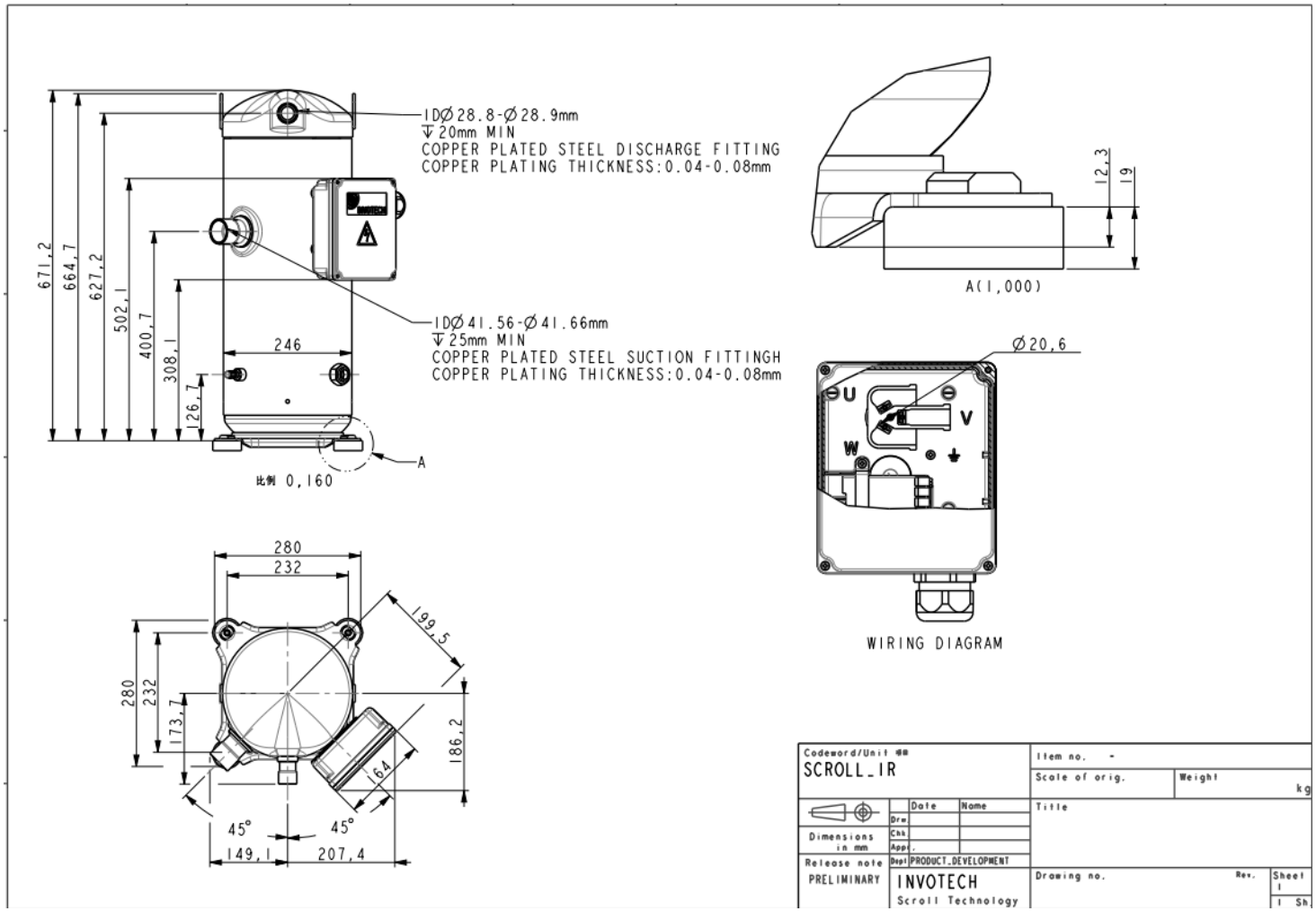
7.12 系统应配置必要的压力、温度、过流、缺相等保护及回油装置等；
The system should be equipped with necessary pressure, temperature, overcurrent, lack of equal protection and oil return devices

7.13 压缩机搬运、安装过程中不得平放、倒置，运输及运行过程中最大倾斜角度 15°；

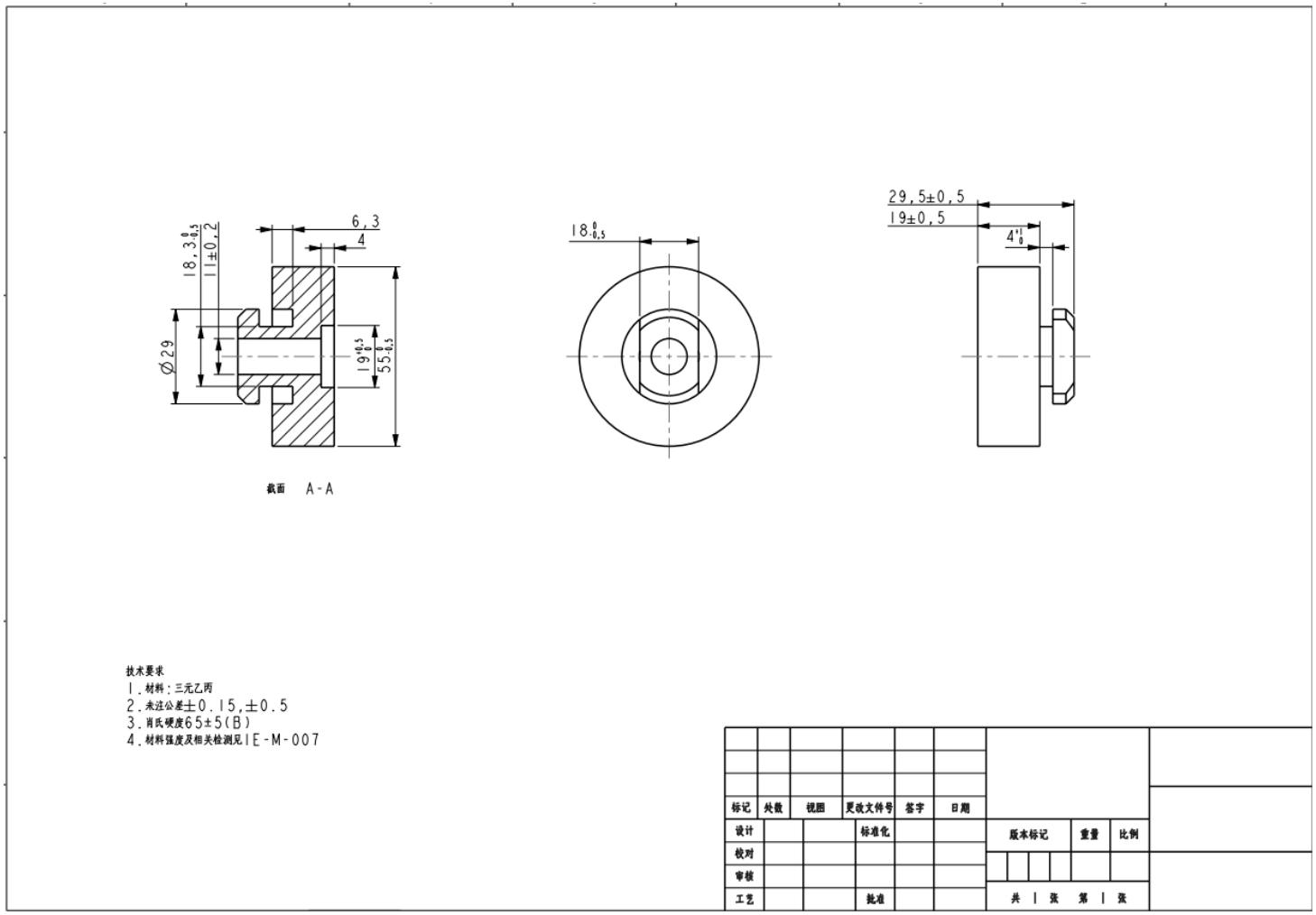
The compressor shall not be laid flat or inverted during handling and installation, and the maximum inclination angle during transportation and operation is 15

8 压缩机图纸

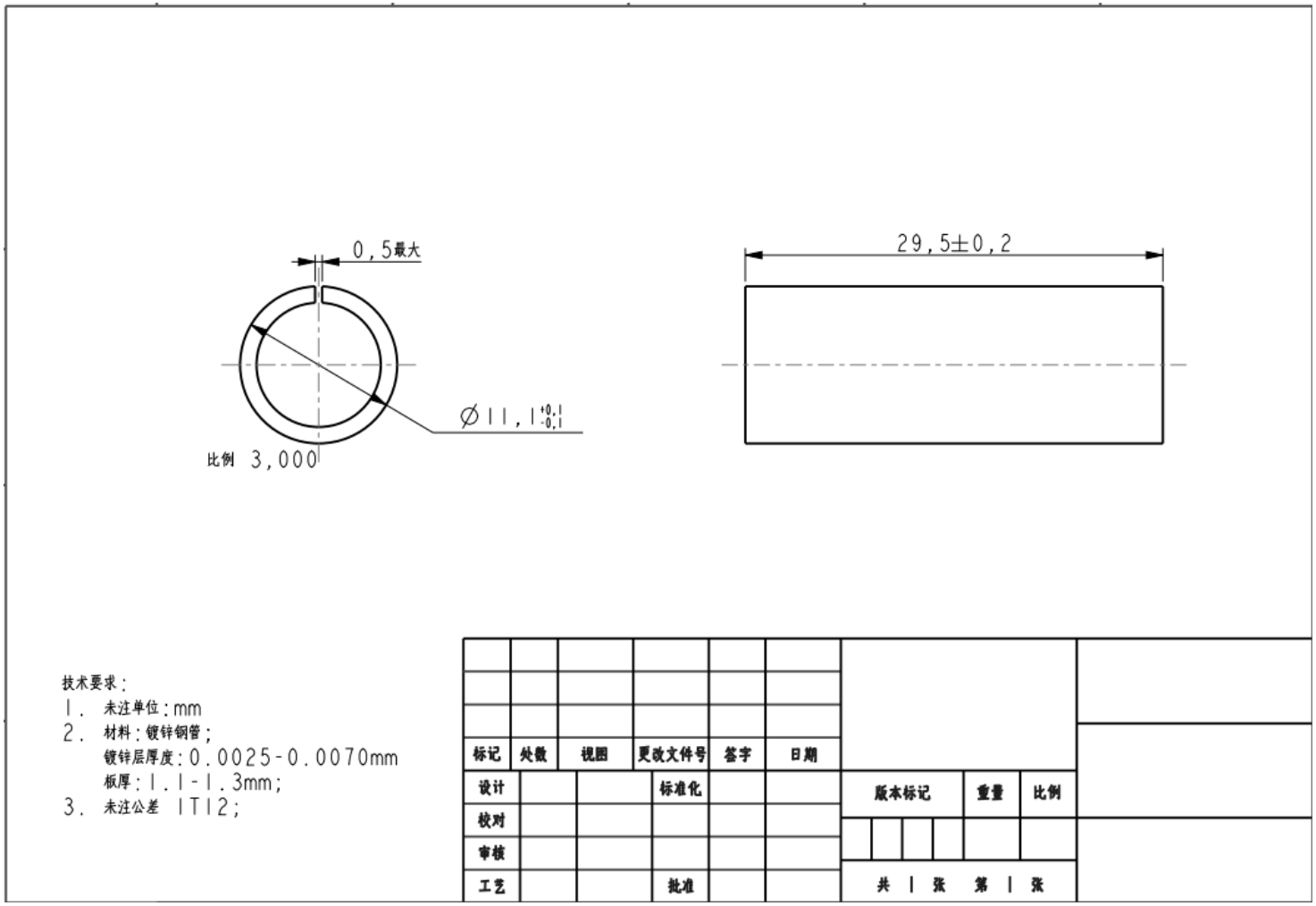
8.1 压缩机外形图 Compressor Outline Dimensions



8.2 脚垫图纸 Grommet



8.3 导套图纸 Sleeve



9 压缩机接线示意图 compressor wiring diagram

