客户名称/Customer：_____ 发行编号/NO. ： CG20141235

发行日期/DATE： 2014-12-30

全封闭型压缩机技术规格书

HERMETIC COMPRESSOR SPECIFICATION

机型/Model：DSG320S1UFT

客户承认栏/Accept Marking：

_____

本规格书从贵公司承认之日起生效，一式贰份。贵公司负责人承认签名之后请返回我公司一份，贵公司保留一份。

This document will be effective with your authorized signature. Please return one (1) copy of this form, and keep the other one (1) copy for your records.

浙江美芝压缩机有限公司

承认/Approved	担当/Drafted

适用范围(Application)

压缩机型号 Model Name	**DSG320S1UFT**
压缩机类型 Compressor Type	全封闭型电动压缩机 Hermetic Motor Compressor
空调器类型 A/C Type	单冷型空调器 Cooling Only A/C System
冷媒类型 Refrigerant Type	R290
最大冷媒充注量 Maximal Refrigerant Charged	**0.42** Kg Max
电机类型 Motor Type	单相诱导电机·运转电容型 Single Phase Induction Motor· PSC
电源类型 Power Source	单相 Single Phase 1Φ-50Hz-230V
安全认证 Safety Approval	TUV：R 50252512

1、 规格参数(Specification)

汽缸容积 Displacement	31.81 cm^3/rev.
冷冻机油充注量 Oil Charged	NM100PM/XS-601C1 · 440 ml
总重量（含冷冻机油） Weight (Oil Included)	18.2 Kg
电机极数 Pole Numbers	2 极/Poles
绕组阻值（20℃时） Coil Resistance(at 20℃)	主绕组 辅绕组 Main:2.22±5%Ω Aux.:1.64±5%Ω
堵转电流 Locked Rotor Amps	（at 1Φ-50Hz-240V） 33.7 A ±10%
运转电容 Ruing Capacitor	55 μF-400V
绝缘等级 Insulation Grade	E 级/Grade
排气管内径 I.D. of Discharge Pipe	9.8 mm
吸气管内径 I.D. of Suction Pipe	12.9 mm

2、 额定性能规格(Rated Performance Parameters)

额定能力 Rated Capacity	4775 ±5% W
额定输入功率 Rated Input Power	1395 ±5% W
额定输入电流 Rated Input Current	6.25 ±5% A
能效比 COP	3.42
噪音/NOISE dB(A) (Sound Power Level)	★ 70 以下 MAX
振动 m/s^2 VIBRATION（切线方向振动实效值）	★ 12 以下 MAX
绝缘阻抗 Insulation Resistance	≥20 MΩ 封入氮气时/Nitrogen Charged
绝缘耐压 Withstanding Voltage	AC1500V-1min
残留水分量 Residual Moisture	冷凝法 ≤250 mg
含尘量 Residual Impurities	≤45 mg
接地阻抗 EARTHING RESISTANCE	以下 0.1 Ω MAX

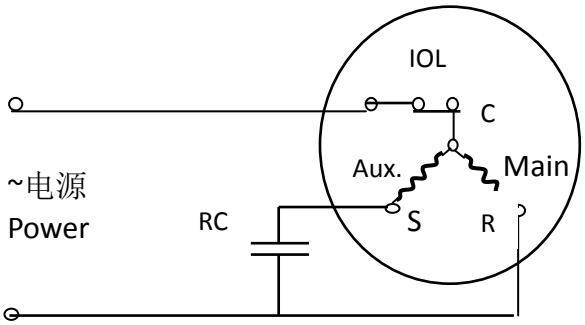
*Remarks：Rated cop is measured by calorimeter methods of CN8-F1-028 made by Guangdong Meizhi Compressor Co.,Ltd. Allowable cop should be more than 97% of the rated cop.

*备注：额定 COP 根据本公司标准 CN8-F1-028 规定的卡路里方法测试，允许 COP 应为额定 COP 的 97%以上。

测定条件（Rating Condition）

电源 Power Source	1Φ-50Hz-220-240V	1Φ-50Hz-220V
冷凝温度 Cond. Temp.	54.4℃	★54.4℃
蒸发温度 Evap. Temp.	7.2℃	★7.2℃
吸气温度 Return Gas Temp.	35℃	★18℃
过冷却温度 Liquid Temp.	46.1℃	
环境温度 Ambient Temp.	35℃	★20℃
排气温 Discharge Tube Temp.	不设定(不吹风)	★80℃

3、 电气配线接线图(Wire Connection Figure)



S：START（辅绕组 Aux Winding）
R：RUN（主绕组 Main Widing）
C：COMMON（共通）
RC： 运转电容 Run Capacitor

4、系统使用条件(Limit of System Application)

NO.	项目 Item	标准（参考） Standard(reference)	极限状况下 Limit Cond.	说明 Note
1	排气压力 Discharge Pressure.	1.78 MPa	2.25 MPa	详细压力使用范围见附纸！ See the attached chart of limitation of operation pressure.
2	吸气压力 Suction Pressure.	0.28～0.54 MPa	0.1～0.63 MPa	
3	压缩比 Compressing Ratio	8 Max	8 Max	
4	电机绕组温度 Motor Coil Temp.	100℃	125℃	
5	排气温度 Discharge Temp.	100℃	115℃	

5、注意事项 Application Notice：

1. 整个运行过程中无液压缩发生。
   No liquid refrigerant go back to compressor during the whole time.
2. 连续运转时（包括除霜、除湿）压缩机底部温度-冷凝器中部温度需大于等于 5℃以上；
   When continuous running (include defrost and dehumidify), compressor bottom temp. subtract condensing temp. should be more than 5℃.
   断续运转时压缩机底部温度-冷凝器中部温度需大于等于 0℃以上。
   When intermittent running, compressor bottom temp. subtract condensing temp. should be more than 0℃.
3. 断续运转，每一周期 5 分钟以上，开 2 分钟以上，停 2 分钟以上。
   When intermittent running, each cycle should be longer than 5 minutes. (On: over 2 min, Off: over 2 min)
4. 运转电压波动允许范围 **230V-15%～230V+15%(195V～264V)**
   The supply voltage should be **230V-15%～230V+15%(195V～264V)**
5. 高压侧和低压侧压力需保持平衡后才能启动。
   Pressure should be balanced between high and low pressure side.
6. 运转过程中不能有异常噪音发生。
   In operation, abnormal noise is not allowed.
7. 最大允许倾斜角度：5° 。
   Tilt angle should be less than 5° .
8. 当压缩机以下状态时，需确认油面水平：
   Oil level confirmation should be tested at:

1)超负荷、低负荷时；

Overload and low load running;

2)冷媒沉积启动时；

Refrigerant soaking starting;

3)除霜开始、恢复时；

Defrost starting and resuming;

4)超过最长配管时；

Connection pipe over 15m;

5)超过最大落差时；

Elevation over 5m;

使用带视窗镜的压缩机进行确认；

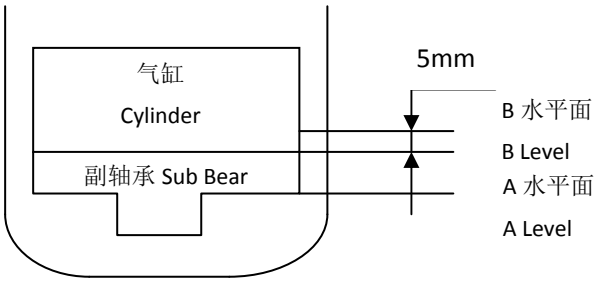
Oil level confirmation test performed with side glass compressor:

1、在稳定运转状态（包括连续/断续运行），油面需在水平面 B 以上；

At steady running (include continuous or intermittent operation): oil level should be higher than B level.

2、在启动的 3 分钟以内，油面需在水平面 A 以上；

Within 3 minutes at starting: oil level should be higher than A level.



其他注意事项 Other Application Notice

1. 不要给吐出管、吸入管施加弯曲的力，强制其弯曲。
   而且，对于始动、运转停止以及运输搬运等时所受冲击，配管设计时，各管许容应力如下：始动、停止时=30N/mm2 以下，运转时=20N/mm2 以下。
   Don't provide any force on discharge & suction pipes. The piping stress should be less than 30N/mm2 at starting & stopping, and less than 20N/mm2 at running when designing the piping.
2. 压缩机不允许横置、倒置，在搬运时不允许跌落。
   Do not put a compressor on its side or turn it over. And do not fall it off when moving.
3. 绝对不允许空气中运转。
   COMPRESSING AIR IS NOT PERMITTED.
4. 压缩机密封塞拔除后，请尽快使用，不要将压缩机长时间放置。
   Please assemble the compressor in your Air Conditioner rapidly after removing the plugs. Don't place the compressor in air for a long time.
5. 电气品要使用弊社所指定的规格同等品。
   Please use the accessories indicated by Our Company.
6. 冷媒量超过规定量时，需另行协商决定压缩机规格。（此时要考虑增加储液器、油加热器）
   When the amount of refrigerant charged in the Air Conditioner is over the max amount allowable, compressor specification should be discussed. (Install additional accumulator, oil heater, etc.)
7. 冷媒填充原则上从高压侧开始实行。

Refrigerant must always be filled from the higher side of the refrigeration cycle.

8. 避免因误配线发生逆转。(若发生逆转，则压缩机不能再使用)
   Avoiding compressor running in reverse caused by connecting electrical wire incorrectly. (Don't reuse the compressor after running in reverse.)
9. 压缩机不得露天存放或存放在腐蚀性空气中如化学仓库等。
   The compressor should be kept out of storing in open storage or corrosive atmosphere such as in a chemicals storage and so on.
10. 压缩机壳体表面不容许配线或类似物接触压缩机表面。
    Do not allow electric cables or the like to touch compressor directly.
11. 必须有适当的防湿、防尘处理以防止水滴，灰尘进入压缩机
    To avoid water droplets and dust into the compressor , moisture-proof or dust-proof measures must be take.
12. 分体式空调最长配管不超过 15m，配管的高低落差最大 5m。
    For split type Air Conditioner, the maximum piping length should be 15m, and elevation difference should be within 5m.
13. 禁止使用 R290 之外的冷媒。
    Do not fill refrigeration cycles with other refrigerant except R290.
14. 请不要裸手触摸运行中或刚停机正处于高温的压缩机，当心烫伤。
    Do not touch the compressor with bare hands during operation or immediately after stoppage. The compressor is at a high temperature. There is the danger of burns.
15. 维修保养设备时必须配戴防护眼镜。由于焊枪温度过高，拆卸配管时，当心会有冷媒、油的溅出而导致烫伤或进入眼中。
    Wear safety goggles when servicing the unit. When removing the tubes by heating it with a burner, there is the danger of burns or eye injury if the refrigerant and/or oil remaining in the tubes is emitted.
16. 注意：R290 是可燃性冷媒！压缩机自身不含 R290 冷媒，但含 R290 空调系统在运输、安装、使用、维修等过程都必须满足当地法规的相关要求。
    Attention: R290 is a kind of flammable refrigerant! Compressor itself don't contain R290 refrigerant, but the whole process of transportation、assembling、using、servicing the R290 refrigerant Air Conditioner should meet local policy and regulation.
17. 压缩机排气管焊接时，注意保护接线端子，焊接时压缩机端子自带保护盖严禁取下。
    Welding discharge pipe, be careful to protect terminal connector. Do not remove the original terminal cover.
18. 压缩机接线前，应确定接线端子处无异物附着，为确保接线线序正确，端子接触部位无接触不良等，建议采用一体式插头或当地法规特殊规定的接线方式。
    Before wiring, clean the terminal connector, and using recommend connection mode , integrated plug or local regulations and special provisions.
19. 搭载在空调器上的压缩机在维护、维修、更换及多次安装过程中，可能会有少许冷媒溢出，请注意远离明火，并遵循当地法规的相关要求。
    R290 A/C may have a little refrigerant leakage on installing or repairing, please keep the system away from the fire and obey the rule from the government.
20. 外部虫鼠啃咬、雷击及电压突变等对空调器中压缩机的接线部件会造成损坏，有引起短路、明火、泄漏等隐患，对于 R290 冷媒压缩机来说危害较大，因此在压缩机的使用中请注意对相关危害采取可靠性措施。
    The bite of worm, thunder striking or abrupt change of voltage may damage the wire connect terminal of the compressor, it may result in short circuit, fire or leakage, etc. It's

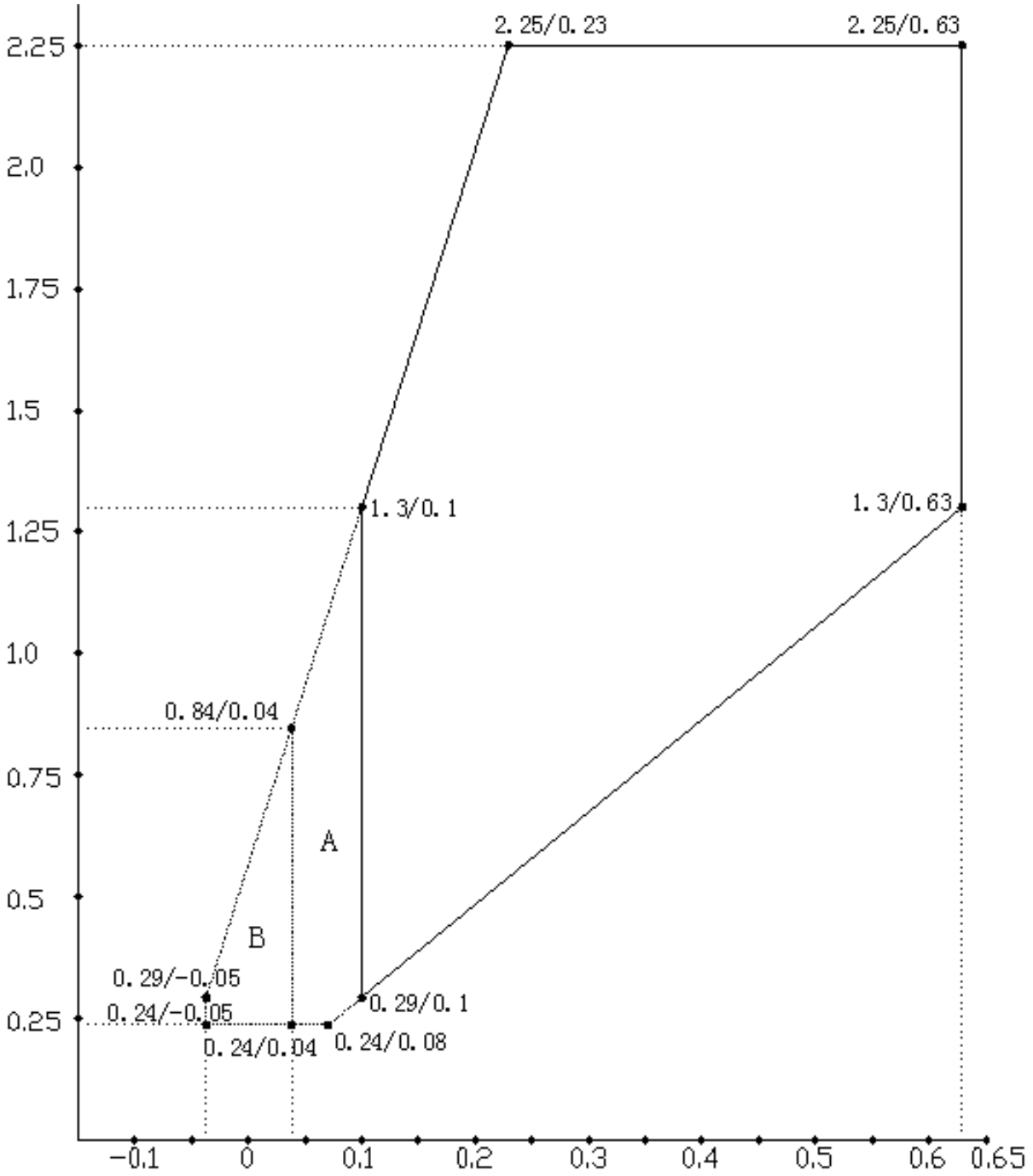
harmful to R290 refrigerant, so please adopt some reliability method to prevent this situation.

压缩机压力使用范围

LIMITATION OF OPREATION PRESSURE

单位:MPa(表压)

Unit: MPa (G)



注意（attention）:

A/B 区域，单冷机不适用；

For cooling only A/C, region A&B cannot be used。

图纸/附件清单 Drawing/Accessories List

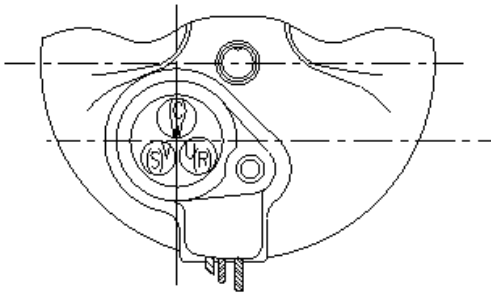
(See the Attached Pages)

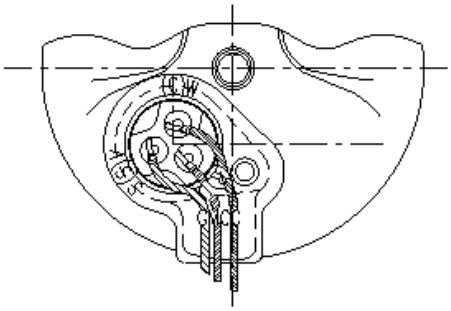
名　称 (Parts Name)	数量 (Pieces)	图 号 (Drawing No.)	备注
电装品 ELE. COMPONENTS	1	**MC35720410**	
端子盖 TERMINAL COVER	1	**MC33721410**	
端子垫片 TERMINAL PACKING	1	**MC33721710**	
端子螺母 TERMINAL NUT	1	**MC33300810**	
橡胶垫 RUBBER CUSHION	3	**MC61910310**	
压缩机外形图 COMPRESSOR DRAWING	1	**MC618801Gr**	

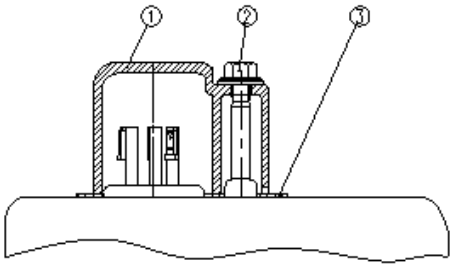
电装品 (ELE. COMPONENTS)

ELE COMPONENTS

Drawing No.MC35720410







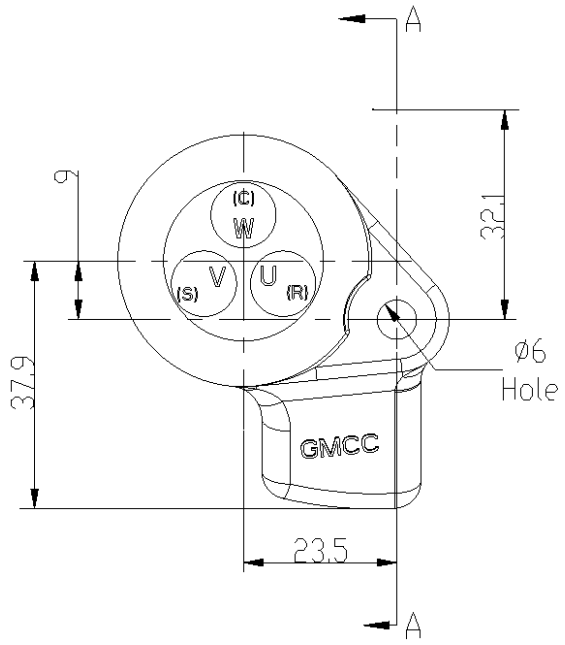
Parts	T I T L E	Drawing No.
①	TERMINAL COVER	MC33721410
②	TERMINAL NUT	MC33300810
③	TERMINAL PACKING	MC33721710

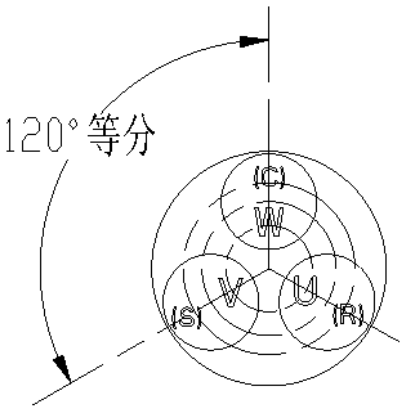
NOTES
Tightening totque of TERMINAL NUT :1.2±0.2 N・m

端子盖（TERMINAL COVER）

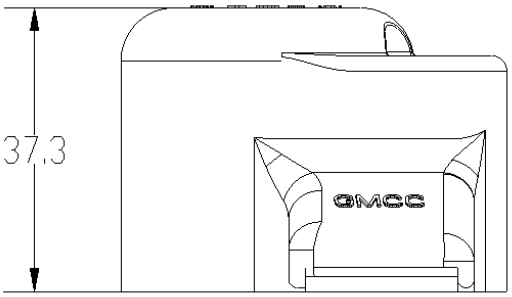
TERMINAL COVER

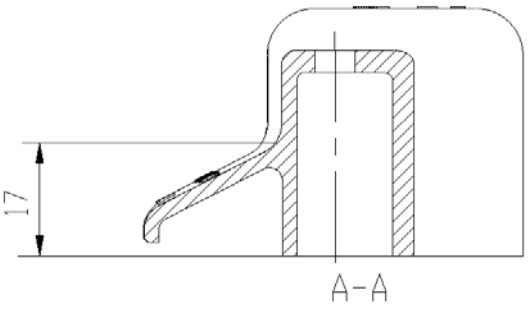
Drawing No.MC33721410





Z面刻印记号





NOTES

MATERIAL:POLYBUTYLENE TEREPHTHALATE or BULK MOLDING COMPOUND

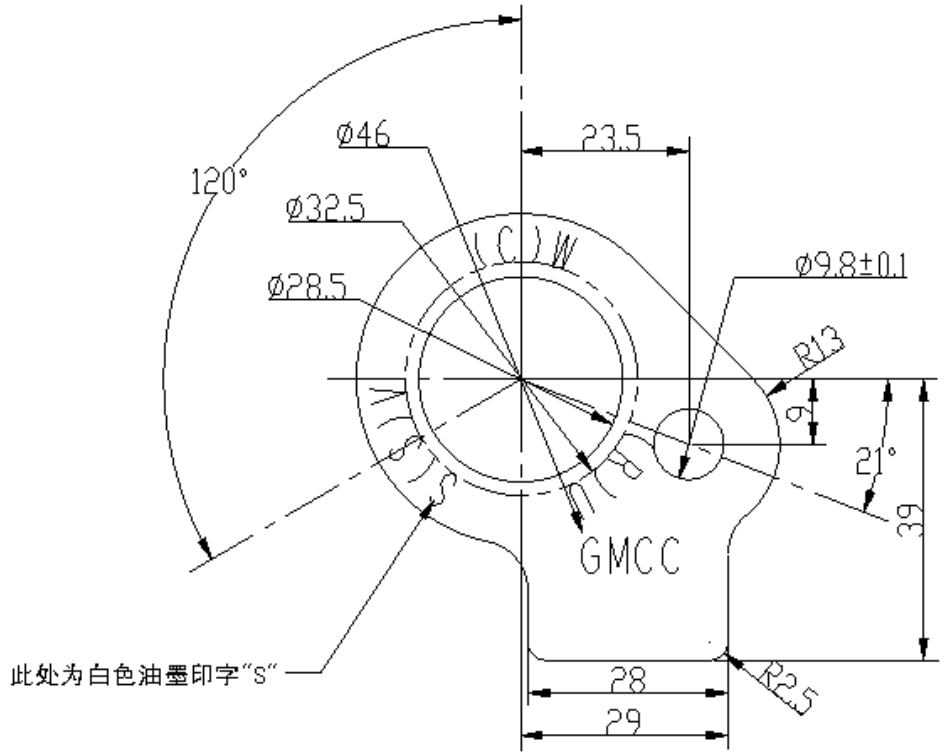
COLOR:BLACK

端子垫片（TERMINAL PACKING）

TERMINAL PACKING

Drawing No.MC33721710

THICKNESS 1.2mm

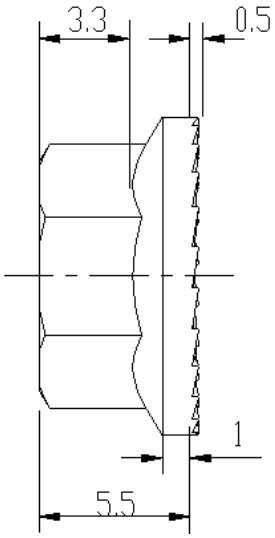


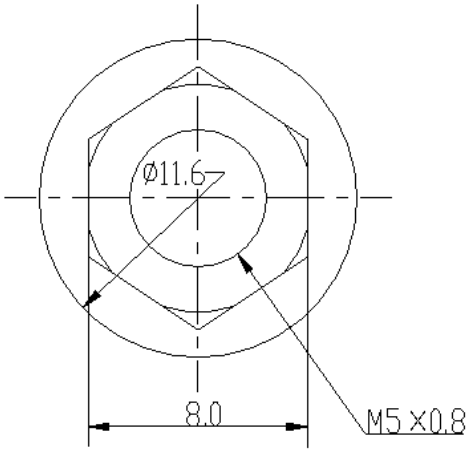
NOTES
MATERIAL:SI
COLOR:BLACK

端子螺母（TERMINAL NUT）

TERMINAL NUT

Drawing No.MC33300810



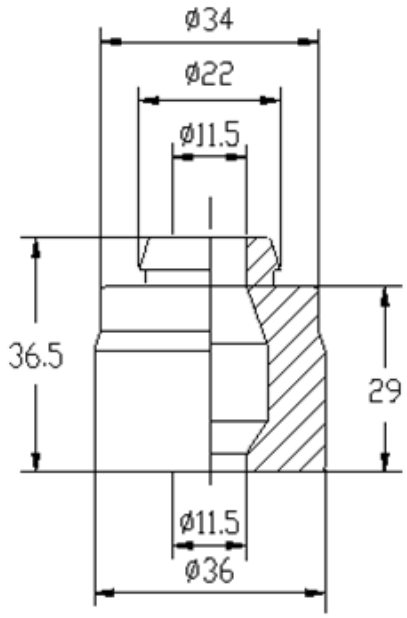


NOTES
MATERIAL:SWCH12A
TREATMENT: WITHOUT HEXAVALENT CHROMIUM COMPOUNDS(Ep-Fe/Zn 2-CM 2镀锌处理）

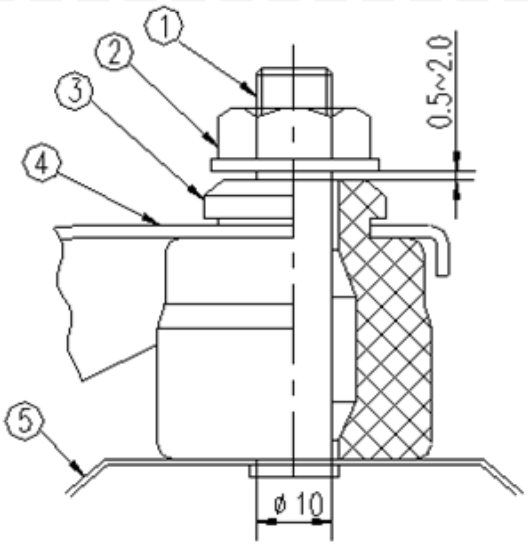
橡胶垫(RUBBER CUSHION)

RUBBER CUSHION

Drawing:MC61910310



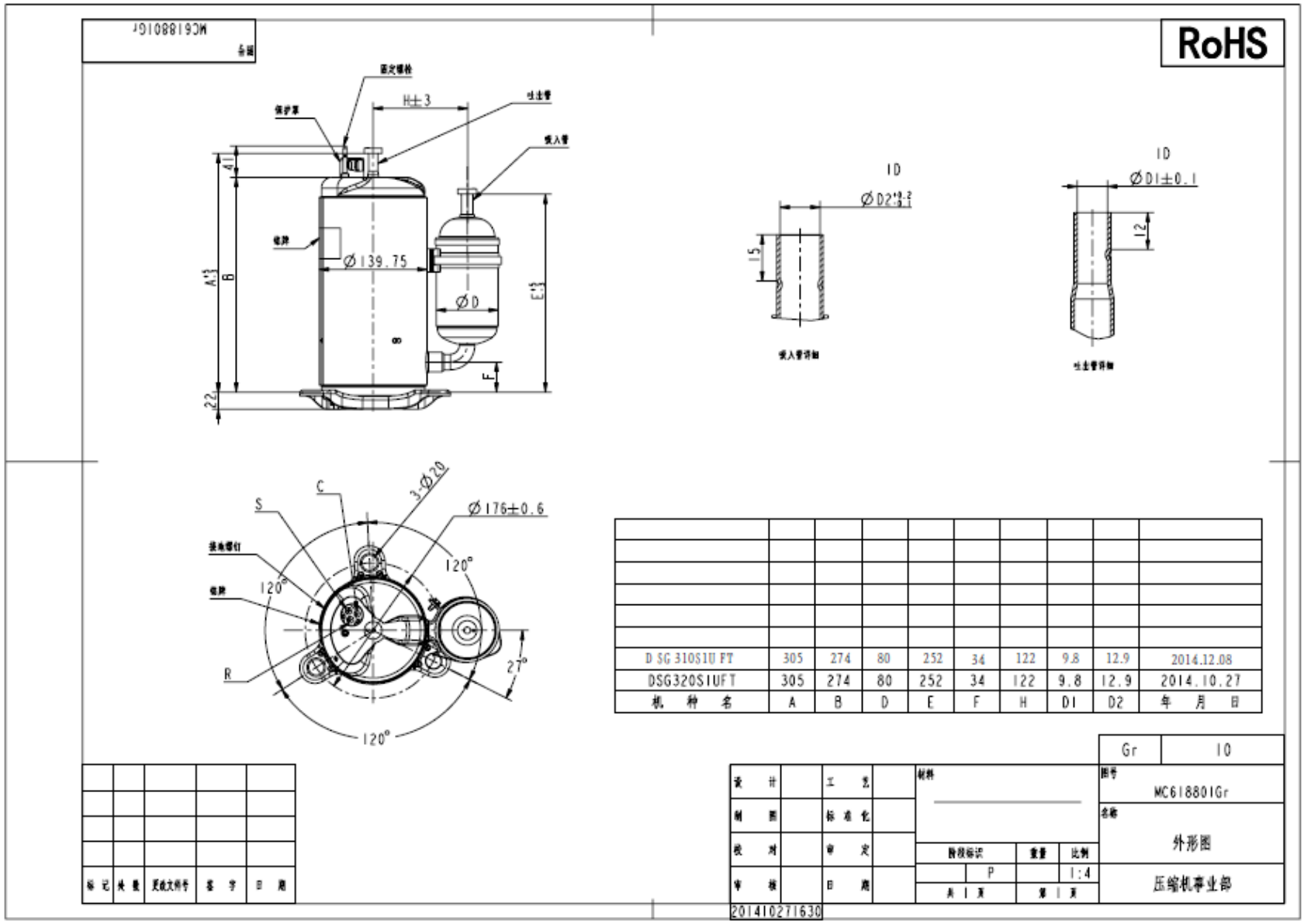
NOTES
MATERIAL:EPDM
HARDNESS:HS=43±5



①	STUD BOLT
②	NUT
③	RUBBER CUSHION
④	COMPRESSOR BASE
⑤	BASE PLATE

MOUNTING ASSEMBLY

外形图 (COMPRESSOR DRAWING)



DSG310S1UFT	305	274	80	252	34	122	9.8	12.9	2014.12.08
DSG320S1UFT	305	274	80	252	34	122	9.8	12.9	2014.10.27
机种名	A	B	D	E	F	H	D1	D2	年月日

标记	处数	更改文件号	签字	日期

设计		工艺	
制图		标准化	
校对		审定	
审核		日期	

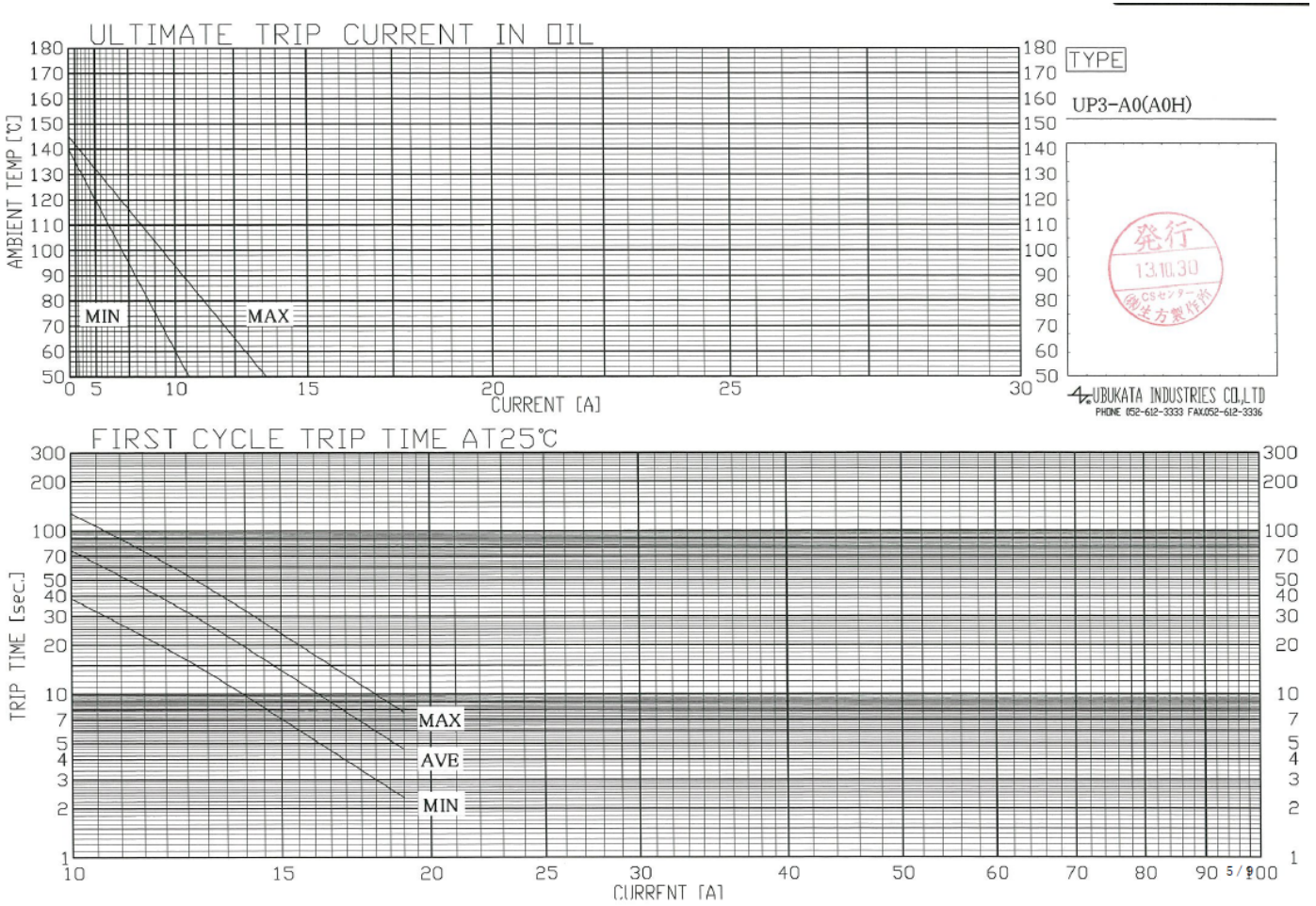
20141027163O

材料

阶段标识	重量	比例
P		1:4
共 1 页	第 1 页	

Gr	10
图号	MC618801Gr
名称	外形图
	压缩机事业部

厂家	型名	温度特性		认证号
		断开温度（℃）	复位温度(℃)	
生方	UP3-A0H	140~145℃	90±10	136742



压缩机可靠性报告

产品：DSG320S1UFT

GMCC 压缩机可靠性试验评价

1、 GMCC T1 工况压缩机单体耐久评价项目：

试验项目 \ 设定条件			试验条件	
			运转模式 ON/OFF	试验时间 H/CY
保证试验	系列 A	MAX 压力连续	ON	100H
		高负荷连续	ON	150H
		高压缩比连续	ON	100H
		高流量断续	3/2M	150H
	系列 B	MAX 压力连续	ON	连续(250H)
		MAX 压力断续	3/2M	断续(250H)

2、该系列 MAX 机种 DSG440V1UFT 耐久完了确认结果：

设定条件 \ 试验项目		试验条件	
		运转模式 ON/OFF	运行时间
系列 A	MAX 压力连续	ON	6000H
	高负荷连续	ON	
	高压缩比连续	ON	
	高流量断续	3/2M	
系列 B	MAX 压力连续	ON	6000H
	MAX 压力断续	3/2M	

3、本系列代表机种耐久最终确认结果：

耐久品磨耗正常，性能良好，合格！

4、本系列代表机种耐久合格，代表机种耐久结果适用于同系列其他机种。