

SPEC NO. : QAHGC007

DATE : MAR.25.2011

青岛东元机电

2011.03.25

文管中心

FOR APPROVAL

SPECIFICATION OF HERMETIC COMPRESSOR

MODEL NO. K1-C176GEBC-A

Attached Accessories

1.Refrigerant Oil

Charged

2.Electrical Components

Motor protector

1 pce/set

Terminal cover

1 pce/set

Packing

1 pce/set

Packing

1 pce/set

Holder

1 pce/set

Flange nut

1 pce/set

3.Mounting components

Rubber mount

3 pcs/set

CUSTOMER
APPROVAL _____

THE SPECIFICATION FOR K1-C176GEB-C-A COMPRESSOR



General specification

TCSM 002

1.Application

Evaporating temp. range

-10~+15°C

Refrigerant

R22 (CHClF₂), 0.95Kg max

2.Compressor data

Outline dwg.

DA100D078

Design

Rolling piston type rotary

Displacement

17.6 cc/rev.

Number of cylinder

1

Oil charge

4GSD 380 cc

Weight

11.3 kgs.

3.Performance

Performance curve

TCC158

Refrigerating capacity

3500/3550 W ± 5%

Current

5.98/5.61 A ± 5%

Motor input

1235/1252 W ± 5%

Notes:Conditions

Evaporating temp.

7.2 °C (45 °F)

Condensing temp.

54.4°C (130 °F)

Return gas temp.

35.0°C (95 °F)

Ambient temp.

35.0°C (95 °F)

Liquid temp.

46.1°C (115 °F)

4.Motor data

Wiring diagram

DA200D002

Motor type

Permanent split capacitor

Output

1000 W

Rated voltage

208V / 230V

Rated frequency

60 Hz

Phase

Single

Locked rotor current

28A ±5% at 230V

Motor resistance (at 20°C)

Main winding 2.48 Ω ± 5%

Aux. winding 3.97 Ω ± 5%

Insulation class

E

5.Electrical components

Motor protector

MRA12089-12007 DA205D040(01)

※Running capacitor

25μF 400 VAC

6.Terminal parts accessories

Terminal part assy

DA400D041

Terminal cover

1 pce.

DA405Q001

Protector holder

1 pce.

DA406D035

Packing

1 pce.

DA408D043

Packing

1 pce.

DA408D031

Flange nut

1 pce.

DA904D025

7.Mounting accessories

Compr. mounting

DA300D014

Rubber mount

3 pcs.

DA306D013

8.Optional parts

Nameplate

1 pce.

DA912D045

※The product recognized by International Safety-standard is recommended.

TCSC132

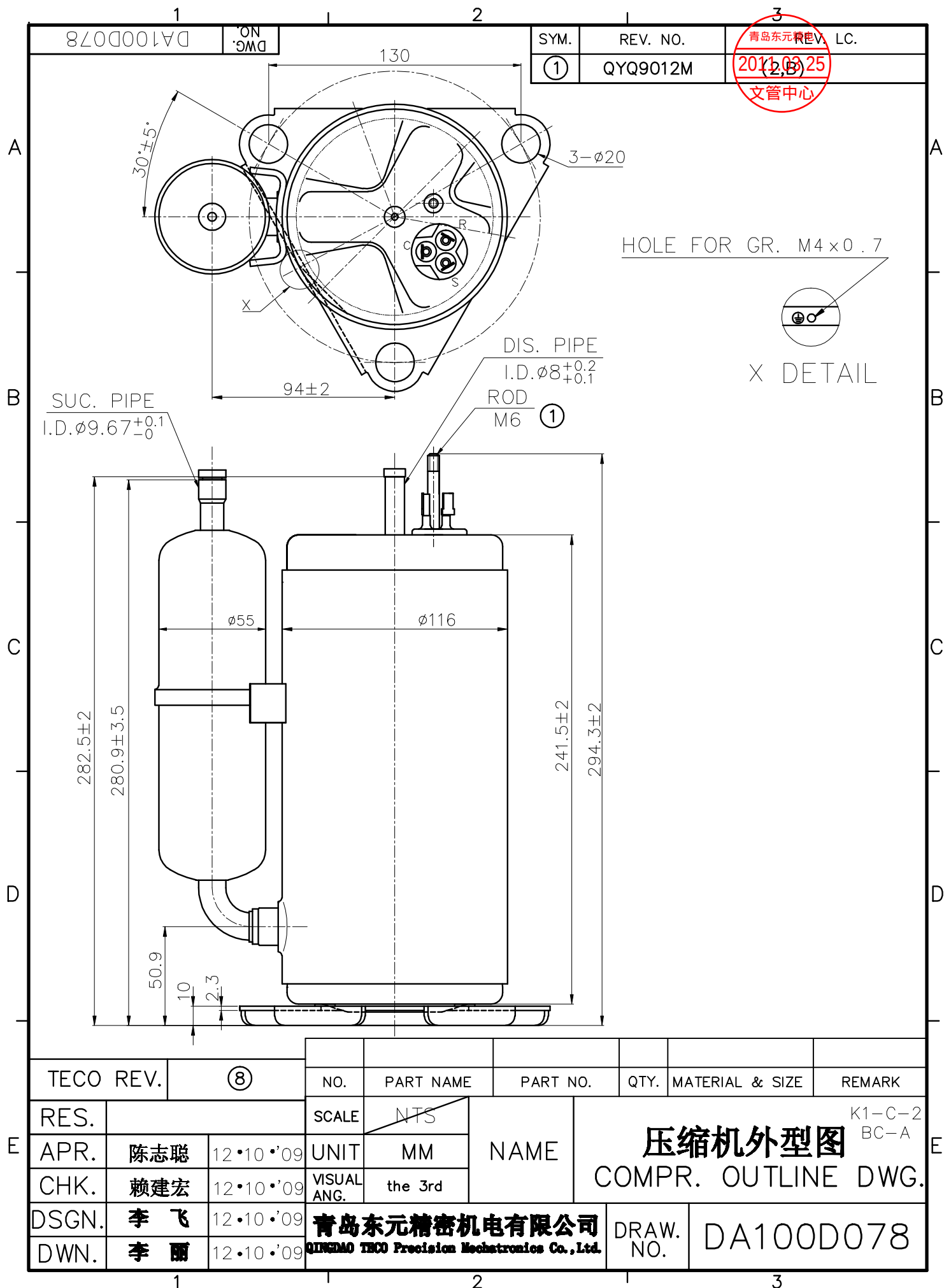
Rev.03

K1、K2系列压缩机使用基准与界限



K1, K2 series rotary compressor application limitations

No.	项目 Item	标准条件 Standard condition	过载条件 Overload Condition	备注 Remarks
1	使用冷媒 Refrigerant	R22(使用冷媒质量, 适用JIS K1519规范)		
2	蒸发温度范围 Evaporating	-10~+15℃ (2.61~7.05kg/cm ² G)	-20℃以上 (1.5kg/cm ² G MIN)	
3	凝缩温度范围 Condensing	+28~+65℃ (10.5~26.51kg/cm ² G)	+68℃以下 (28kg/cm ² G MAX)	压缩机设计压力30kg/cm ² G The design pressure for our compressor is 30kg/cm ² G
4	压缩比 Compressing ratio	6以下 6MAX	8以下 8MAX	
5	马达线圈温度 Motor coil temperature	100℃以下 100℃MAX	125℃以下 125℃MAX	
6	压缩机底壳温度 Comp.bottom temp.	100℃以下 100℃MAX		
7	排出气体温度 Dis.gas temp.	100℃以下 100℃MAX	115℃以下 115℃MAX	排放管量测 measured at dis. pipe
8	吸入气体温度 Suc.gas temp.	吸入气体过热度+2℃以上 Superheat must be over +2℃	不可发生吸入液体之回流 No liquid-back	
9	供应电压 Voltage range	额定电压±10%以内 Rated voltage ±10%		压缩机端子电压 measured at comp. terminal
10	供应频率 Frequency range	额定频率±2%以内 Rated frequency ±2%		
11	ON-OFF频率 ON-OFF Cycle	每循环3分钟以上运转, 3分钟以上停止 3 min-ON, 3 min-OFF/cycle at least.		
12	冷媒充填 Refrigerant charging	冷冻油/冷媒之重量比, 需保持在0.4以上。 液态充填冷媒, 当系统有泄漏时, 需完全排放后重新充填。 The weight ratio of oil to refrigerant must be over 0.4. The refrigerant must be charged in liquid state.No additional charge before total discharge while system leaks.		冷冻油密度: 0.877g/cm ³ The density of the oil charged is 0.877g/cm ³ .
13	最低起动电压 Minimum starting voltage	1. 0.8E, 额定电压0.8倍. Rated voltage*0.8. 2. 环境温度20~35℃. Ambient temp. 20~35℃. 3. 高/低压力平衡. Balanced pressure.		
14	压缩机内油面 Oil level	稳定运转时, 油面需高于汽缸下缘5mm. At steady state, oil level must be 5mm above the bottom of cylinder.		
15	异常压力上升Abnormal pressure raising	40 Kg/mm ² G以下 40 Kg/mm ² G MAX		冷却风扇停止时 Fan-block condition
16	配管应力(铜管) Allowable stress of tube (Copper tube)	起动、停止及运输时: 3.0 Kg/mm ² G以下 starting, stopping and transportation: 3.0 Kgf/mm ² G MAX.		
		运转时: 2.0 Kg/mm ² G以下 operating: 2.0 Kgf/mm ² G MAX.		
17	水分 Residual moisture	系统中的水分需在100mg以下 100 mg MAX.		
18	真空度 Vacuum Pressure	系统真空度需在0.35mmHg以下 The vacuum pressure in system must be less than 0.35mmHg.		
19	倾斜 Tilt in operating	安装于系统时, 压缩机的倾斜度需在5° 以内 The compressor incline angle must be less than 5° .		
20	橡皮塞拔除 Rubber remove	橡皮塞需从排放管侧先拔除, 橡皮塞拔除后压缩机需于10分钟内安装于系统 The compressor should be installed in 10 minutes after rubber removed.		避免冷冻油喷出以及水分、杂质入侵 Avoid the oil loss and foreign body in.
21	储存 Storage	压缩机需储存于室内, 避免日晒雨淋, 环境温度-10~+65℃ The compressor should be indoor storage and the ambient temperature is between -10 to +65℃ to avoid poor climate.		

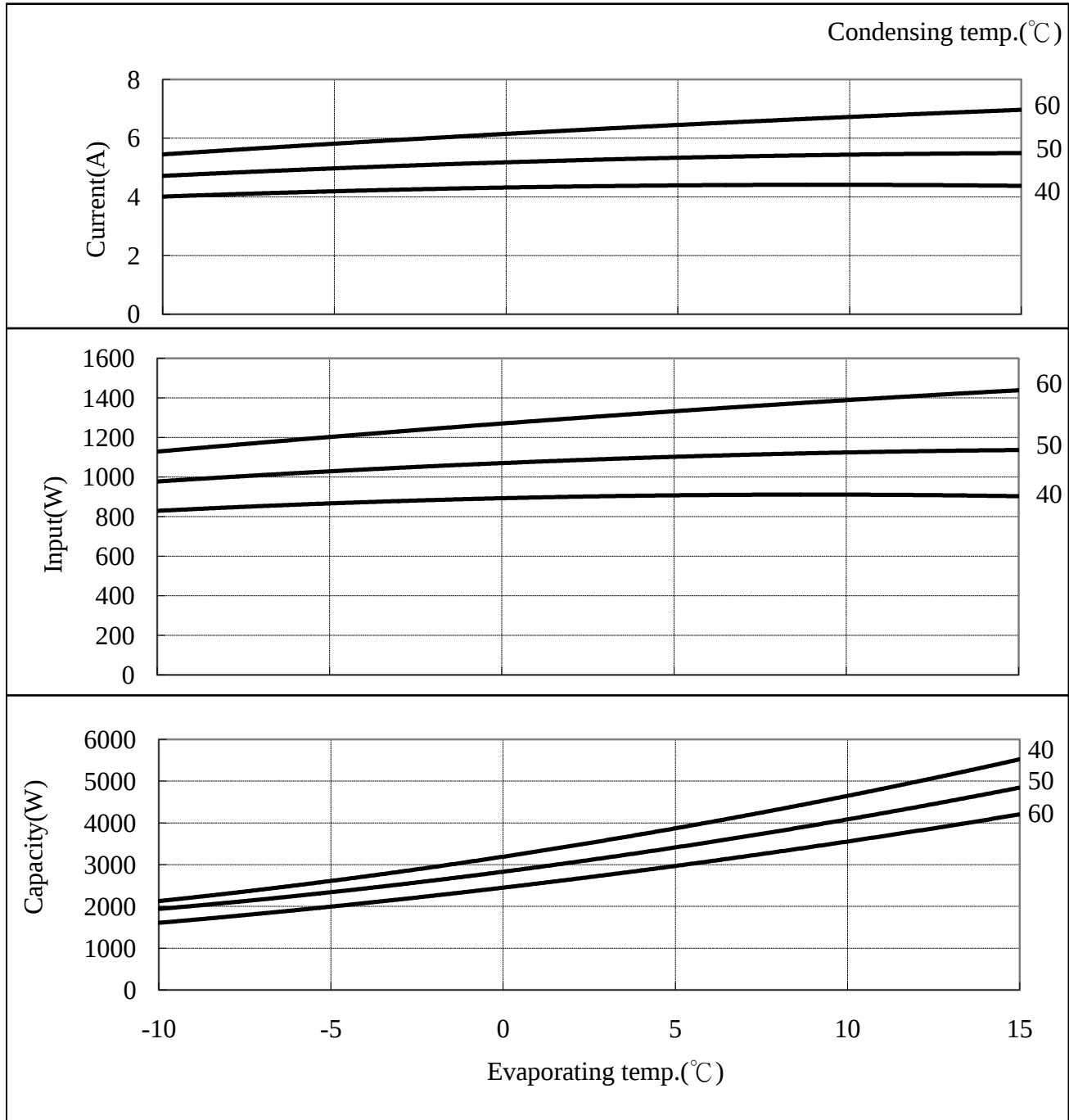


K1-C176GE Performance Curve

Rating condition : 11 deg. return gas superheated
8.3 deg. liquid subcooled
35 deg. ambient ; forced air flow

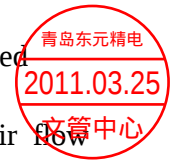


1 ϕ 208V 60Hz

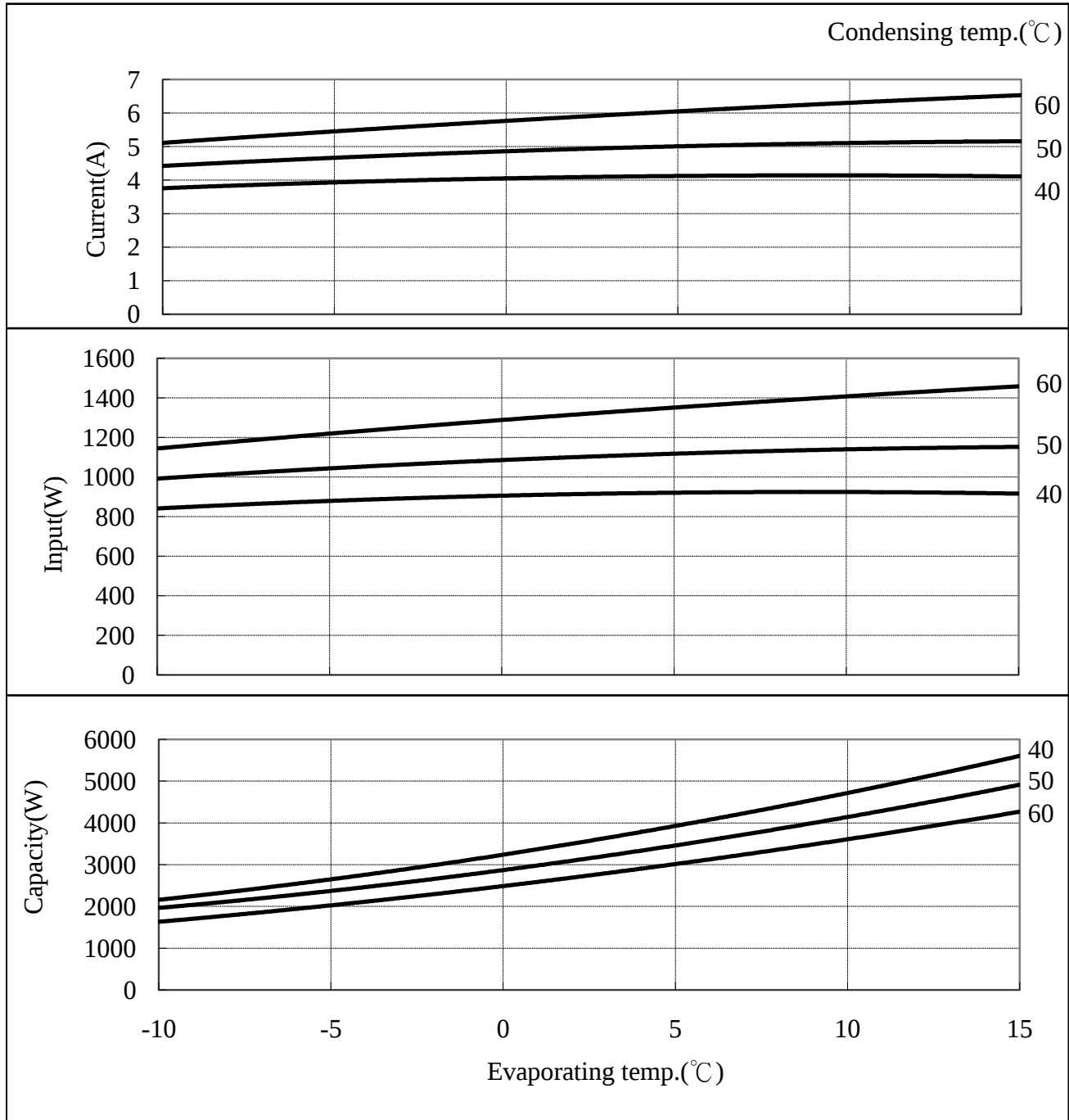


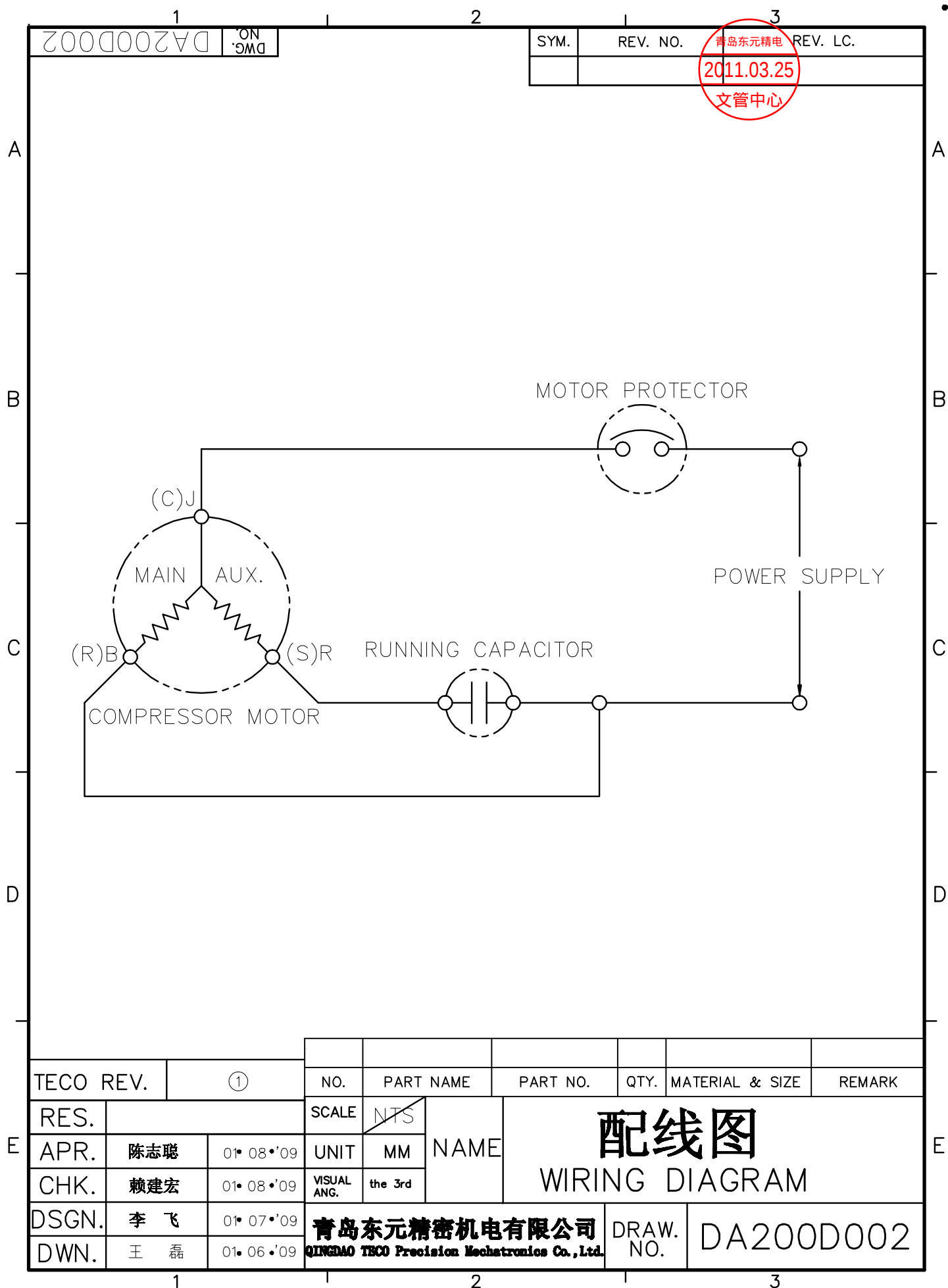
K1-C176GE Performance Curve

Rating condition : 11 deg. return gas superheated
 8.3 deg. liquid subcooled
 35 deg. ambient ; forced air flow



1 ϕ 230V 60Hz





1	2	3
DA205D040	ON GMD	REV. NO.
		2011.03.25

青島元精電

2011.03.25

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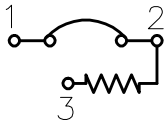
ITEM	TYPE	OVERL TRIP CURRENT (@100℃) A	LOCKED TRIP CURRENT(@25℃) A	sec	OPEN TEMP. ℃	CLOSE TEMP. ℃	REMARK
0106	MRA12089-12007	9.8	22.5	2~12	150±7	70±11	

注：1．电木底盖需盖紧，以不影响动作特性及外观尺寸，其形状不予限制。

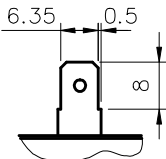
1.THE O.L.P. BOTTOM COVER SHOULD BE TIGHTLY FASTENED AND SHOULD NOT AFFECT ITS PERFORMANCE CHARACTERISTICS AND OUTLIN SPECIFICATIONS,BUT THE SHAPE IS NOT RESTRICTED.



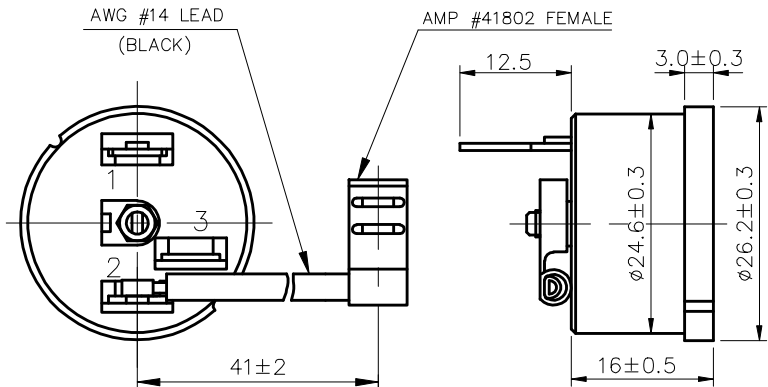
CIRCUIT(12007)



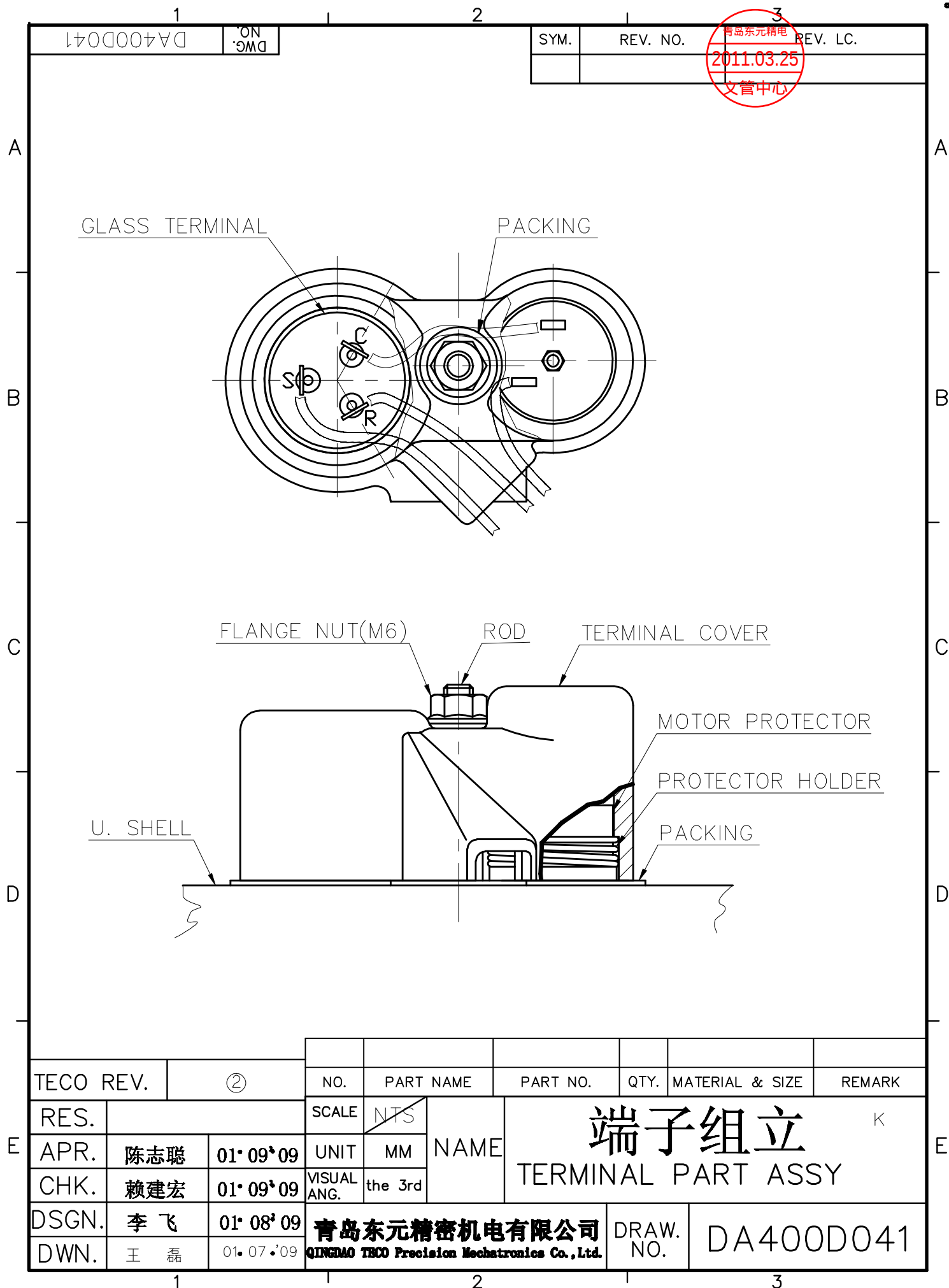
CIRCUIT(12008)



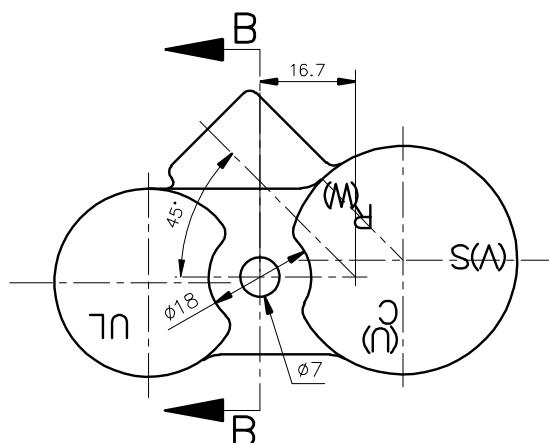
TERMINAL
(AMP #250 SERIES)



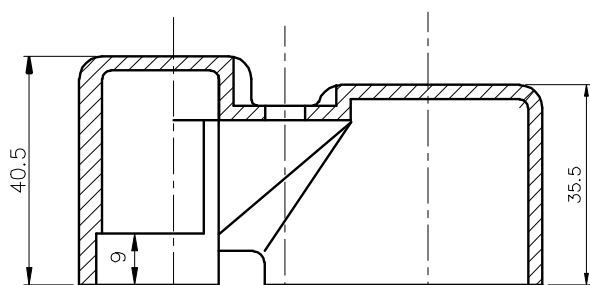
TECO REV.		④	NO.	PART NAME	PART NO.	QTY.	MATERIAL & SIZE	REMARK
RES.	35012H007		SCALE	NTS	NAME	马达保护器 MOTOR PROTECTOR		
APR.	陈志聪	0222'09	UNIT	MM				
CHK.	赖建宏	0222'09	VISUAL ANG.	the 3rd				
DSGN.	李 飞	0221'09	青岛东元精密机电有限公司			DRAW. NO.	DA205D040	
DWN.	陈志刚	0220'09	QINGDAO TECO Precision Mechatronics Co.,Ltd.					



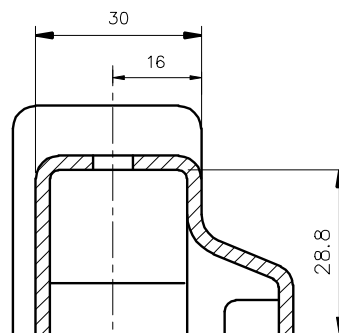
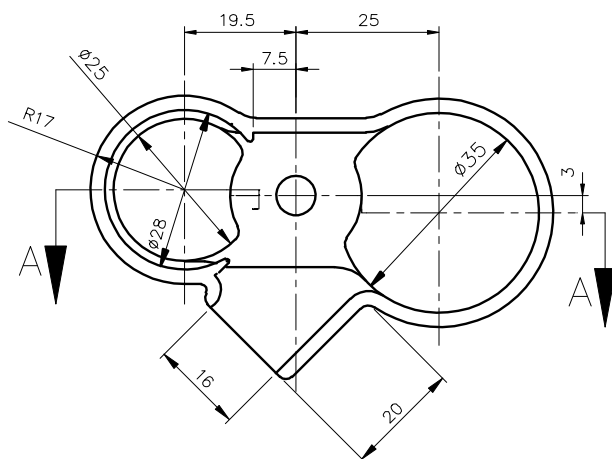
REV. LC.
2011.03.25
文管中心



1. COLOR: BLACK
2. THE MATERIAL MUST BE HARD TO IGNITE (130~140℃),
HEAT PROOF: NO LESS THAN 120℃.
3. INSULATION RESISTANCE:
30MΩ OR MORE AT D.C. 500V
4. VOLTAGE DURABILITY TEST:
AT LEAST 1800V-SEC,
OR 1500V-MIN.

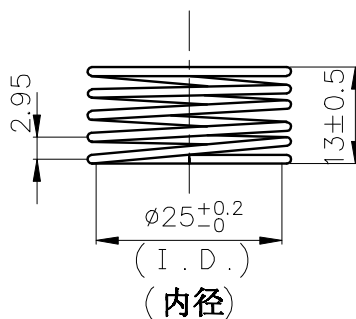


SECTION AA



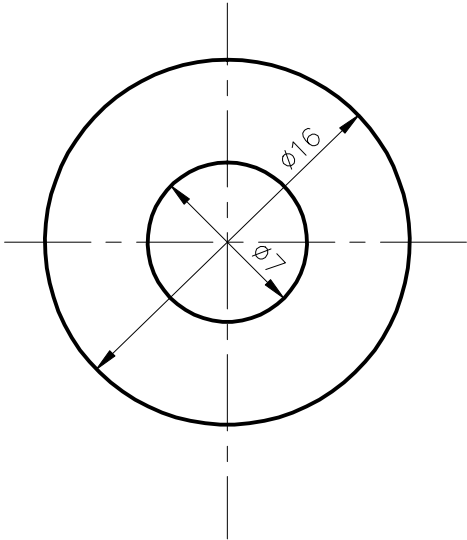
SECTION BB

TECO REV.			NO.		PART NAME		PART NO.		QTY.		PC500		t3.0	
RES. 35015Q001			SCALE		NTS		NAME		端子盖 TERMINAL COVER K (UL)					
APR. 陈志聪 04·29'10			UNIT		MM									
CHK.			VISUAL ANG.		the 3rd									
DSGN. 李 飞 04·28'10			青岛东元精密机电有限公司					DRAW. NO.		DA405Q001				
DWN. 李 丽 04·27'10			QINGDAO TECO Precision Mechatronics Co.,Ltd.											

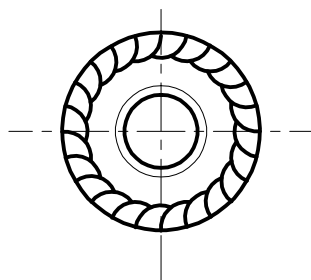


保护器固定座
PROTEC HOLDER

1		2		3	
DWG. NO. DA408D043		SYM.		REV. NO. 2011.03.25 文管中心	
		REV. LC.			
注：1. 颜色：黑色。 2. 难燃性材质(145-160° C). 3. 绝缘测试： 以D. C. 500V绝缘抵抗须在30MΩ以上。 4. 耐压测试： 1200V-min, 1800C-sec合格。 5. 硬度：Hs70±5. 1. COLOR: BLACK 2. THE MATERIAL MUST BE HARD TO IGNITE (145~160℃). 3. INSULATION RESISTANCE: 30MΩ OR MORE AT D.C. 500V 4. VOLTAGE DURABILITY TEST: AT LEAST 1800V-SEC, OR 1200V-MIN. 5. HARDNESS HS: 70±5. Technical drawing of a mechanical part. Dimensions: 28, 29, 28, 19.5, 25, 25, 16.5, 28, 11, 30, 46. Labels: (W)R, S(V), C(U), φ28, φ38, φ11, φ30, φ46.					
TECO REV. ③		NO.		EPT T1.5	
RES. 35023D553		PART NAME		REMARK	
APR. 陈志聪 01·09·09		PART NO.		QTY.	
CHK. 赖建宏 01·09·09		MATERIAL & SIZE		K	
DSGN. 李 飞 01·08·09		NAME		PACKING	
DWN. 王 磊 01·07·09		DRAW. NO.		DA408D043	

1		2		3	
DA408D031		DWG. NO.		SYM.	
				REV. NO.	
				REV. LC.	
				2011.03.25	
				文管中心	
A					
注: 1. 材质为耐燃性 (145~160° C).					
1. THE MATERIAL MUST BE					
HARD TO IGNITE (145~160°C).					
B					
C					
					
D					
E					
TECO REV.		②		EPT T1.5	
RES. 35023D254		NO.		PART NAME	
APR. 陈志聪		UNIT		PART NO.	
CHK. 赖建宏		VISUAL ANG.		QTY.	
DSGN. 李飞		SCALE		MATERIAL & SIZE	
DWN. 王磊		NTS		REMARK	
		MM		the 3rd	
		NAME		衬 垫	
		PACKING			
		青岛东元精密机电有限公司		DRAW. NO.	
		QINGDAO TECO Precision Mechatronics Co., Ltd.		DA408D031	
1		2		3	

1.SURFACE WITH NICKELIZING (Cr^{+3}) TREATMENT.



TECO REV.			③		NO.	PART NAME	PART NO.	QTY.	MATERIAL & SIZE	REMARK
RES.					SCALE	MM	NAME	凸缘螺帽 FLANGE NUT		
APR.	陈志聪	01·09'09		UNIT						
CHK.	赖建宏	01·09'09		VISUAL ANG.	the 3rd					
DSGN.	李 飞	01·08'09		青岛东元精密机电有限公司				DRAW. NO.	DA904D025	
DWN.	王磊	01·07·'09		QINGDAO TECO Precision Mechatronics Co.,Ltd.						

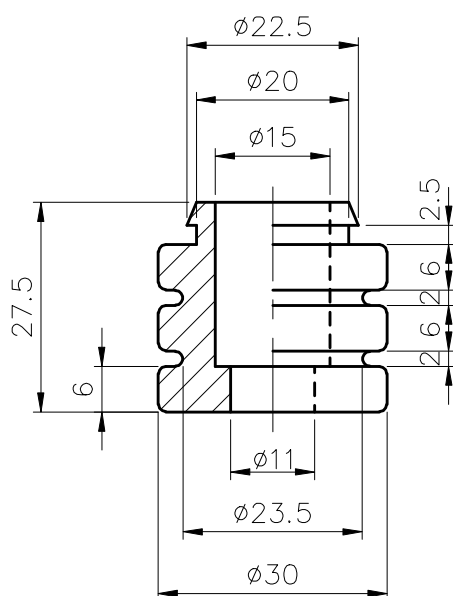
凸缘螺帽

FLANGE NUT

1			2			3						
DA300D014			DWG. NO.			SYM.		REV. NO.		REV. LC.		
								2011.03.25		文管中心		
A B C D E 0.5~2.0 27.5±0.3 NUT SPECIAL FOOT SHELL (COMPRESSOR) BURRER MOUNT BASE UNIT STAD BOLT												
TECO REV.			①			NO.		PART NAME		PART NO.		
RES.			SCALE			1		NAME		压缩机固定衬垫		
APR.			陈志聪			01·09·09			UNIT		MM	
CHK.			赖建宏			01·09·09			VISUAL ANG.		the 3rd	
DSGN.			李飞			01·08·09			青岛东元精密机电有限公司		DRAW. NO.	
DWN.			王磊			01·07·09			QINGDAO TECO Precision Mechatronics Co.,Ltd.		DA300D014	
1			1			2			3			

1		2		3	
DWG. NO.		SYM.		REV. NO.	REV. LC.
DA306D013				青島東元精申	
				2011.03.25	

注：1.难燃性材质，颜色为黑色，硬度Hs38.



1		2		3											
S+0DZ16VD		ON GMD		SYM.	REV. NO.	REV. LC.									
注: 1. 颜色采白底黑字.				①	QN9060M	(201A.0325)(2,D)									
2. 此件须耐温125°C以上.				青岛东元机电 文管中心											
3. 制造编号:		1 2 3 4 5 6 7 8 9 ①													
年 (1994→4)															
月 (01, 02, . . . 11, 12)															
流水号															
4. 材质为POLYESTER FILM, 厚为0.05.															
NOTES: 1.WORDS ARE BLACK WITH WHITE BACKGROUND.															
2.HEAT DURABILITY MUST EXCEED 125°C.															
3.SERIAL NO.:															
1 2 3 4 5 6 7 8 9 ①															
YEAR(1994→4)															
MONTH(01,02...11,12)															
CONTINUOUS NO.															
4.MATERIAL:POLYESTER FILM															
THICKNESS:0.05.															
频率 FREQUENCY 66 输入 INPUT 电压 VOLTAGE 交流电符号 AC SOURCE 制冷剂代号 REFRIGERANT 检验合格 INSPECTION O.K. 认证标志 (3C、UL、VPC. . 等) RECOGNIZED MARK 机种型名 NAME 电源相 PHASE 拘束电流 LOCKED CURRENT 制造编号 (注3) SERIAL NO. 机种型名 NAME MADE BY QINGDAO TECO PRECISION MECHATRONICS CO., LTD. 408000001① RoHS OK PH Hz V LRA A W WARNING/DANGER FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS PERSONAL INJURY. 1.FOLLOW THE RECOGNIZED SAFETY PROCEDURES AND WEAR PROTECTIVE GOOGLES WHEN SERVICING THIS COMPRESSOR. 2.THE COMPRESSOR OR SYSTEM MUST BE GROUNDED. 3.DO NOT OPERATE OR PROVIDE ANY ELECTRIC POWER TO THIS UNIT UNLESS THE TERMINAL COVER IS IN PLACE AND SECURED. 4.DO NOT REMOVE THE TERMINAL COVER UNTIL ALL ELECTRICAL SOURCES HAVE BEEN DISCONNECTED. THERMALLY PROTECTED 96															
TECO REV.		①		NO.		PART NAME		PART NO.		QTY.		MATERIAL & SIZE		REMARK	
RES.		35970H003		SCALE		NTS		NAME		铭 牌 NAMEPLATE					
APR.		陈志聪		06·19'09		UNIT		MM							
CHK.				· ·		VISUAL ANG.		the 3rd							
DSGN.		李 飞		06·18'09		青 岛 东 元 精 密 机 电 有 限 公 司		DRAW.		DA912D045					
DWN.		雷 冰		06·17'09		QINGDAO TECO Precision Mechatronics Co.,Ltd.		NO.							
1		1		2		1		3							