

符合RoHS指令要求
CONFORM TO RoHS INSTRUCTIONS

◎步进电机规格书

SPECIFICATION FOR STEPPER MOTOR

上海四横电机制造有限公司

◎电气特性参数/ELECTRICAL PARAMETER

60BYGH2100-3004A

◎力矩曲线/MOMENT CURVE

驱动方式/DRIVING MODE: 恒流驱动/CONSTANT CURRENT DRIVE
 驱动电压/DRIVING VOLTAGE: 24VDC
 励磁方式/EXCITATION MODE: 2相/PHASES
 备注: 电流峰值等于 $\sqrt{2}$ 倍的有效值
 REMARK: PEAK CURRENT IS EQUAL TO $\sqrt{2}$ TIMES EFFECTIVE VALUE

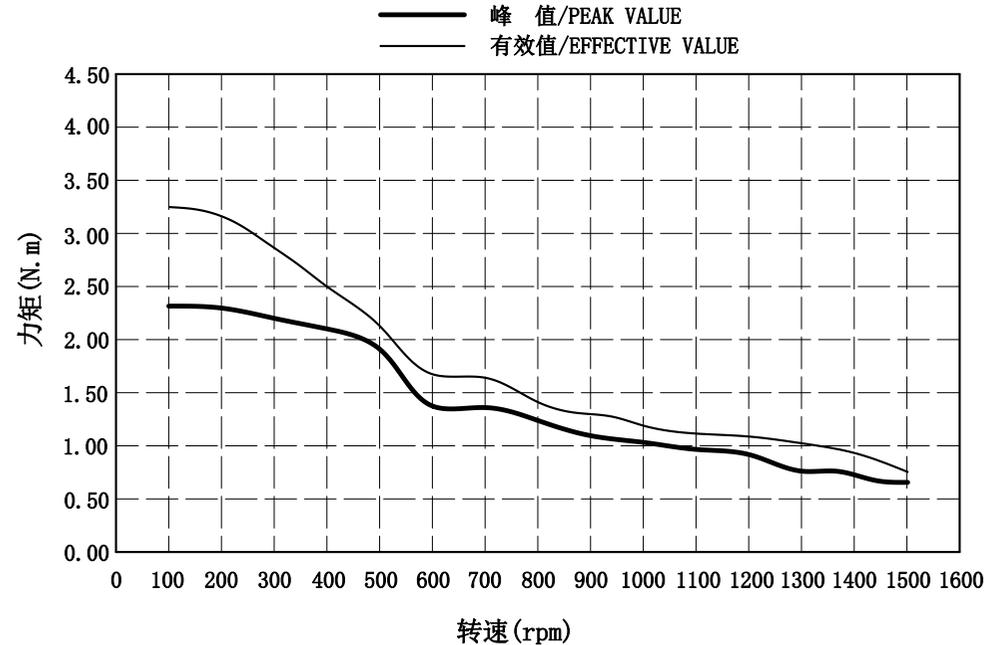
相数 PHASES	2	
步进角 STEP ANGLE	1.8° ±5%	
步进角误差 STEP ANGLE ERRORS	±0.09°	注释)3
额定电压 RATED VOLTAGE	4.8 V	
额定电流 RATED CURRENT	3 A	
电阻 RESISTANCE	1.6 ohm±10%	at 20° C
电感 INDUCTANCE		注释)1
保持力矩 HOLDING TORQUE	3.5 N.m	注释)2
绝缘耐压 DIELECTRIC STRENGTH	500V A.C 1分钟/MINITE	注释)4
绝缘电阻 INSULATION RESISTANCE	100 MΩ 以上/MIN.	注释)5
绝缘等级 INSULATION CLASS	Class B	
温度上升 TEMPERATURE RISE	80K MAX.	注释)6
转子惯量 ROTOR INERTIA	≈3200g.cm ²	
重量 WEIGHT	≈4000g	
最大轴向跳动 MAXIMUM AXIAL RUNOUT TOLERANCE	0.075mm(负载920g)	
最大径向跳动 MAXIMUM RADIAL RUNOUT TOLERANCE	0.025mm(负载450g)	
使用环境温度 CONSERVE AMBIENT TEMP.	0° C——+50° C	
使用环境湿度 CONSERVE AMBIENT HUM.	20%RH——90%RH	注释)8
保存环境温度 CONSERVE AMBIENT TEMP.	-20° C——+70° C	
保存环境湿度 CONSERVE AMBIENT HUM.	15%RH——95%RH	注释)8
使用寿命 SERVICE LIFE	5000 小时/HOURS	注释)7

注释):

- 在1k Hz 1Vrms条件下测试;
- 在额定电流, 2相励磁下进行测试;
- 不包括励磁误差2相励磁;
- 在电机引线和铁芯之间加50HZ交流电压1分钟无异常, 漏电流小于3mA;
- 在电机引线和铁芯之间加500V. D. C电压;
- 额定电流无负载安装在铝板上使用电阻法测试;
- 额定电流轴承温度低于80°C条件下进行寿命试验;
- 表面无结霜;

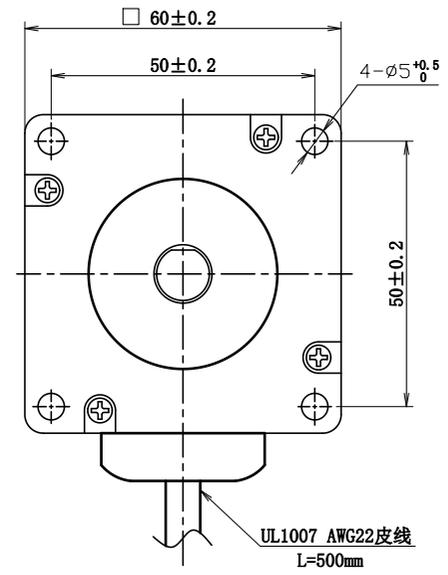
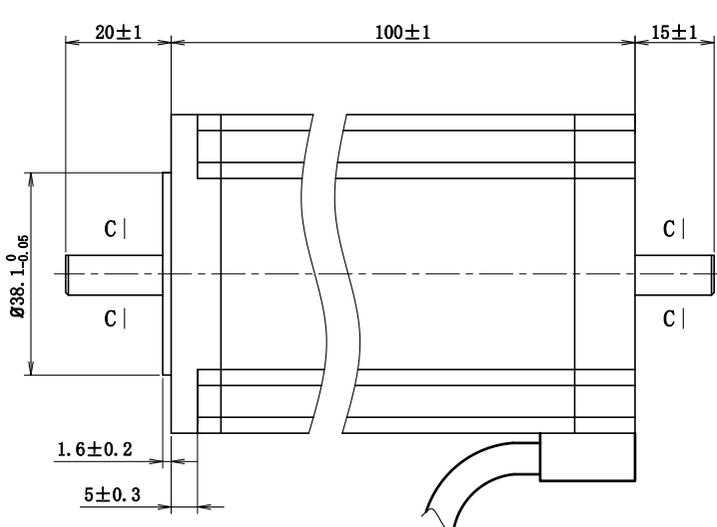
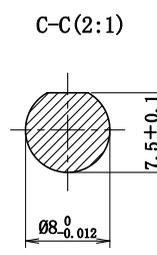
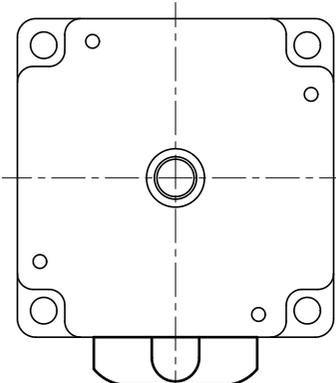
Notes):

- Testing at 1K hz 1 VRMS;
- Test at rated current, 2-phase excitation;
- Excluding excitation error 2 phase excitation;
- Add 50 HZ AC voltage between motor lead and iron core for 1 minute without abnormal, leakage current less than 3 ma;
- Add 500 v. between the motor lead and the iron core. D. C Voltage;
- Rated current no load mounting on aluminum plate using resistance method;
- Rated current bearing temperature below 80 ° C for Life Test;
- No Frost on the surface;

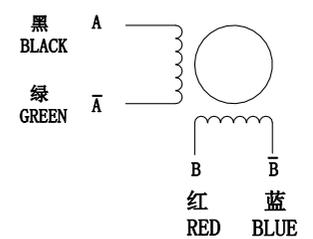


CONFIRMED&ACCEPTED BY CUTOMER (客户确认&接受)				型号/MODEL			
COMPANY CHOP&SIGNATURE (盖章&签名)				60BYGH2100-3004A			
一般公差 TOLERANCE	±0.3/±3°	版本 REV.	年月日 DATE	变更番号 ECO NO.	变更内容 REVISIONS	设计 BY	备注 NOTE
设计/DESIGNED		比例 SCALE	1:1	品名 TITLE	步进电机规格书 STEPPING MOTOR SPECIFICATION		三视图 THIRD ANGLE PROJECTION
审核/CHECKED		单位 UNIT	mm	上海四横电机制造有限公司			页 SHEET
							1/1

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接线图/Wiring Diagram

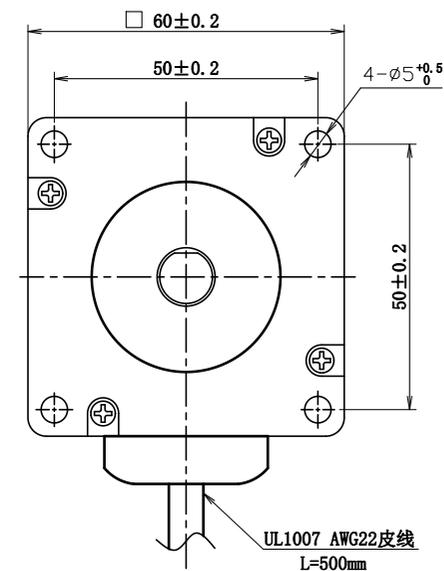
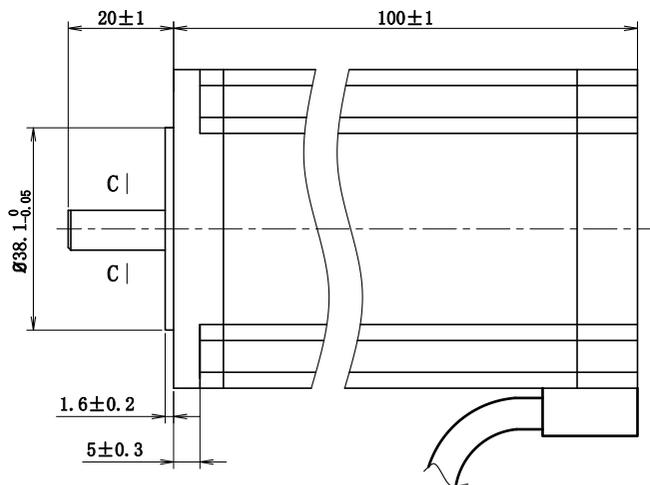
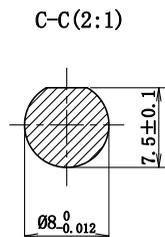
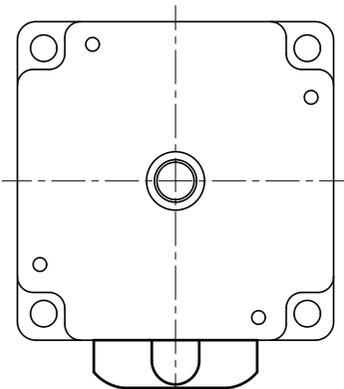


励磁顺序 (2相励磁)
EXCITING SEQUENCE (TWO PHASE)

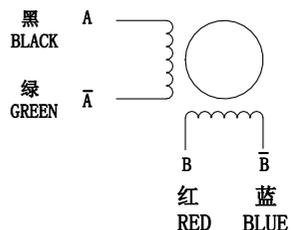
STEP	A	B	Ā	B̄	
1	+	+	-	-	
2	-	+	+	-	
3	-	-	+	+	
4	+	-	-	+	

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COMPANY CHOP&SIGNATURE (盖章&签名)				60BYGH2100-3004B-08	
A	2013-03-08	—	初版	SLong	
一般公差 TOLERANCE	±0.3/±3°	版本 REV.	年月日 DATE	变更番号 ECO NO.	变更内容 REVISIONS
制图/DRAWN		比例 SCALE	1:1	品名 TITLE	步进电机规格书 STEPPING MOTOR SPECIFICATION
设计/DESIGNED		单位 UNIT	mm		
审核/CHECKED		上海四横电机制造有限公司			备注 NOTE
承认/APPROVED					页 SHEET
					REV. A 1/1

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接线图/Wiring Diagram



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EXCITING SEQUENCE (TWO PHASE)

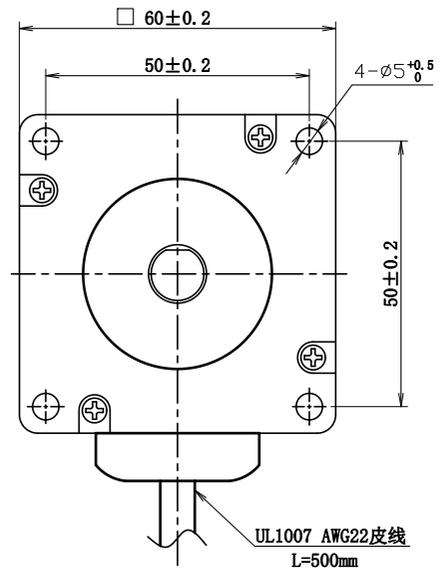
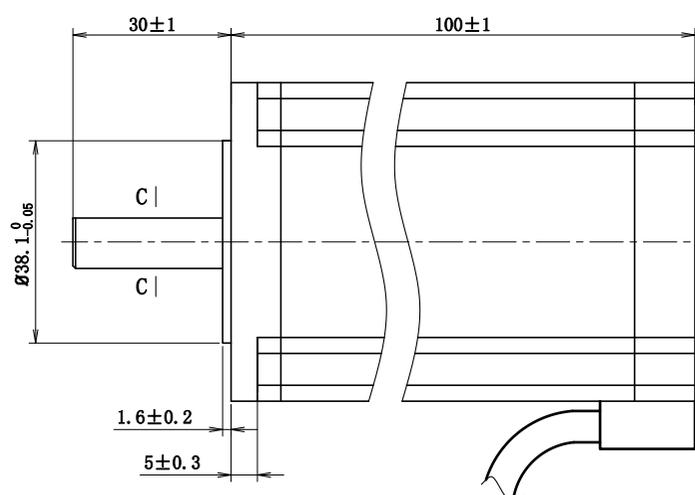
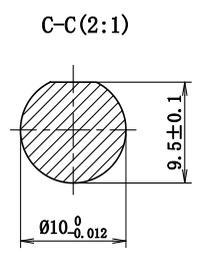
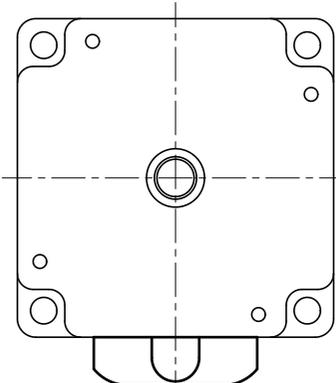
STEP	A	B	Ā	B̄
1	+	+	-	-
2	-	+	+	-
3	-	-	+	+
4	+	-	-	+

CW CCW

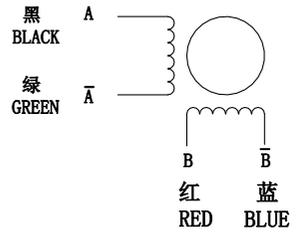
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励磁顺序 (2相励磁)
EXCITING SEQUENCE (TWO PHASE)

STEP	A	B	Ā	B̄	
1	+	+	-	-	CW ↓ CCW ↑
2	-	+	+	-	
3	-	-	+	+	
4	+	-	-	+	

CONFIRMED&ACCEPTED BY CUTOMER (客户确认&接受)				型号/MODEL	
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制图/DRAWN		比例 SCALE	1:1	品名 TITLE	步进电机规格书 STEPPING MOTOR SPECIFICATION
设计/DESIGNED		单位 UNIT	mm		
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