# 深圳市金皇冠微电机有限公司 Shenzhen Gold Crown Micromotor Co., Ltd.

# 电机样品承认书 SPECIFICATION FOR APPROVAL

CUSTOMER :	
PRODUCT MODEL:	
MOTOMODEL :	GC-997SH-05228-121
DATE:	2017-6-24

MANUFACTURER' S CONFIRMATION:				
APPROVED	CHECKED			PREPARED
H. YANG	K. ZHANG		Sam	uel 2017-6-24
PROJECT NO.	1702034	REV		A

CONFIRMED & ACCEPTED BY CUSTOMER COMPANY CHOP & SIGNATURE (客户确认回签):

(本承认书包含:规格书、外形图、性能曲线图、样品测试报告)

(Approval comprise:Specification Sheet, Outline Drawing, Performance Chart, Sample Test Report)

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#### 1. Standard Operating Conditions 标准使用条件

		1		
1-1	Rated voltage	12.0V DC CONSTANT between motor terminals		
1-1	额定电压	电机端子间加 12.0V DC		
1.0	Operating Voltage range	6.0V-18.0V DC CONSTANT between motor terminals		
1-2	使用电压范围	6.0V-18.0V DC (电机端子间)		
1-3 Rated Load		139*60*2		
1-5	额定负载	157 00 2		
1-4 Direction of Rotation		CCW		
1-4	旋转方向			
L	Side Pressure	Less than 100gf Min at a position 5mm above motor		
1-5	侧压	installation surface		
		出力轴端离安装表面 5mm 侧压小于 100gf Min		
1.6	Opersting temperature Range:	$0^{\circ} C^{+}50^{\circ} C$		
1-6	使用温度范围			
1 7	Storage Temperature Range	-40° C~+85° C		
1-7	储存温度范围			
Motor Position		All direction of protruded shaft		
1-8	电机姿势	出力轴所有方向		
1.0	Grounding Polarity	No polarity		
1-9	接地极性	无极性		
1.10	Type of Load	Gear or belt		
1-10	负荷种类	齿轮或传送带		

2-1	Motor position 电机姿势	Motor to be held with shaft horizontally 出力轴水平放置
2-2	Power supply 电源	Regulated power supply which assuage unquestionable measurement 可调节直流稳压电源,确保测量时无疑问
2-3	Environmental Temperature and Hunmidity 湿度和温度	The test is made in principle of a ten perature between $10^{\circ}$ C to $30^{\circ}$ C And at relative humidity between 30% and 95% if the test result is questionable it shaft be judged from the test made at JIS Standard Testing condition ( $20^{\circ}$ C $\pm 2^{\circ}$ C, $65\% \pm \%$ RH) 原则上温度为 $10^{\circ}$ C $\sim 30^{\circ}$ C, 湿度为 $30\% \sim 95\%$ , 如果测试结果 有疑问,则按 JIS 标准 ( $20^{\circ}$ C $\pm 2^{\circ}$ C, $65\% \pm 5\%$ RH)

## 2. Measuring conditions 测试条件

### 3. Electrical Characteristics 电气性能

3-1	No Load Current 空载电流	Rated Voltage No Load 额定电压、空载时	0.7A max
3-2	No Load speed 空载转速	Rated Voltage No Load 额定电压、空载时	3050±10%rpm
3-3	Stall Current 堵转电流	Reted Voltage 额定电压下	24.45A max
3-4	Starting Voltage 起动电压	No Load 空载时	3V max
3-5	HI-POT TEST 高压测试	600V DC/1S/5mA between motor shaft and supply(±) 电机端子和轴间加 600V DC/1S/5mA	600V DC/1S/5mA
			ty.

	External appearance	Outer dimensions to be within be tolerances	
	外观	specified in the attached Drawing remarkable deformation or superficial	
4-1		defects to be observed by visual chec k	
		Fastoned parts to be fixed firmly	
		外型尺寸符合附图外观无明显变形或表	
		面损伤,紧固件应安装牢固	
	Shaft end play	End play for thrust direction of protruded	0.35mm MAX
4-2	轴向间隙	shaft 向轴伸方向拉动出力轴	
	Shaft T.I.R	At3.0mm away from the mounting surface	0.01mm max
4-3	轴径向跳动	距机壳端面 3.0mm 处	
а. 	Perpendicularity of		90° ±9´
4-4	output shaft		
	出力轴垂直度		(21)
	Mecbanical Noise 机械噪音	No load (approx3050rpm) Measured with following condition Background noise:	65dB max
	1/1/1/风 一禾 白	40dB max.	
		空载转速(约 3050rpm)背景噪音小于	
		40dB. 测试方法如下:	
4-5		Motor 20CM 马达	
	a	Microphone 噪音仪	
·		жы іх 	
Cr.	Maximum Axial Load	Direction of static Load and support of	20Kg max
	最大轴向力	Load as shown below 轴间静推力和支撑位置的方向见下图	
4-6		By stotics Lood	
			*3
	Vibration	To be set with mutual agreement	Same or less than
4-7	振动	经用户确认同意	limitation sample
			L

### 4. External & Functional Characteristics 结构及机械性能

#### 5.Environmental Tests. 环境试验。

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Storage Test	to+70°C $\pm$ 20°C for 72 hours,and then to	
Under high	temperature /humidity of ltem 2-3 for	
Temperaure	24hours.	
高温放置试验	电机放于+70℃±20℃环境中 72 小时,	
~	再在常温、常湿下放置 24 小时, 电机性	
	能3和4的指标不变。	
5.	All of the specifications in Item 3 and 4 are	
	to be satisfied after motors exposed to	
	$-40^{\circ}$ C $\pm 3^{\circ}$ C for 72 hours, and then to	
	temperature/humidity of Item 2-3 for 24	
1	hours.	
低温放直试验	电机放于-40℃±3℃环境中 72 小时,再	
	在常温、常湿下放置 24 小时, 电机性能	
	3和4的指标不变。	
	All of the specifications in Item 3 and 4 are	
	to be satisfied after motors exposed to	
Stone or Treat	+60°C ±2°C/90%-95% RH for96	
5-3 Under high	hours, and then to temperature / humidity	
	of Item 2-3 for 24 hours.	
· ·	电机放于+60℃±2℃相对湿度为	
局温、 <b>向</b> 涩饵仔 <b>以</b> 短	90%-95%的环境中 96 小时,再在常温、	
	常湿下放置24小时,电机性能3和4的	
	指标不变。	
	Temperaure 高温放置试验 Storage Test under low Temperature 低温放置试验 Storage Test	Under high Temperaure 高温放置试验temperature /humidity of ltem 2-3 for 24hours. 电机放于+70℃±20℃环境中 72 小时, 再在常温、常湿下放置 24 小时,电机性 能3 和 4 的指标不变。Storage Test under low Temperature 低温放置试验All of the specifications in ltem 3 and 4 are to be satisfied after motors exposed to -40℃±3℃ for 72 hours, and then to temperature/humidity of ltem 2-3 for 24 hours. 电机放于-40℃±3℃环境中 72 小时,再 在常温、常湿下放置 24 小时,电机性能 3 和 4 的指标不变。Storage Test 

#### 6.Life Test 寿命试验

At  $25^{\circ}C \pm 5^{\circ}C/65\% \pm 20\%$ RH. Rated coltage, Rated load.

The test shall be made by using the specified life test apparatus, on 20 min,off 20 min,Life:500 H min.

在 25℃±5℃/65%±20%RH, 额定电压, 额定负载条件下按所定的寿命试验装置 开 20 分钟, 停 20 分钟, 寿命:至少 500 小时。

Judgement of failure (measurement condition shall be as specified in cloused 2). 故障的判定: (测试条件包括 2 的项目)

	Item	Judgement of failure	
	项目	内容	
1	Motor is unquestionable recognized as unusable.		
1	±	电机出现异常被确认无疑时,	
	Deted Leed Comment	When the current gets varied over $\pm 35\%$ against the	
2 Rated Load Current 预启各世中述	initial figure.		
	额定负载电流	当电流超出初始值的±35%	
	Detail and Grand	When the speed gets varied over $\pm 15\%$ against the initial	
	Rated Load Speed	figure.	
	额定负载转速	当转速超出初始值的±15%	