



# 深圳市科硕电机有限公司

## SHENZHENSHIKESHUO MOTOR CO., LTD.

### 样板规格书

#### MODEL SPECIFICATION

客户名称 Customer Name			
文件编号/Spce No	20171216003		
品名/Descrption	永磁直流马达/PMDC motor		
型号/part No	KS-GM12-N20VA-00501-10D		
作成/Drawn	审核/Checked	批准/Approved	日期/Date
			2017-12-16

客户确认栏

CUSTOMERAPPROVAL

地址:中国·广东省深圳市宝安区松岗街道燕罗公路90号星辉工业城五栋二楼

电话/Tel: 0086-755-27055246

传真/Fax: 0086-755-27055245

电邮/E-mail: szkshuo@163.com

公司主页/Website: <http://www.szksdj.com>

<https://szkeshuo.1688.com>

# PRODUCT SPECIFICATION

## 1. 标准使用条件 Standard operating condition

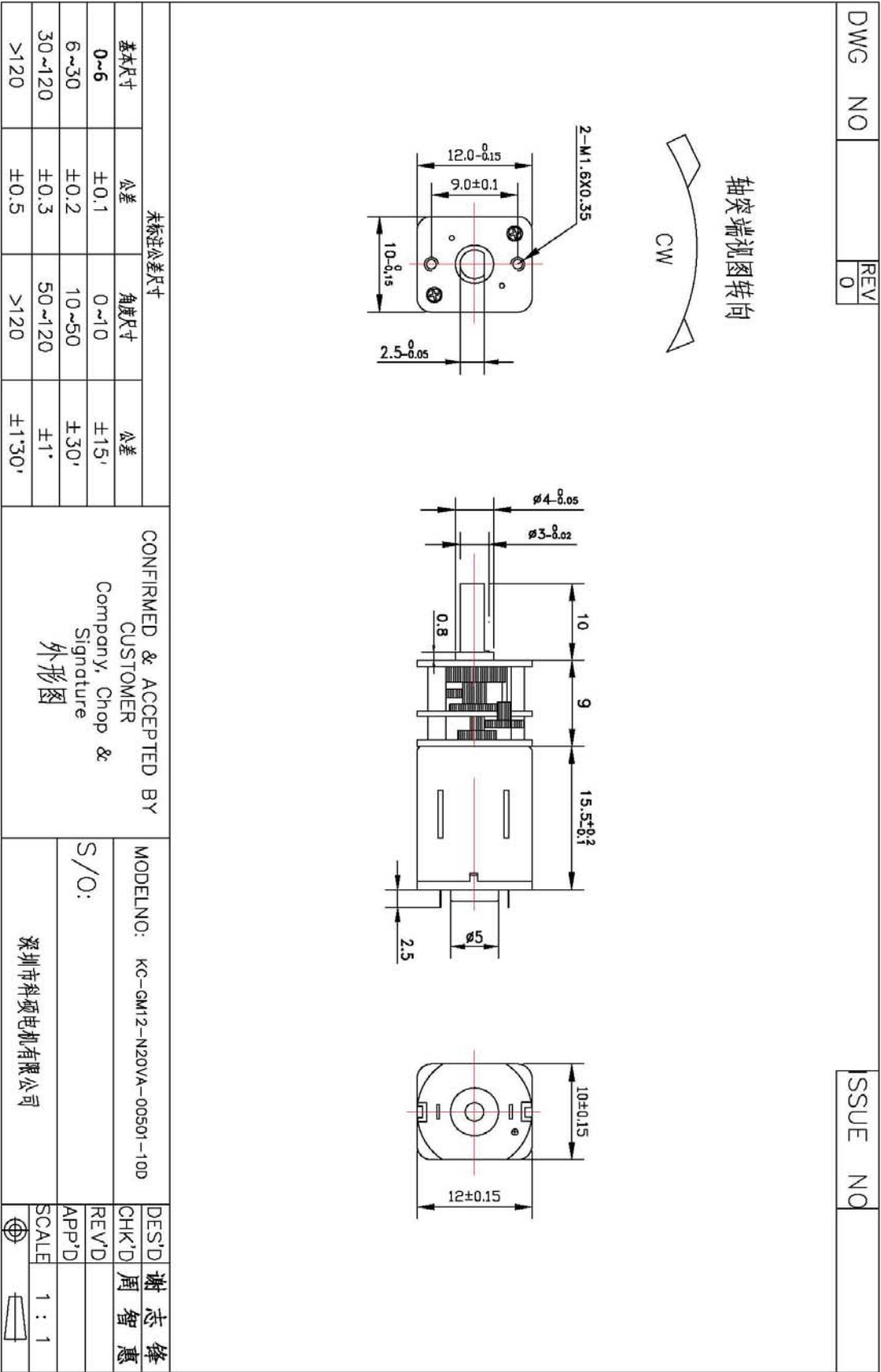
NO 序号	Item 项目	Specification 规格
1.1	Rated voltage 额定电压	Motor teminal voltage : 5.0VDC 马达端子电压:5.0VDC
1.2	Rated load 额定负荷	Weight 100g-cm
1.3	Rotation direction 旋转方向	CW ( When viewed from output side with +ve voltage applied to +ve terminal) 顺时针方向旋转 (轴突视之, 电压正极接端子正极)
1.4	Motor position 摆放位置	Any position is available 任意位置均可
1.5	Voltage range for use 工作电压范围	DC:4V~10.0V
1.6	Operating conditions 使用环境	-20℃~60℃ ordinary humidity常规湿度 15%~90%RH (no condensation of moisture/不凝露)
1.7	Storage conditions 贮存环境	-20℃~70℃ ordinary humidity常规湿度 15%~75%RH (no condensation of moisture/不凝露)
1.8	Appearance 外观	Surface without oxidation scratch damage, etc 表面无氧化、损伤、变形等

## 2. 电气性能 Electrical characteristics

NO. 序号	Item 项目	Measuring condition 测试条件	Specification 规格
2.1	No-Load current 空载电流	At Rated voltage and no load 额定电压及无负荷下测试	$\leq 180\text{mA}$
2.2	No-Load speed 空载转速		$500 \pm 12\% \text{ rpm}$
2.3	Rated Load 额定负荷	At Rated voltage and rated load 额定电压及标准负荷下测试	100g-cm
2.4	Rated current 额定电流		$\leq 360\text{mA}$
2.5	Rated speed 额定转速		$440 \pm 15\% \text{ rpm}$
2.6	Starting Voltage 始动电压	Connect the voltage into the ends 将电压直接接在马达端子之间	1.5VDC Max
2.7	Insulation resistance 绝缘电阻	At DC 100V, measured between housing case and terminal. 在 100V 直流电压下, 电机引线与外壳间测量	$\geq 1\text{M}\Omega$
2.8	STALL CURRENT/ 堵转电流	接 AT RATED VOLTAGE AND SHAFT LOCK./在额定电压下输出轴堵转	1.8 AMax
2.9	Starting Torque 堵转力矩	额定电压, 两点法 0 和 5.0 g-cm./ At rated voltage and two different load, 0 and 5.0 g-cm.	550g-cm Min

3.附件 ATTACHMENT

1) 电机外形图 Motor Outline Drawing



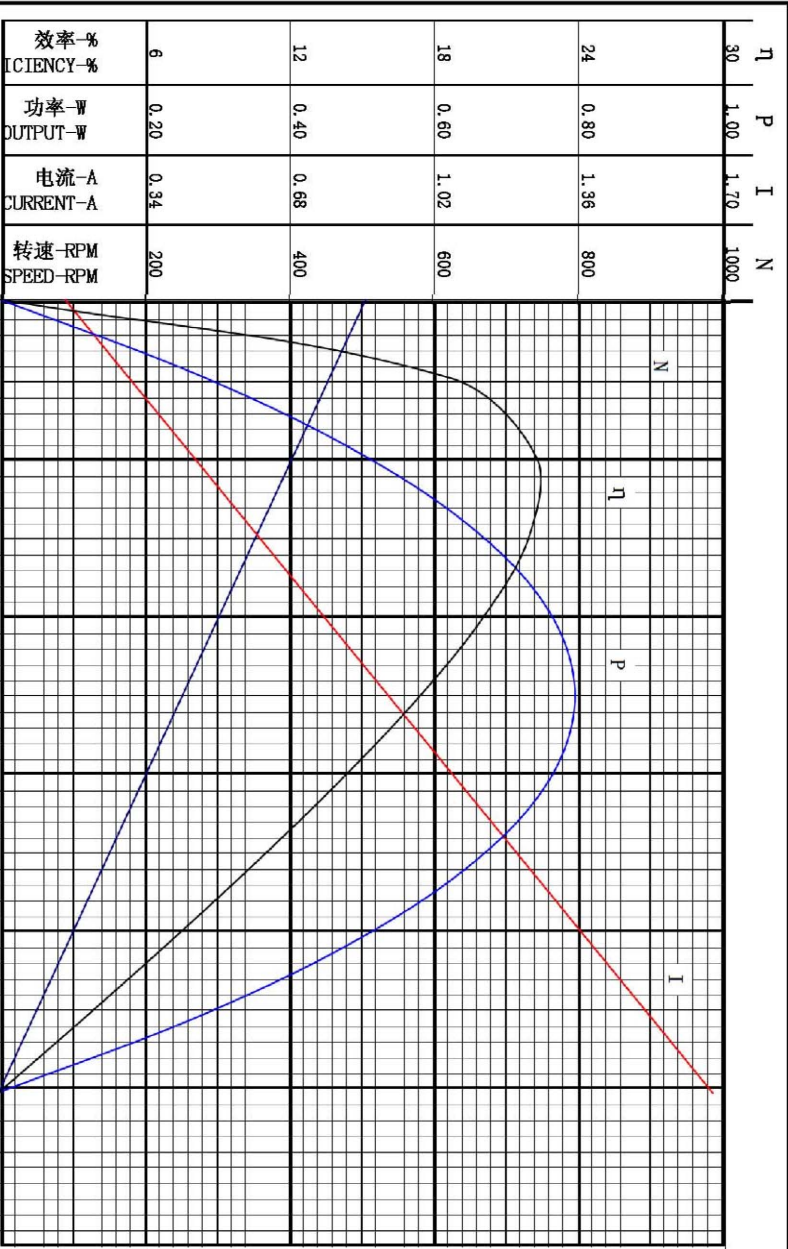
4. BARE MOTOR PERFORMANCE CURVE/电机性能曲线

电机特性曲线Motor Performance Curves and Characteristics

馬達型號Motor Model: KC-GMP12-N20VA-0501-10D

电压VOLTAGE: 5.0 V

造板單號SSO No: P20171114-03A



性能PERFORMANCE

無負荷點AT NO LOAD

轉速SPEED = 505 RPM  
電流CURRENT = 0.154 AMP

堵轉點AT STALL EXTRAPOLATION

力矩TORQUE = 612.000 G·CM  
電流CURRENT = 1.668 AMP

最大效率點AT MAXIMUM EFFICIENCY

效率EFFICIENCY = 22.356 %  
轉速SPEED = 389 RPM  
力矩TORQUE = 140.760 G·CM  
電流CURRENT = 0.502 AMP  
功率OUTPUT = 0.561 WATTS

最大輸出功率點AT MAXIMUM OUTPUT

效率EFFICIENCY = 17.398 %  
轉速SPEED = 253 RPM  
力矩TORQUE = 306.000 G·CM  
電流CURRENT = 0.911 AMP  
功率OUTPUT = 0.792 WATTS

馬達常數Motor Constant

扭力常數  $K_T$  = #REF! G·cm/A  
電壓常數  $K_E$  = #REF! V/krpm  
馬達常數  $K$  = #REF! G·cm/ $\Omega$   
端子動態電阻  $R_T$  = #REF!  $\Omega$

曲線僅表示個別樣品的技術特性

THE CURVES REPRESENT THE THEORETICAL PERFORMANCE OF THE SAMPLE ONLY.

出件人Prepared by:

審核人Checked by:

表格编号: FR-B-SE-08/修订水平-00