

产品规格书

PRODUCT SPECIFICATION

客户名称Buyer Name	
客户料号Buyer Part No.	
客户承认签章 Buyers Approval & Signatures	

文件编号Spec No.		版本	A/0
品名描述 Product Description	Cylindrical Vibration Motor		
型号Part No.	JP08-74D160A		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
陳满	陈北叶		
2019.5.9	2019.5.9	2019.5.9	

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	编 号 CODE NO:	P.1/7

1. 适用范围:/Scope:
- The document defines the standard specifications and test conditions for the DC gear motor JP08-74D160A which is to be delivered by Jinlong Machinery & Electronics.
2. 标准使用条件:/Standard Operating Conditions :

序号/Item NO	项 目/Items	规 格/Specifications
2-1	额定电压/Rated voltage	马达端子间直流电压 4.5V/DC4.5V between motor terminals
2-2	使用电压范围 Operating Voltage Range	马达端子间直流电压 1.5V ~ 6.0V DC1.5V ~ 6.0V between motor terminals
2-3	额定负载 Rated Load	2.0g.cm 力矩盘负载 2.0g.cm (by pulley load)
2-4	使用温度范围 Operating Temperature Range	-20℃ ~ +60℃ 常湿下 At normal humidity.
2-5	保存温度范围 Storage Temperature Range	-30℃ ~ +65℃
2-6	马达姿势 Operating Position	出力轴全方位 Output shaft all direction

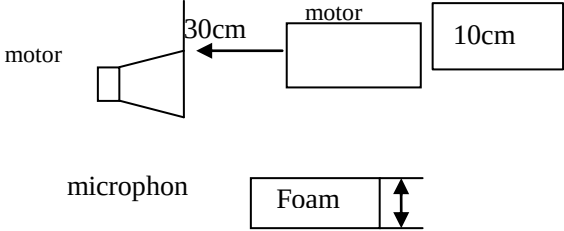
3. 测试条件: /Test Conditions:

序号/Item NO	项 目/Items	测试条件/ Test Conditions
3-1	马达姿势: Operating Position	检查时, 出力轴水平放置/When inspected ,the shaft is horizontal .
3-2	电源: Power Source	确保测试无问题的可调直流稳压电源/Regulated DC power supply which assures unquestionable measurement.
3-3	环 境 温 度 和 湿 度 : Temperature & Humidity	+10 ℃~ +30 ℃ 和 45%~85%RH。如果判断有疑问, 则按 JIS 标准试验条件(+18℃ ~ +22℃,60 ~ 70%RH)。In standard test, measurement is to be made at +10℃ ~ +30℃ and relative humidity 45%~85%RH. If the judgment is questionable, the measurement is to be made based on JIS standard testing condition(+18℃ ~ +22℃,60 ~ 70%RH)
3-4	旋转方向 Rotating Direction	从出力轴方向看为顺时针 CW when viewed from output shaft side.

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4. 电气性能:/Electrical Characteristics:			
序号 Item NO	项 目/Items	测试条件 /Test conditions	规格/Specifications
4-1	额定负载转速 Rated load Speed	额定电压, 偏心轮负载 (R3.6*5.5*Ø1) At rated voltage and Eccentric load	15000±12% r/min
4-2	额定负载电流 Rated load Current	额定电压, 额定负载 At rated voltage and rated load	200mA 最大 200mA (max.)
4-3	空载转速 No load Speed	额定电压, 空载 At rated voltage and no load	22000±12% r/min
4-4	空载电流 No load Current	额定电压, 空载 At rated voltage and no load	55mA 最大 55mA (max.)
4-5	起动力矩 Starting torque	额定电压, 两点法 0 g.cm 和 2g.cm. At rated voltage and two different load, 0g.cm and 2g.cm	6.0g.cm (ref)
4-6	起动电压 Starting Voltage	无负荷 Under no load	1.5V 最大 1.5V (max.)
4-7	端子间电阻 Terminal Resistance	温度 20℃时, 转子在 2/3R 位置(R 为一极的电阻) At 20℃, rotor position to be 2/3R.(R means the resistance in one pole)	11 ±0.2Ω
4-8	绝缘电阻 Insulation Resistance	在马达外壳与端子间施加 DC 100 V 电压 Measured between terminal and frame with 100V DC megger.	1.0 MΩ 最小 1.0 MΩ(min.)
4-9	堵转电流 Stall Current	额定电压, 转子在 2/3R 位置 (R 为一极的电阻) At rated voltage, rotor position to be 2/3R.(R means the resistance in one pole)	320mA (ref) 320mA(ref)
4-10	电气噪音 Electrical Noise		已装有噪声抑制元件压敏电阻器 To be equipped with varistor

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5. 机械性能:/Mechanical & Functional Characteristics:

序号/Item NO	项 目/Items	测试条件/ Test conditions	规格/Specifications
5 - 1	外观 External Appearance	目视 Remarkable deformation or superficial to be observed by visual check	适合使用 Appropriate for usage.
5 - 2	外观尺寸 Dimension	马达外形图 Refer to construction drawing.	
5 - 3	Weight/重量	Scale/电子秤	Approx 3.4g
5 - 4	机械噪声 Mechanical noise	在下列条件时:电机施加额定电压, 空载. 背景噪声: 30dB (max.) No load, rated voltage, with motor to be set and measured as below. Background noise: 27 dB max. add light radial force (approx 0.491N) when the clearance noise detected. 	55dB max. JIS-A(RMS) Except clearance noise.

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6. 环境试验:/Environmental Tests:

序号 Item NO	项目 Items	测试条件/ Test conditions	规格/Specifications
6 – 1	跌落试验 Drop test	最小捆包状态的马达，以包装箱的 6 面分别 1 回合从 100cm 高度跌落于 10cm 厚度的木板上 Smallest packing dropped on wooden block of 10cm thickness from 30cm height , once for each 6 faces of the packing.	性能应能满足 4.1~4.9 &5.1~5.3 项中所有要求。 All of the specifications in Item 4.1~4.9 and 5. 1 ~5-3,are to be satisfied
6 – 2	低温储存试验 Storage Test under low temperature	将马达在-30℃低温环境中放置 48H 后，再在常温常湿环境中放置 4H 再测试。 Motor exposed to -30℃ for 48 hours and then to normal temperature /humidity for 8hours before measurement	

Jinlong Machinery & Electronics

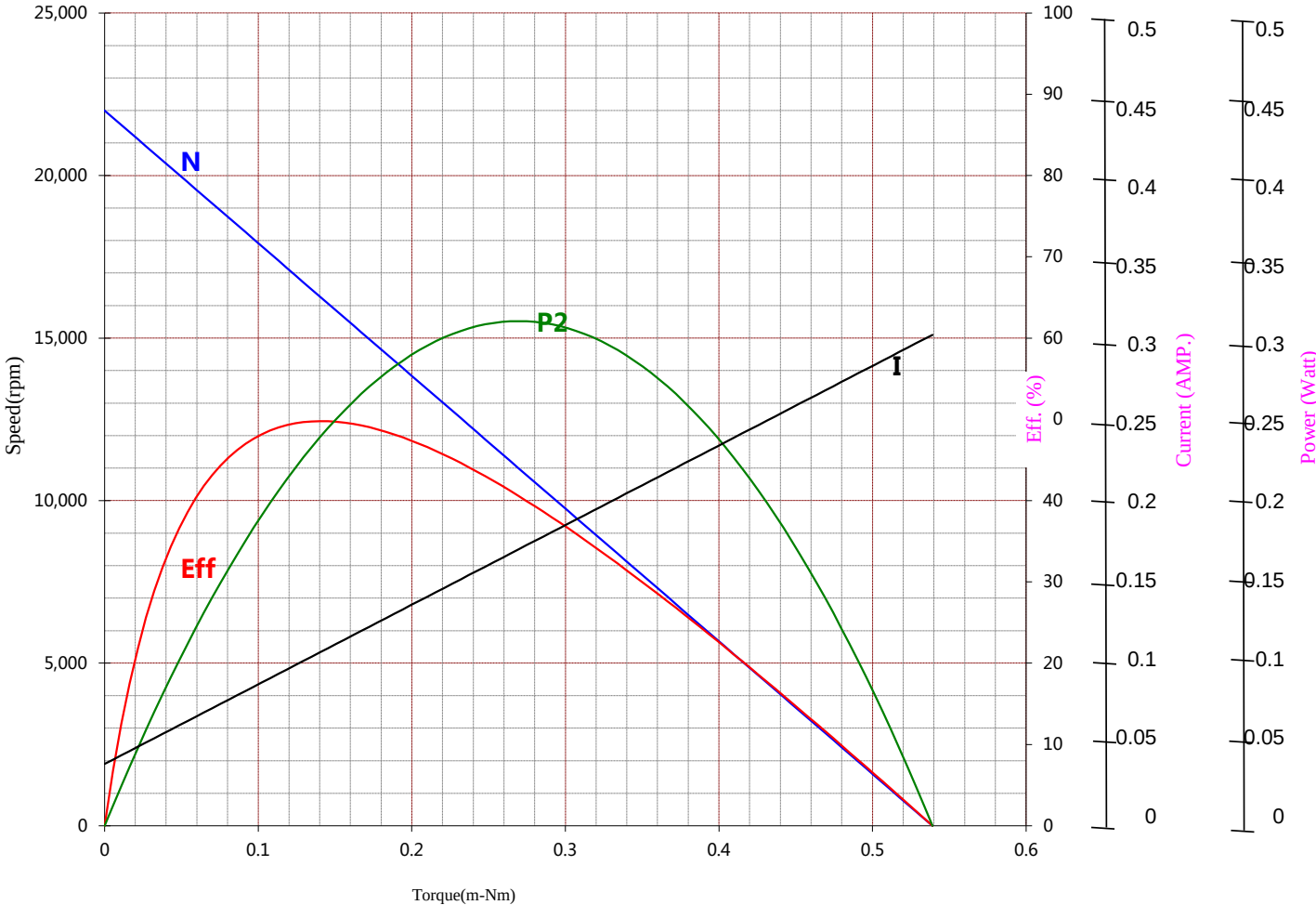
SOF NO : 0 Motor Type: JP08-74D160A

Date : 2019/5/1

Project No.: 0

Winding : 0.00 - W T

Motor test reference no : CW



Performance (in an ambient temperature of 25 °C)

Motor tested rapidly to prevent significant temperature rise.

At a constant voltage of 4.50 Volts

With a circuit resistance of 0.00 Ohm

At No Load

Speed : 22000 Rpm

Current : 0.038 Amp

At stall (Extrapolated)

Torque : 0.54 m-Nm

Current : 0.30 Amp

At maximum efficiency

Efficiency : 49.79 %

Torque : 0.14 m-Nm

Speed : 16239 Rpm

Current : 0.11 Amp

Output : 0.24 Watts

At maximum power

Torque : 0.27 m-Nm

Speed : 11000 Rpm

Current : 0.17 Amp

Output : 0.31 Watts

Characteristics

Torque Constant : 2.042 m-Nm/Amp

E.M.F Constant : 2.042 mV/rad/sec

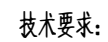
Dy. Resistance : 14.901 Ohms

Motor Regulation: 40816.327 Rpm/m-Nm

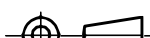
At torque level:

Torque: m-Nm

COMPUTER PRINT-OUT NOMINAL MOTOR CURVES.
Performance and characteristics are measured based on limited



1. 未注公差按GB1804-m;
2. 成品须符合欧盟ROHS要求, EN71-3要求及PAHS指令要求, 塑胶材料不得使用/添加6P(邻苯二甲酸盐)及双酚A;
3. 当电源正极接电机端子“-”处时, 电机CCW方向旋转(轴突向身);
4. 电机虚位为0.05-0.30mm;
5. 电机轴与端之间绝缘电阻为100VDC/10M Ω min.

				材质: 外形图	名称			成品电机	
					 比例			型号	JP08-74D160A
								3:1	
标 记	内 容		签 名		日 期	阶段标记	数量	重量	Jinlong Machinery R&D
设 计		审 核							
绘 图		批 准							