

SPECIFICATION
规格书

客户名称 (Customer Name) : _____

客户代号 (Customer Model) : _____

型号 (Product Model) : _____ 1154006 _____

样板单号 (Sample No.) : _____

板次 (REV) : _____

制作 (PREPARED BY) _____

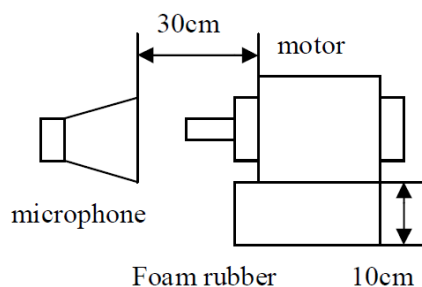
确认 (CHECKED BY) _____

批准 (APPROVED BY) _____

客户确认及签名 (SIGNATURE FOR APPROVAL)

确认日期 (DATE OF APPROVAL)

1. 电机类型 (Motor Classification): 永磁直流电机 (Micro PMDC Motor)
2. 标准工作条件 (Standard Operation Conditions):
 - 2-1. 额定电压 (Rated Voltage): 12.0V DC
 - 2-2. 旋转方向 (Rotating direction): CW
 - 2-3. 环境温度范围 (Environment Temp): -20°C-50°C
 - 2-4. 环境湿度范围 (Environment Humi): 30%-80%RH Without Condensation .
3. 检验测试条件 (Inspection Conditions):
 - 3-1. 测试电源 (Testing Power Supply): 稳定直流电源 (Stable DC Power Supply)
 - 3-2. 电机放置状态 (Placement of Motor): 测试时水平放置 (Horizontal)
 - 3-3. 环境温度范围 (Environment Temp): 15°C-35°C
 - 3-4. 环境湿度范围 (Environment Humi): 35%-75%RH
4. 电气特性 (Electrical Characteristics):
 - 4-1. 空载电流 (No Load Current): 240mA Max
 - 4-2. 空载转速 (No Load Speed): 600 ± 10% rpm
 - 4-3. 负载 (On Load): 40 mN.m
 - 4-4. 负载电流 (On Load Current): 620mA Max
 - 4-5. 负载转速 (On Load Speed): 480±10%rpm
 - 4-6. 绝缘等级 (Insulation Level): E 级
 - 4-7. 绝缘电阻 (Insulation Resistance): 250V/1MΩ
 - 4-8. 性能特性 (Performance Characteristics):
参照电机性能曲线图 (Refer to the Performance Curve Attached)
5. 机械特性 (Mechanical Characteristics):
 - 5-1. 外形尺寸 (External Dimension): 参照电机外型图 (Refer to the Dimension Drawing Attached)
 - 5-2. 轴向虚位 (Shaft Axial-Play): 0.5mm Max
 - 5-3. 转轴径向跳动 (Shaft Radial-Play): 0.05mm Max
6. 电机噪音 (Motor Noise Level)
60dB max; 额定电压空载运行, 且背景噪音不超过 30dB,测试距离 300mm,测试示意图如下。(60dB max; With a background noise of 30dB max; 300mm distance from the flange of Motor ,see the motor testing placement under) .



7. 电机寿命 (Motor Lifetime):

测试电压: 额定电压, 测试环境温度/湿度: 15°C-35°C/ 55%-75%RH, 额定负载条件下, 按 CCW15分 ON10分 OFF/CW15分 ON10分 OFF, 累计运行 3000 cycles Min.

(≥ 3000 cycles with load torque and load rated voltage. Work Duty: CCW 10Mins- Power off 5Mins-CW 10 Mins- Power off 5Mins-CCW 10 Mins....; Testing Temp: 15°C-35°C , Testing Humi: 55%-75%RH).

马达寿命终止判定标准 (Criterion of Ending of Motor Life):

1) 在额定电压下, 额定转速的变化超过初期读数的 $\pm 30\%$;

(Rated speed varise $\pm 30\%$ from the initial rated speed under the rated voltage);

2) 在额定电压下, 额定电流的变化超过初期读数的 $\pm 30\%$;

(Rated current varise $\pm 30\%$ from the initial rated speed under the rated current);

3) 从表面上看即可判定马达运行不稳定的。

(Unstable performances which can judged by men's sensory system).

8. 电机重量 (Weight of Motor): 大约 110 g (Approx) .

9. 注意事项 (Matters and Attentions):

9-1. 使用容差 (Power-Supply): 注意电压和电流的使用范围, 在本标准规定的情况下使用电机, 否则电机性能和电机寿命会下降 (Please do use motors at voltage and current that we specify above, or else motors performance and lifetime can't be guaranteed) .

9-2. 电机安装 (Installation of Motor): 安装螺丝不能过长, 以免损坏卡死电机或损坏电机内部零件, 有通风孔的电机, 安装时不得堵住通风孔, 以免电机散热不好, 温升高导致电机性能下降甚至烧机 (Please do pay the attention on the screws you use to install the motor. It should not to be too mush long, in case of locking of rotator & damages to the internal parts; The ventilative holes of motors (if there are) are not allowed to be blocked, In case of affecting heat-dispersion of motor which causes a declined performance ,or even burnt winding) .

9-3. 搬运电机 (Transportation of Motors): 轻拿轻放, 尽可能利用电机外壳部分 (Handle with care, any intense buping might cause a declined performance) .

9-4. 电机接线 (Wiring of Motors): 正负极不得接反, 红色引线接正极, 黑色引线接负极, 如果接反, 电机旋转方向相反 (Red wires to +Pole, Black wires to pole; Motors will run oppositely if switching the wiring) .

9-5. 过负载 (Overloaded Torque): 尽可能的在我司规定的负载范围内使用, 严禁电机堵转或接近堵转状态过长时间运行。 (Any continuous stalling & continuous near-stalling is not allowed)

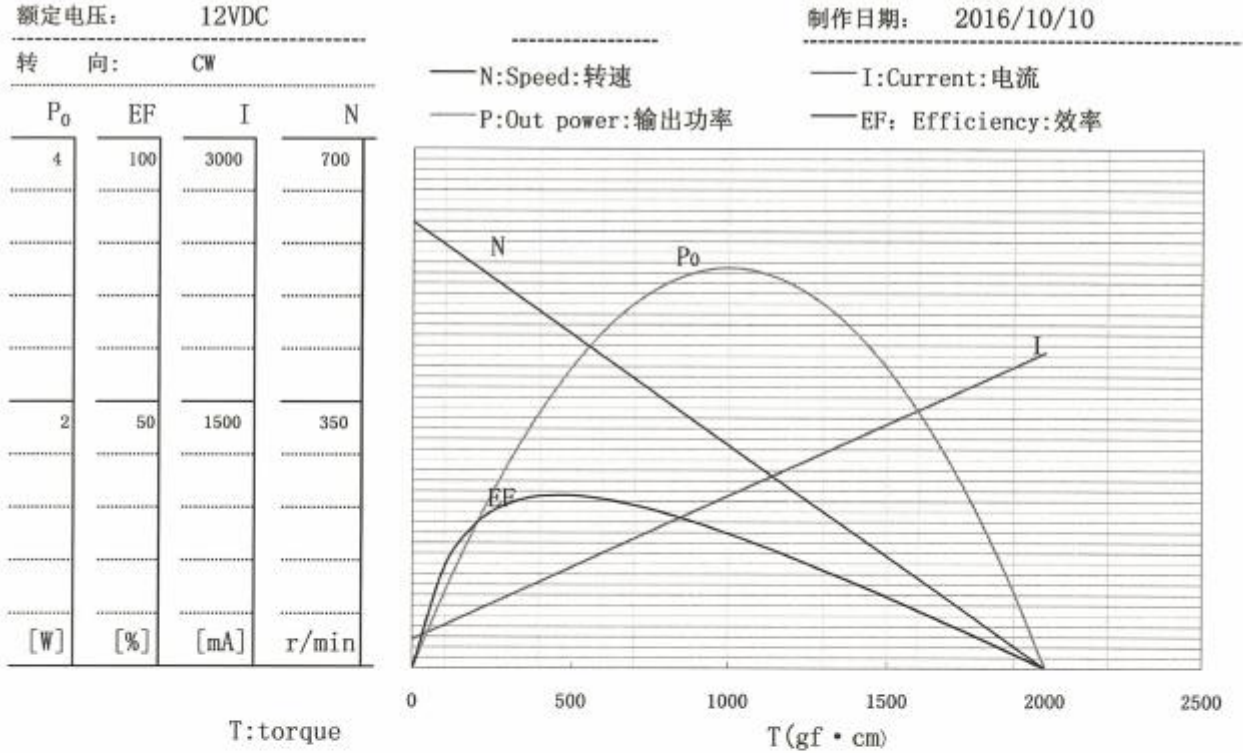
9-6. 电机储存 (Storage conditions of motor):

存储温度 (Storage temp): -20°C-70°C

储存湿度(Storage Humi): 15%-90%RH

避免放置在高温、高湿及有腐蚀性气体的环境中(Keep motors out from environment of high-humi and corrosive gas).

储存期限(Max Storage Time): 6 个月, 超过此期限, 电机性能会有所下降(≤6 months, the motor's performance might be declined after 6 months storage).



| | T(mNm) | (gf. cm) | N(r/min) | I(mA) | P_0 [W] | EF[%] |
|---------------------|--------|----------|----------|-------|-----------|-------|
| No Load...N, I (空载) | 0.00 | 0 | 600.00 | 167 | 0.0 | 0.00 |
| | 4.90 | 50 | 585.00 | 208 | 0.3 | 12.00 |
| | 9.80 | 100 | 570.00 | 250 | 0.6 | 19.52 |
| | 14.71 | 150 | 555.00 | 291 | 0.9 | 24.46 |
| | 19.61 | 200 | 540.00 | 332 | 1.1 | 27.79 |
| | 24.51 | 250 | 525.00 | 374 | 1.3 | 30.03 |
| | 29.41 | 300 | 510.00 | 415 | 1.6 | 31.53 |
| | 34.31 | 350 | 495.00 | 456 | 1.8 | 32.47 |
| Rated...T (负载) | 39.22 | 400 | 480.00 | 497 | 2.0 | 32.99 |
| | 44.12 | 450 | 465.00 | 539 | 2.1 | 33.20 |
| | 49.02 | 500 | 450.00 | 580 | 2.3 | 33.16 |
| | 53.92 | 550 | 435.00 | 621 | 2.5 | 32.91 |
| | 58.82 | 600 | 420.00 | 663 | 2.6 | 32.51 |
| | 63.73 | 650 | 405.00 | 704 | 2.7 | 31.96 |
| | 68.63 | 700 | 390.00 | 745 | 2.8 | 31.31 |
| | 73.53 | 750 | 375.00 | 787 | 2.9 | 30.56 |
| Stop...T (堵转) | 196.08 | 2000 | 0.00 | 1819 | 0.0 | 0.00 |
| Max... P_0 (最大功率) | 98.04 | 1000 | 300.00 | 993 | 3.1 | 25.82 |
| Max...EF (最大效率) | 45.60 | 465 | 460.48 | 551 | 2.2 | 33.21 |

| Rev. | Description | Date |
|------|-------------|------------|
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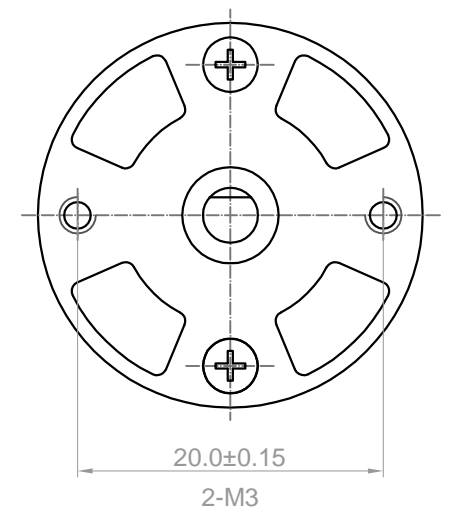
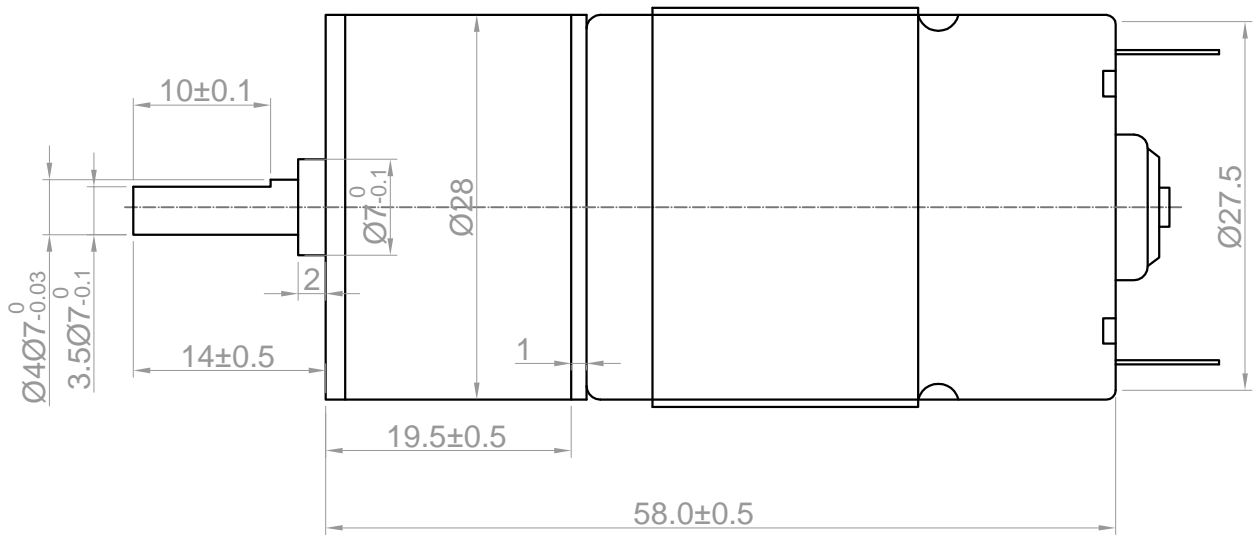
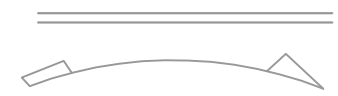
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DIRECTION OF ROTATION



| NO. | Item | Specification | NO. | Item | Specification |
|-----|-----------------|---------------|-----|------------------|---------------|
| 1 | Rated Voltage | 24V | 7 | Insulation Level | E |
| 2 | No Load Current | 240 mA Max | | | |
| 3 | No Load Speed | 600 ±10%RPM | | | |
| 4 | Rated Current | 620 mA Max | | | |
| 5 | Rated Speed | 480 ±10%RPM | | | |
| 6 | On Load | 40 mN·M | | | |

| Drawn | | | Unit: mm | |
|-----------|----------|------------|--|-------------|
| Checked | Lawrence | 11/04/2016 | Kysan Electronics www.kysanelectronics.com info@kysanelectronics.com | |
| Eng Appr. | | | | |
| Mfg Appr. | | | | |
| Q.A. | | | | |
| SKU | 1154006 | | Size :A4 | Weight(Kg): |
| | | | Scale 1:1 | |

8 7 6 5 4 3 2 1