

产 品 承 认 书

(SPECIFICATIONS FOR APPROVAL)

客户 (CUSTOMER) : _____

马达型号 (MODEL) : _____ FYFS130S-0004

产品编号 (NO) : _____ FYRS13007B0**

送样日期 (DATE) : _____ 2024. 3. 6

版本 (EDITION NO) : _____ A/1.0

客户承认 Customer Approved

富元承认 FuYuan Approved

| 承认 APPROVED | 确认 CHECKED | 日期 DATE |
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| | | 王强 | 2024. 3. 6 |

变更 Change

| Date | Revision | Description | Check | Approve |
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| MODEL 型号 FYFS130S-0004 7.4 V | Dongguan FuYuan Motor Technology Co., Ltd. 东莞市富元电机科技有限公司 | EDITION 版本 | A |
| | | EDITION No. 版次 | 1.0 |
| | SPECIFICATION 规格书 | PAGE 页码 | 1/6 |
| | | DATE 日期 | 2024. 3. 6 |
| 1. Standard Operating conditions 标准使用条件 | | | |
| 1.1 Rated Voltage: | | DC 7.4 V constant between motor terminals | |
| 额定电压: | | DC 7.4 V 马达接线终端之稳定电压 | |
| 1.2 Operating Voltage: | | DC 5.0 V~8.0 V constant between motor terminals | |
| 电压使用范围: | | DC 5.0 V~8.0 V 马达接线终端之稳定电压 | |
| 1.3 Shaft-load: | | Measured at 4.0mm from the end of the shaft-100g (max). | |
| 径向力 | | 输出轴端距安装面 4mm 处受径向力 100g (max) | |
| 1.4 Rated load: | | 20g weights | |
| 额定负载 : | | 20g 砝码 | |
| 1.5 Operating Temperature Range: | | -20℃~+65℃ | |
| 使用温度范围: | | -20℃~+65℃ | |
| 1.6 Storage Temperature Range: | | -30℃~+80℃ | |
| 储存温度范围: | | -30℃~+80℃ | |
| 1.7 Position of Motor: | | All position | |
| 马达姿势: | | 全姿势 | |
| 1.8 Motor fastening length: | | Fastening screw length of screw should be 1.1mm(max), from motor Mounting surface. | |
| 马达使用螺钉长度 | | 马达安装面以下、不能超过 1.1mm (max) | |
| 2. Measuring Conditions 测定条件 | | | |
| 2.1 Position of Motor: | | Motor shaft horizontal | |
| 马达姿势: | | 马达轴呈水平固定 | |
| 2.2 Power Source: | | Regulated DC power supply which assures Unquestionable measurement. | |
| 电源供给: | | 确保量测无问题之直流电源供应器 | |
| 2.3 Direction of Rotation: | | CCW When viewed from output shaft side. | |
| 旋转方向: | | 从输出轴端看为逆时针方向 | |
| 2.4 Environment Temperature: | | +10℃~+30℃ | |
| 测试环境温度: | | +10℃~+30℃ | |
| 2.5 Environment Humidity | | 30%~75%RH | |
| 测试环境湿度: | | 30%~75%RH | |
| If judgment is questionable, measurement is to be made in accordance with JIS standard testing conditions (20±2℃, 65%±5%RH) 。 | | | |
| 如果测试结果有疑问, 则按 JIS 标准 (20±2℃, 65%±5%RH) 。 | | | |

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| | | DATE 日期 | 2024. 3. 6 |
| 3. Electrical Characteristics 电气特性 | | | |
| 3.1 No-Load Current: 160mA (max) 无负载电流: 160mA (max) | | | |
| 3.2 No-Load Speed: 10000±10% (rpm) 无负载转速: 10000±10% (rpm) | | | |
| 3.3 Rated-Load Current: 500mA (max) 负载电流: 500mA (max) | | | |
| 3.4 Rated-Load Speed: 7500±10% rpm 负载转速: 7500±10% rpm | | | |
| 3.5 No-load Starting Voltage: 2.5 V (max) 空载起动电压: 2.5 V (max) | | | |
| 3.6 Stall Current: 1.3 A (min) 堵转电流: 1.3 A (min) | | | |
| 3.7 Stall Torque 74g-cm (min) Calculate by two points method 堵转力矩: 74g-cm (min) 依两点法算出 | | | |
| 3.8 Motor Resistance: Exposed to 20°C/Resistance 4.7Ω (REF) 马达端子阻抗: 在 20°C 时, 其阻值为 4.7Ω (REF) | | | |
| 4. Mechanical Specification 机械特性 | | | |
| 4.1 Shaft End Play: 0.02-0.40 mm 轴向间隙 0.02-0.40 mm | | | |
| 4.2 Oscillator height: 6.0±0.4 mm 轴伸长: 6.0±0.4 mm | | | |
| 4.3 Insulation Resistance: 1.0MΩ (min) (Between either terminal 绝缘阻抗: and housing at100V DC.) 1.0MΩ (min) 任意端子与机壳之间电压 DC100V | | | |
| 4.4 Dielectric Strength Between motor housing and supply DC200V 绝缘耐压: 50~60HZ) for 1S. Trip Current:0.5mA (max) DC200V (50~60HZ) , 1 秒加于金属外 壳与马达出线端漏电电流应不大于 0.5mA。 | | | |

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| | | DATE 日期 | 2024. 3. 6 |

4. Mechanical Specification 机械特性

- 4.5 Configuration:

外观:
- As specified in outline drawing.
依图示规格
- 4.6 Weight:

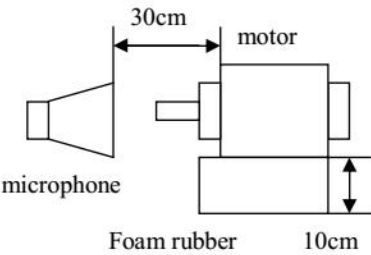
重量:
- About22. 5g.
约 22.5g
- 4.7 Life test:

寿命试验
- Rated voltage 7.4V, ON load , ambient temperature 25 + 5 C, Under the condition of humidity65% + 10%RH, , continuous operation of 350hour MIN.

额定电压 7.4V，无负载，环境温度 25±5℃
，湿度 65%±10%RH 条件下，连续运转 350 MIN 小时。

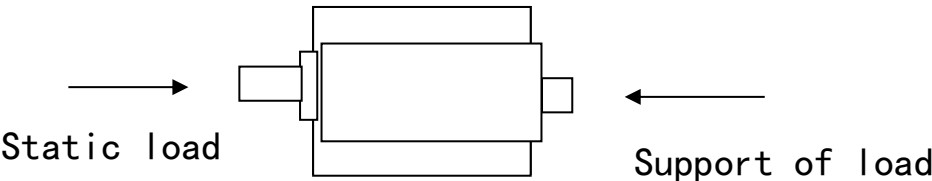
- 4.8 Mechanical Noise:

机械噪音:
- 75dB(max.)with following condition.
At rated voltage and no-load,
Ground noise: 26dB(max)
在额定电压、空载条件下，噪音<75 分贝，
背景噪音<26 分贝。 。



- 4.9 Shaft-load:

轴向耐压
- 10Kg (max)
10Kg (max)
Direction of static load and support of Load as shown below.
静态负荷方向并支撑后端底部。



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| | | DATE 日期 | 2024. 3. 4 |

5. Motor General instructions & Notes 马达使用时注意事项

- 5.1 To motor have corrosively harmful gas (for example: sulfur yellow, do glue, silica gel, etc. wink), produce place, environment should avoid , in order to prevent motor outer cover, end son and other metal part from is it corrode to oxidize, Especially organization, working environment use silica gel, To volatilize apt to form SiO₂ lead to the fact the reversing device contact obstacle of the motor silica gel, connect place impedance to increase sharply, keep in touch and open a way badly.
- 对马达具腐蚀性有害气体（例如：硫磺、瞬干胶、矽胶等），产生场所、环境应避免，以防止马达外壳、端子及其它金属零件被氧化腐蚀，特别是机构、工作环境使用了矽胶，矽胶的挥发容易形成 SiO₂造成马达换向器接点障碍，接触阻抗急剧增大，接触开路不良。
- 5.2 Motor mounting and in cause of using adhesives, please pay attention not to flow them into bearing. Avoid point.
- 装配马达时，使用接著剂时，应该避免注入轴承与轴心处，以防止卡死不转动。
- 5.3 When pressing gears, rollers, or other parts on the axis, on the other side, the back cover needs to be supported by a harness to prevent deformation and damage of the back cover and affect rotor rotation.
- 压入齿轮、滚轮或其他零件于轴心时，在另一侧，后盖需用治具顶住支撑处，防止后盖变形与损坏并影响转子转动。
- 5.4 There are occasions when the Internal resistance of the motor driving power source (which Contains an electrical circuit) In instances where there is a low input of voltage to the motor The Internal resistance of the power source is large which may well result in an inferior after a Short time , conversely in instances where high cyclic voltages are applied. this internal Resistance is small and the motor life span is shortened. When the temperature deviates from the normal room temperature as is the case in low and high temperature situations, please note the conditions.
- 在某些使用状态，驱动马达所使用的电源供应器之内电阻也会影响马达的寿命，如马达之驱动为低电压之电源时，而内电阻过大，导致马达远不能达到预期的效能与特性，相反的情况，如马达之驱动为高电压之电源时，或常切换不同之驱动电压时，内电阻过小时，会使马达的寿命缩短。在周遭温度与一般标准室温有偏差时，尤其是过高或过低温时，请特别注意电源及其内电阻的改变。
- 5.5 Motor life may be affected adversely by heavy radial load such as produced by rotating eccentric Cams. etc and also by vibration given from outside.
- Do check over such negative factors by testing the motors to the actual operating conditions in Your application products .
- 当有相当的轴芯径向的压力，如轴芯上加装偏心轮，或操作环境有相当的振动时，马达的寿命会受到严重的影响。在此情况下，马达的寿命必须由实际操作的数据为依据。
- 5.6 If when mounting the motor and assembling the unit, equipment which emits ultrasonic waves is Used there is a danger that some of the internal parts of the motor might be damaged so please Take care.
- 如果贵公司装置吾司马达或组立贵公司产品时，所用设备、机械会发出超音波时，请特别注意，超音波有可能对马达内部零件造成损害。
- 5.7 DON' T store motors under environmental conditions of high temperature and extreme humidity. DON' T keep them also in an atmosphere where corrosive gas may be present. as it may result in malfunction.
- 请勿将马达储存於高温或高湿度的环境下，请勿将马达储存於有腐蚀性气体的环境下，这些环境都会使马达损坏，无法正常使用。

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| | | DATE 日期 | 2024. 3. 6 |
| <p>5.8 Ambient and operating temperatures exert an affect more or less on motor performance and life. Do pay particular attention to the surroundings when it is not and damp. If I department motor at expensive department place time exceed half year later again usage, Creation of correspond a quality problem, I department don't undertake a responsibility, please special pay attention to usage this motor.</p> <p>周遭环境及操作温度会对马达的特性与寿命有所影响。若吾司马达在贵司放置时间超过半年以后再使用，所产生的相应品质问题，吾司不承担责任，请特别留心使用此马达。</p> <p>5.9 when press fitting a pulley .gear etc., onto the motor output shaft, always support the shaft at t Other end or its retaining metal pad in a proper and correct way.</p> <p>如果贵司需要将齿轮、滑轮等零件压入吾司马达的轴芯时，请一定要适当的正确的支撑轴芯的另一端或马达的后盖及其凸起。</p> <p>5.10 When soldering ,BE SURE to finish your work quickly so as not to develop plastic deformation around the motor terminals nor to give them any forced bend or in ward depression .In doing so, special care must be taken mot to allow solder debris and flux to spatter into motors and precautionary measures should be taken if necessary. by covering up all the nearby holes and apertures. Any motors having snap-in terminals must also be attended carefully so as not to get flux in along the terminals, as it may cause failure in electrical conduction.</p> <p>如果贵公司组立贵司产品时，有焊接的工作，请务必将马达上所有的贯穿孔间隙都覆盖好，不能使焊渣、助焊剂、烟雾等有机会进入马达. 尤其在焊接马达的连接线或端子时，要特别注意，焊接要尽快完成，否则，线材或端子周遭的塑胶会产生变化. 其他预防措施，也要尽量完善，以免造成马达的损害. 请务必将马达的连接线或端子上残留的助焊剂清除，否则在导电时会有异常状况及损害。</p> <p>5.11 DON' T leave motor shaft locked while power is applied, as even a short-time lock-up may cause excess heat build up resulting in burning damage to the motor depending on its specifications. 请务必注意，任何状况下都不可将马达的轴芯锁死，当马达轴芯锁死时，会产生高热，不但马达本身会损坏，也会使周遭易燃物酿成灾害。</p> <p>For any further question or information, please don' t hesitate to contact with us, We will be Pleased to assist you.</p> <p>以上所述之事项，若有任何疑问或未详细之处，请尽速与我方联系，我方将会乐意地协助您。</p> | | | |

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| | | DATE 日期 | 2024.3.6 |

6. 外形图 outside drawing

