

电机型号/MODEL:EC60TM4815200-E

版本号: V1.0

| 基本参数/BASIC PARAMETERS                                     |                                                                                                               |                                                    |                                      |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--------------------------------------|
| 额定功率(w):<br>Rated Output(w):                              | 200                                                                                                           | 极数:<br>Number of Poles:                            | 10                                   |
| 额定电压(v):<br>Rated Voltage(v):                             | DC48                                                                                                          | 耐热等级:<br>Vibration Class:                          | F                                    |
| 额定转速(rpm):<br>Rated Speed(rpm):                           | 1500                                                                                                          | 最高转速(rpm):<br>Max. Speed(rpm):                     | 2000                                 |
| 额定电流(Arms):<br>Rated Current(Arms):                       | 5.8±10%                                                                                                       | 瞬时最大电流(Arms):<br>Instantaneous Max. Current(Arms): | 11.6±10%                             |
| 额定扭矩(N.m):<br>Rated Torque(N.m):                          | 1.27                                                                                                          | 瞬时最大扭矩(N.m):<br>Instantaneous Peak Torque(N.m):    | 2.54                                 |
| 线电阻(Ω):<br>Line Resistance(Ω):                            | ±10%(25℃)                                                                                                     | 线电感(mH):<br>Line Inductance(mH):                   | ±20%(25℃)                            |
| 线反电势(V/krpm):<br>Line Back EMF.(V/krpm):                  | 13.4±10%                                                                                                      | 力矩系数(N.m/A):<br>Torque Coefficient(N.m/A):         | 0.22±10%                             |
| 转子惯量(Kg.m²x10⁻⁴):<br>Rotor Moment of Inertia(Kg.m²x10⁻⁴): | 0.58±10%                                                                                                      | 反馈元件:<br>Feedback Component:                       | 磁电增量式/Incremental Encoder,2500PPR    |
| 保持制动器扭矩(N.m):<br>Static Torque (N.m):                     | /                                                                                                             | 保持制动器工作电压(V):<br>Rated Voltage(V):                 | /                                    |
| 绝缘电阻(MΩ):<br>Insulation Resistance(MΩ):                   | DC500V,>20MΩ                                                                                                  | 噪音(dB):<br>Noise(dB):                              | ≤60dB,无异响/NoneSpecial Noise          |
| 工作时间:<br>Time rating.:                                    | 连续<br>Continuous                                                                                              | 振动等级:<br>Vibration Class:                          | V 15                                 |
| 环境温度:<br>/Ambient Temperature:                            | -20~+40℃                                                                                                      | 环境湿度:<br>Ambient Humidity:                         | 20~80%不结露<br>20~ 80% No Condensation |
| 励磁方式:<br>Excitation:                                      | 永磁式<br>Permanent Magnet                                                                                       | 安装方式:<br>Mounting:                                 | 法兰式<br>Flange Method                 |
| 连接方式:<br>Drive Method:                                    | 直接连接<br>Direct Drive                                                                                          | 电机重量(Kg):<br>Weight(kg):                           | 1.35                                 |
| 保护方式:<br>Enclosure:                                       | 全封闭, 自冷IP54(IP65可选)(轴贯通部分除外)<br>Totally Enclosed, Self-cooled, IP54(IP65 optional) (except for shaft opening) |                                                    |                                      |
| 旋转方向:<br>Rotation Direction:                              | 从电机轴伸端看逆时针方向旋转(CCW)<br>Counterclockwise rotation(CCW)                                                         |                                                    |                                      |

※额定转矩表示安装在200x200x6的铝制散热板上且在环境温度40℃时的连续容许转矩值。/Rated torque is the continuous allowable torque at 40℃ with an Al heatsink of 200x200x6.

连接器/CONNECTORS

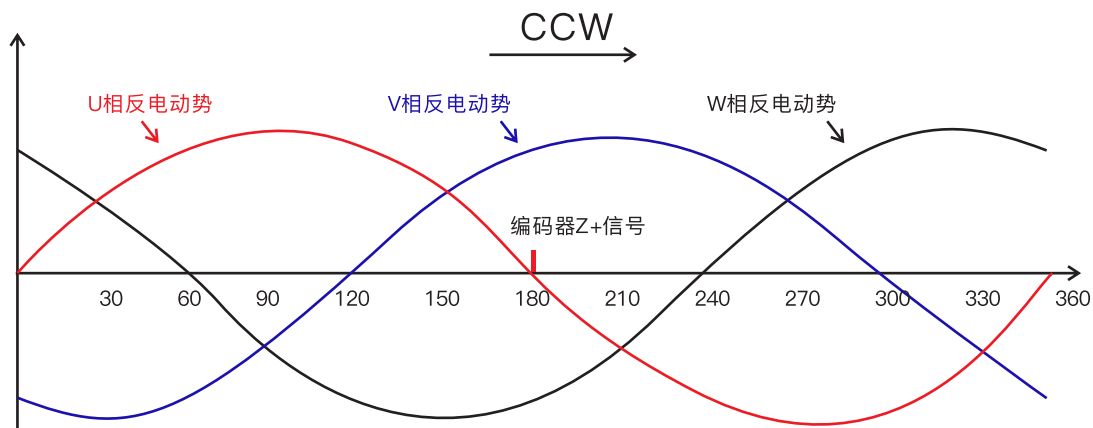
动力插座/Power Line Socket

|                      |    |   |   |   |
|----------------------|----|---|---|---|
| 颜色<br>colour         | 黄绿 | 红 | 蓝 | 黑 |
| 信号引线<br>Signal leads | PE | U | V | W |

编码器插座/Encoder Socket(DB15 PIN 公头)

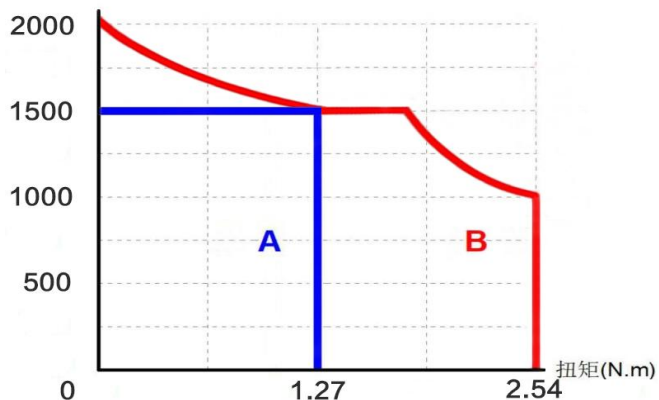
|                        |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------------------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 插座编号<br>Socket Numbers | 1 | 2 | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 颜色<br>colour           |   |   | 棕  | 红  | 黑  | 灰  | 黄黑 | 黄  | 白  |    | 绿黑 | 绿  | 蓝黑 | 蓝  |    |
| 信号引线<br>Signal leads   |   |   | U+ | 5V | 0V | V+ | Z- | Z+ | W+ |    | B- | B+ | A- | A+ |    |

### 编码器零点与电机相位关系



### 转矩—转速特性/TORQUE-SPEED CHARACTERISTICS

转速(rpm)

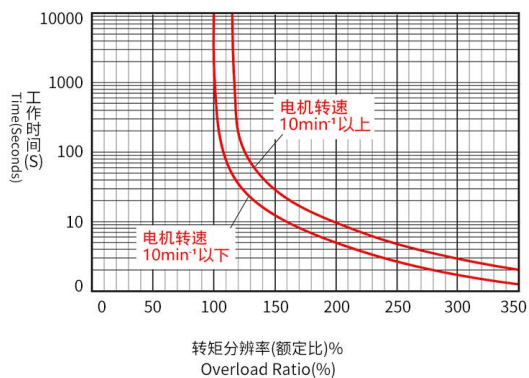


A:连续使用区域/Continuous Duty Zone

B:反复使用区域/Intermittent Duty Zone

### 过载特性曲线/OVERLOAD CHARACTERISTICS

工作时间在电机环境温度40℃以及热起动的条件下设定/The characteristics is measured in the warm-boot conditions at 40℃

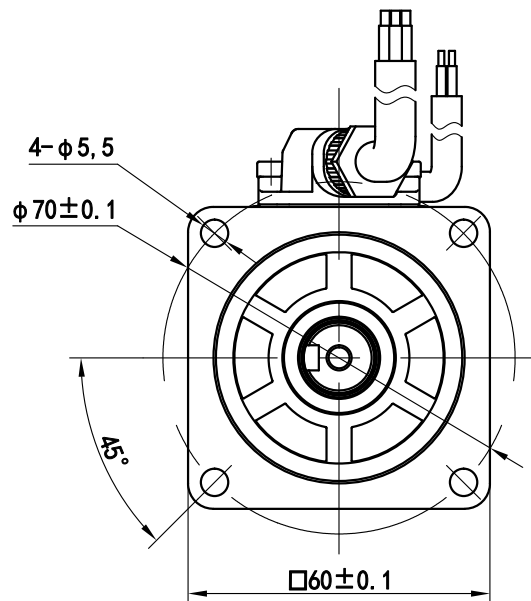


※1:上述过载特性并不保证100%以上输出的连续使用/  
The above characteristics do not supply 100% output for continuous running;

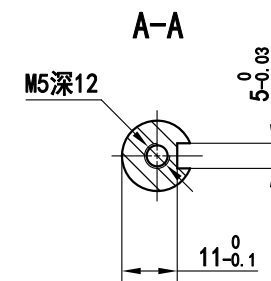
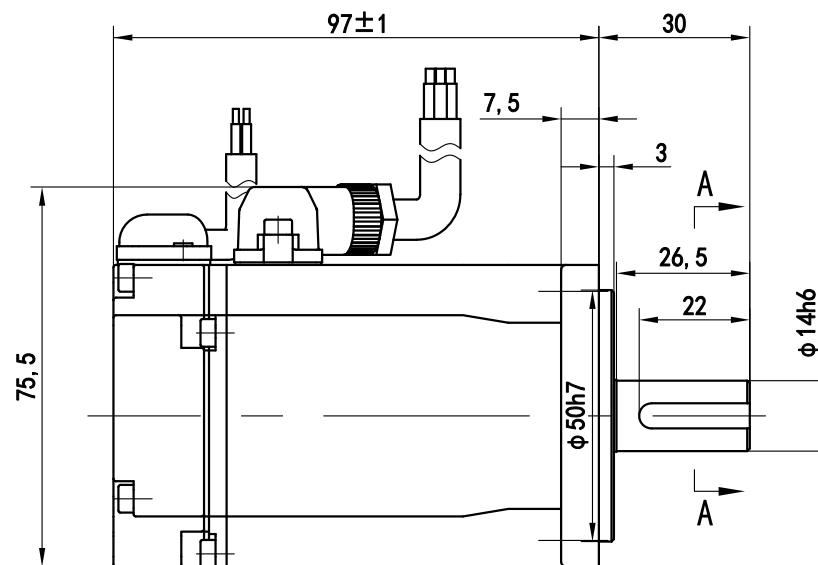
※2:使用时, 请确保有效转矩在“转矩—转速特性”的连续使用范围内/  
Please make sure that the effective torque is in the range of T-N characteristics' continuous duty zone.

※3:由于产品改良或规格变更, 我们会适时对规格书进行更新, 请关注相关信息, 恕不另行通知。/  
Specification are subject to change without notice for ongoing product modification and improvement, please pay more attentions to the

## Front view and mounting



### Side view



**WWW.YANLANMC.COM/WWW.YANLAN.NET**

## DC SERVO MOTOR 直流伺服电机

|               |                   |                                         |            |
|---------------|-------------------|-----------------------------------------|------------|
|               |                   | <div>RoHS COMPLIANT</div> <div>CE</div> |            |
| C             |                   |                                         |            |
| B             |                   |                                         |            |
| A             | 初版/First Edition  |                                         |            |
| 版本<br>Edition | 变更内容<br>Revisions | 设计<br>Designed                          | 日期<br>DATE |



|                |         |            |  |  |                 |      |                |
|----------------|---------|------------|--|--|-----------------|------|----------------|
| 型号<br>Model    | 60#L=97 |            |  |  |                 |      |                |
| 批准<br>Approved | J. Song | 20. 10. 26 |  |  | 材质<br>Material  |      |                |
| 审核<br>Checked  | GB. Y   | 20. 10. 26 |  |  | 公差<br>Tolerance | ±0.2 | No. Sheet      |
| 制图<br>Drawn    | QC. Y   | 20. 10. 26 |  |  | 比例<br>Scale     | 1:1  | 页<br>Sheet 1/1 |