杭州绿天新能源科技有限公司
GREENSKY POWER COMPANY LIMITED

# Approval Sheet

客户名称（Customer）

客户代码（Customer PN）

电机名称（Motor Name） 36割草机器人轮组电机

电机代码（Motor Model）

承认版本（Version） A1

适用阶段（Stage） Production

日期（Date） 2026.2.01

| Department Sign | | |
|---|---|---|
| Design | Checked | Approved |
| | | |
| Customer Suggestion | | |

| | | |
|---|---|---|
| The name of Company | GREENSKY POWER COMPANY LIMITED | Tel:13858933886 |
| Address: | No. 597, Bin'an Road, Changhe Sub-district, Binjiang District, Hangzhou City, Zhejiang Province | |

杭州绿天新能源科技有限公司

GREENSKY POWER COMPANY LIMITED

# SPECIFICATION FOR MOTOR

## 电机规格书

马达型号： MODEL No.： GSBLD36R9D18-36P71K

客户名称： Customer:

| | | |
|---|---|---|
| 制 作:<br>PREPARED BY<br>日期DATE: | 审 核:<br>CHECKED BY<br>日期DATE: | 批 准:<br>APPROVED BY<br>日期DATE: |

# GREENSKY POWER COMPANY LIMITED

SPECIFICATION FOR DC BRUSHLESS MOTOR

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7， 注意事项 Precautions

| | |
|---|---|
| MODEL | GSBLD36R9D18-36P71K |
| VERSION | A01 |
| DC BRUSHLESS MOTOR | Sheet 1 of 6 |

1，变更履历 History of Modification

| Date | rev. | Sheet | Before | After | Design | Approved |
|---|---|---|---|---|---|---|
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2. 适用 Recommended Applications

本规格书为割草机器人用DC马达规格书

This specification is for D.C Brushless Motor for Robotic Lawn Mower

安全规格 Safety standard

电气用品安全法 第一项 Electrical Appliance and Material Safety Law

但是马达单品没有申请安全规定，只是满足规定。

Noted, the motor as a standalone product has not been certified under any specific safety regulations; it is only designed to comply with the relevant requirements.

3. 规格 Specification

| NO. | 项目<br>ITEMS | 规格 SPECIFICATION | |
|---|---|---|---|
| 1 | 马达结构<br>Motor Construction | 内转子电机 Inner rotor motor | |
| 2 | 型号<br>Model | GSBLD36R9D18-36P71K | |
| 3 | 马达型式<br>motor type | 直流无刷电机 BLDC motor | |
| 4 | 相数.极数<br>Phases.Poles | 3相 6极 3Phases 6Ploes | |
| 5 | 额定电压<br>Rated voltage | 18V DC （16～28VDC） | |
| 6 | 马达绝缘等级<br>Motor insulation class | F级<br>Class F | |
| 7 | 旋转方向<br>Direction of rotation | CCW<br>Main direction CCW | 看轴伸端<br>When viewed from the Shaft |
| 8 | 重量<br>Weight | 520±10g（Include Gearbox） | |

4. 特性 Characteristics

4.1.电气特性 Electrical Characteristics

| NO. | 项目 ITEMS | 规格 SPECIFICATION | 备注 NOTE |
|---|---|---|---|
| 1 | 绝缘耐压<br>Insulation withstand voltage | 300V AC /60 (sec)<br>泄露电流≤5（mA） | 测试马达线圈与机壳之间<br>Insulation withstand voltage test between the motor windings and the housing.<br>泄露电流≤5（mA）<br>Leakage Current ≤5（mA） |
| 2 | 绝缘电阻<br>Insulation resistance | 10（MΩ）MIN | DC250(V)测试马达线圈与机壳之间<br>DC250(V)test between the motor windings and the housing. |

4.2 产品特性和技术参数 Product characteristics and parameters

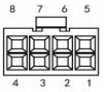
| 序号 NO. | 项目 Ltem | 测试条件 Condition | 参数指标 Parameters |
|---|---|---|---|
| 1 | No-Load Speed<br>空载转速 | Under dedicated Controller<br>在专用控制器下测试 | 51.3±10%<br>RPM |
| 2 | No-Load Current<br>空载电流 | Under dedicated Controller<br>在专用控制器下测试 | 0.32A Max. |
| 3 | Rated Speed<br>额定转速 | Under dedicated Controller<br>在专用控制器下测试 | 34.3±10% rpm |
| 4 | Rated Torque<br>额定转矩 | Under dedicated Controller<br>在专用控制器下测试 | 2.53 N.m |
| 5 | Rated Current<br>额定电流 | Under dedicated Controller<br>在专用控制器下测试 | 1.19A Max. |
| 6 | Rated Power<br>额定功率 | Under dedicated Controller<br>在专用控制器下测试 | 9W |
| 7 | Reduction Ratio<br>减速比 | Theoretical Value<br>理论计算值 | 71 |
| 8 | Line resistance<br>线电阻（Ω） | Measure between Lines<br>端子阻抗（常温 25° 常湿） | 4.95±10% Ω |
| 9 | Line Indatance<br>线电感（mH） | Measure between Lines<br>端子电感（常温 25° 常湿） | 1.93±5% mH |

5. 机械要求 Mechanical specification

| NO. | 项目<br>ITEMS | 条件<br>CONDITION | 判定标准<br>CRITERION |
|---|---|---|---|
| | Configuration<br>外观尺寸 | Verner calipers<br>游标卡尺 | As specified in drawing<br>参考相关图纸 |
| | Appearance<br>外观 | Visual Inspection<br>目测 | No obvious deformation or cracks allowed.<br>不得有明显的变形、裂缝、 |

## 6.1 实物图&线序 Actual photo&Wire Sequence

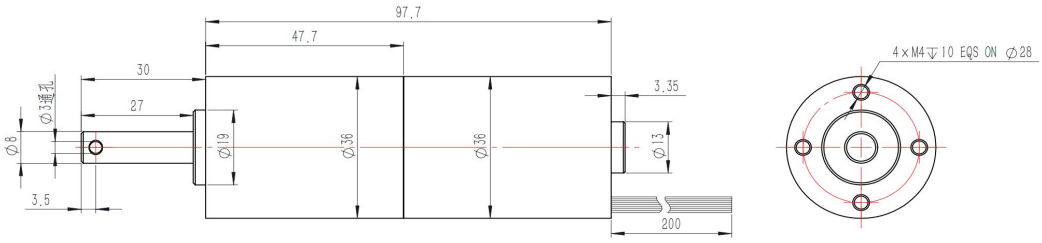




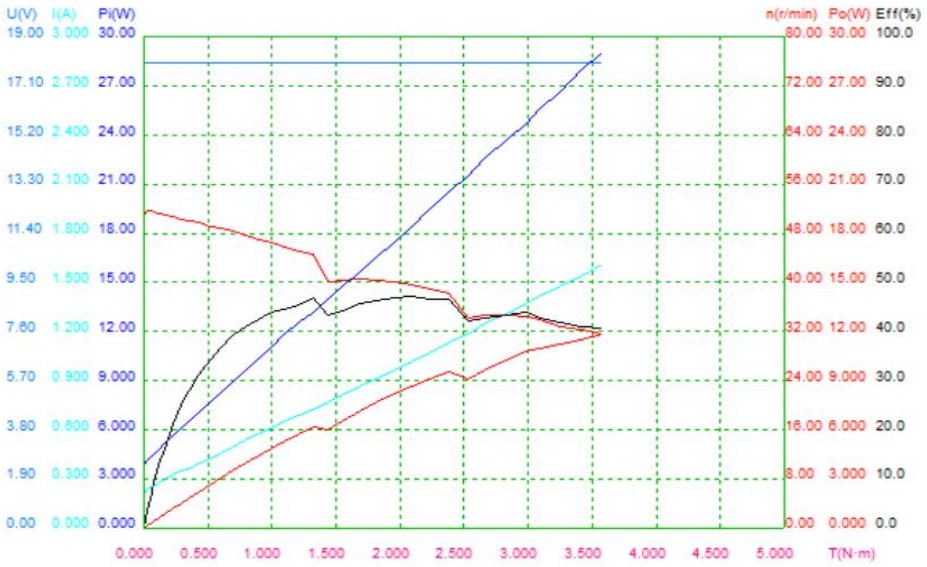

Connector: 5557-8Y

| Pin | Color | Functions | Type |
|---|---|---|---|
| 6 | Green | W | UL1332 24AWG |
| 7 | Blue | V | |
| 8 | Yellow | U | |
| 3 | Green | HW | UL1332 28AWG |
| 4 | Blue | HV | |
| 2 | Yellow | HU | |
| 5 | Black | GND | |
| 1 | Red | VCC-5V5 | |

## 6.2 外形图 Drawing




## 6.3 外特性 Characteristic & Performance




| 状态点 | 电压（V） | 电流（A） | 功率（W） | 功率因数 | 频率(HZ) | 转速 (r/min) | 转矩 (N·m) | 输出功率 (W) | 效率 (%) |
|---|---|---|---|---|---|---|---|---|---|
| 空载点 | 18.03 | 0.222 | 3.960 | -- | -- | 51.30 | 0.007 | 0.038 | 1.0 |
| 堵转点 | * | * | * | * | * | * | * | * | * |
| 额定点 | 18.00 | 1.188 | 21.49 | -- | -- | 34.30 | 2.530 | 9.087 | 42.3 |

7.使用上的注意事项 Precautions for Use

7.1包装注意事项：Packing precautions

a.电机在流转中不能挤压受力，禁止电机磕碰，电机应平放.The motor must not be subjected to crushing or excessive force during handling and transportation. Avoid any impacts or collisions. The motor should be stored in a horizontal position.

b.电机珍珠棉托盘放置及转运.Placement and Transportation of the Motor on EPE (Pearl Cotton) Trays

c.包装箱要轻拿轻放.Handle the packaging box with care.

7.2电机储存环境 Motor run and storage environment

| NO. | 项目<br>ITEMS | 规格<br>SPECIFICATION | 备注<br>NOTE |
|---|---|---|---|
| 1 | 动作条件<br>Operating condition | 干球温度：-5（℃）～ +40（℃）<br>相对湿度： 10（%）～ 85(%)<br>Dry bulb tenp: -5（℃） ～ +40（℃）<br>Relative humidity: 10（%）～ 85(%) | 不结露<br>No Condensation |
| 2 | 保存<br>Storage condition | 干球温度：-20（℃）～ +70（℃）<br>相对湿度： 10（%）～ 85(%)<br>Dry bulb tenp: -20（℃）～ +70（℃）<br>Relative humidity: 10（%）～ 85(%) | 不结露<br>No Condensation |