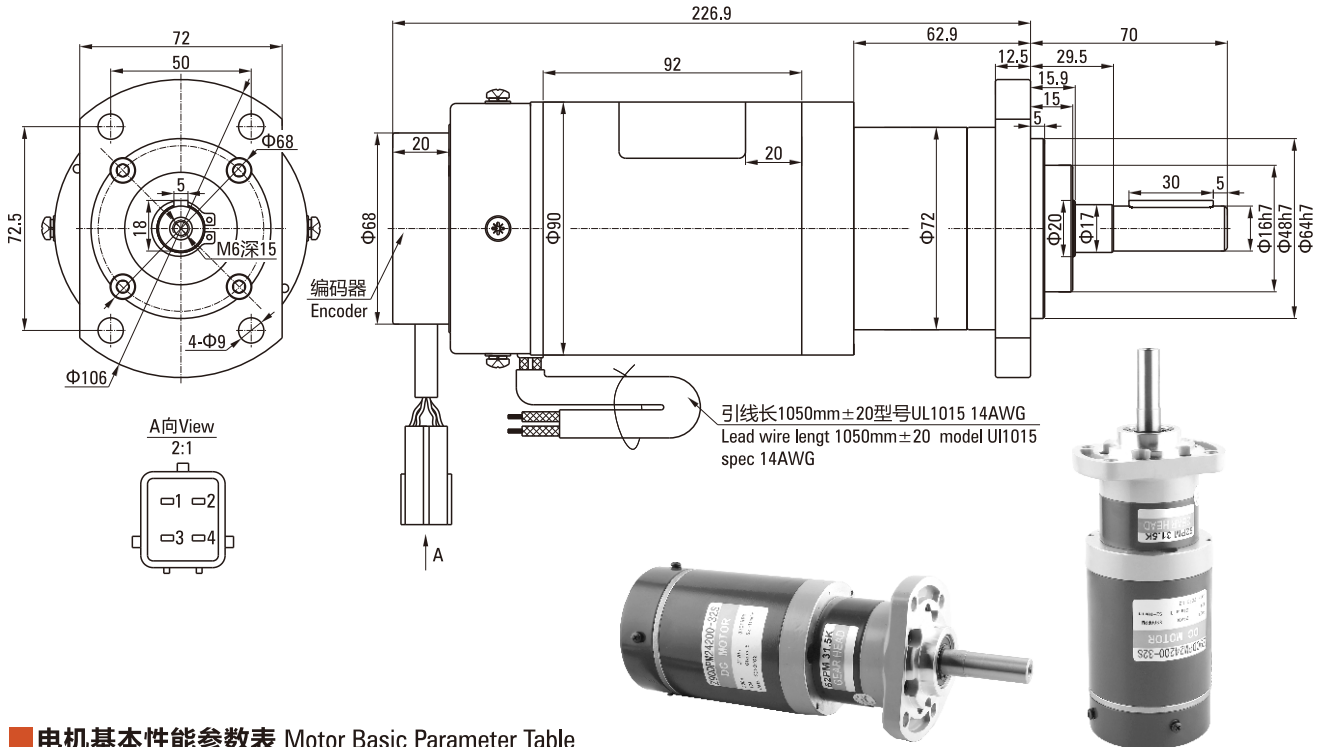


# 90DP+72PN助力转向 90DP + 72PN POWER STEERING

ZDXB-DC20201118



电机基本性能参数表 Motor Basic Parameter Table

|                            |                 |                                 |                   |
|----------------------------|-----------------|---------------------------------|-------------------|
| 型号 Type                    | Z90DPN24200-32S | 齿轮箱与电机输出轴旋向 Gearbox direction   | 相同 Same as motor  |
| 额定电压 Rated voltage         | 24V DC          | 轴承型式 Bearing type               | 滚珠轴承 Ball bearing |
| 额定功率 Rated power           | 200W            | 齿轮箱结构 Gearbox structure         | 一体式 Integrated    |
| 额定电流 Rated current         | 13.0A ± 10%     | 传动效率 Efficiency                 | 81%               |
| 额定转速 Rated speed           | 3200rpm ± 10%   | 齿轮箱可承受最大力矩 Gearbox rated torque | 12.1N.m           |
| 额定力矩 Rated torque          | 0.597N.m        | 齿轮箱瞬间可承受最大力矩 Gearbox max torque | 2倍于最大 2 x rated   |
| 空载电流 Noload current        | ≤ 3.5A          | 使用环境温度 Ambient temperature      | -10°C ~ +40°C     |
| 空载转速 Noload speed          | 3600rpm ± 10%   | 噪音 Noise                        | < 60dB(L=100cm)   |
| 工作制 Work duty              | S2(10min)       | 电机接线图 Wire diagram              |                   |
| 绝缘电阻 Insulation resistance | > 20MΩ          |                                 |                   |
| 电刷寿命 Brush life            | 2000h           |                                 |                   |
| 电气强度 Electrical strength   | 660V/S          |                                 |                   |
| 绝缘等级 Insulation class      | B               |                                 |                   |
| 防护等级 Protection grade      | IP20            |                                 |                   |
| 齿轮箱规格 Gearbox spec         | 72PN24.975K     |                                 |                   |
| 减速级数 Reduction stage       | 2               |                                 |                   |

## 技术要求 Technical Requirement

- 电机基本参数如图纸中的铭牌数据；  
Motor basic parameters are as nameplate in drawing shows;
- 红色引线接正和黑色引接负，从轴的伸出端看电机顺时针转，引线位置对调，电机的转向相反；  
The red lead is connected to the positive and the black lead is connected to the negative. Seen from the brake installation end, the drive wheel turns clockwise. When the lead position is reversed, the drive wheel turns in the opposite direction;
- 电刷工作寿命为2000个小时；  
The working life of the brush is 2000 hours;
- 引出线长度：1050mm ± 20，型号：UL1015，规格：AWG14、铭牌粘贴；  
Lead wire lengt: 1050mm ± 20, model: UI1015, spec: AWG14, the nameplate is sticky;
- 减速器配合螺钉要紧凑，固定前需涂抹螺纹防松胶；  
The reducer should be compact with screws, and threadproof anti-rosin should be applied before fixation;
- 电机配合用定位销和减速器表面配合用定位销均在光电机和整机装配测试完成之后。  
Screws of gearbox and motor should be firmly tightened and threaded glue should be appied before tightening.

## 64位编码器接线定义

### 64-bit Encoder Wiring Definition

| 序号 No. | 颜色 Color  | 功能 Function |
|--------|-----------|-------------|
| 1      | 红色 Red    | VCC+5V      |
| 2      | 黑色 Black  | GND         |
| 3      | 蓝色 Blue   | A相 Phase    |
| 4      | 黄色 Yellow | B相 Phase    |