

## BO2814N2B | 外转子无传感器 Outer Rotor, Sensorless

应用领域：无人机、航模等驱动领域。

Applications: UAV, aeromodelling, etc.

### 主要技术指标 | Characteristics

|                    |                                        |                  | 01-153-12.0 | 02-153-24.0             | 03-153-36.0 |
|--------------------|----------------------------------------|------------------|-------------|-------------------------|-------------|
| 1 电压               | Voltage                                | V                | 12.0        | 24.0                    | 36.0        |
| 2 端电阻              | Terminal resistance                    | $\Omega$         | 0.50        | 1.70                    | 3.77        |
| 3 空载转速             | No-load speed                          | rpm              | 15300       | 15300                   | 15300       |
| 4 空载电流             | No-load current                        | A                | 0.26        | 0.12                    | 0.12        |
| 5 堵转转矩             | Stall torque                           | mNm              | 179         | 207                     | 209         |
| 6 堵转电流             | Stall current                          | A                | 24.2        | 14.1                    | 9.6         |
| 7 额定转矩             | Nominal torque                         | mNm              | 34.1        | 35.0                    | 30.6        |
| 8 额定转速             | Nominal speed                          | rpm              | 9330        | 10390                   | 10980       |
| 9 额定电流             | Nominal current                        | A                | 4.8         | 2.4                     | 1.5         |
| 10 最大输出功率          | Max. output power                      | W                | 71          | 83                      | 84          |
| 11 最大效率            | Max. efficiency                        | %                | 80.4        | 82.0                    | 78.8        |
| 12 反电势常数           | Back-EMF constant                      | mV/rpm           | 0.8         | 1.5                     | 2.3         |
| 13 转矩常数            | Torque constant                        | mNm/A            | 7.5         | 14.8                    | 22.2        |
| 14 KV 值            | KV Value                               | rpm/V            | 1268        | 642                     | 425         |
| 15 转速 / 转矩斜率       | Speed/torque gradient                  | rpm/mNm          | 85.2        | 74.5                    | 73.0        |
| 16 转子惯量            | Rotor inertia                          | gcm <sup>2</sup> | 12          | 12                      | 12          |
| 17 重量              | Weight                                 | g                | 21          | 21                      | 21          |
| 18 热阻 (机壳 - 环境)    | Thermal resistance housing-ambient     | K/W              |             | 2.5                     |             |
| 19 热阻 (线圈 - 机壳)    | Thermal resistance winding-housing     | K/W              |             | 2                       |             |
| 20 热时常数 (电机)       | Thermal time constant motor            | s                |             | 180                     |             |
| 21 热时常数 (线圈)       | Thermal time constant winding          | s                |             | 25                      |             |
| 22 工作温度范围          | Operating temperature range            | °C               |             | -40~+120                |             |
| 23 绕组耐温等级          | Thermal class of winding               | °C               |             | 180                     |             |
| 24 轴向间隙            | Axial play                             | mm               |             | 0.014                   |             |
| 25 径向间隙            | Radial play                            | mm               |             | 0.008                   |             |
| 26 动态轴向载荷          | Axial load dynamic                     | N                |             | 5                       |             |
| 27 静态轴向载荷          | Axial load static                      | N                |             | 80                      |             |
| 28 径向载荷 (距安装面 3mm) | Radial load at 3 mm from mounting face | N                |             | 29                      |             |
| 29 极对数             | No. of pole pairs                      |                  |             | 7                       |             |
| 30 轴承              | Bearings                               |                  |             | 2 枚滚动轴承/2 ball bearings |             |
| 31 换向结构            | Commutation                            |                  |             | 无传感器/Sensorless         |             |
| 32 防护等级            | Protection class                       |                  |             | IP 20                   |             |

★可选参数 Options: 导线长度 Lead wires length 轴长 Shaft length 性能 Special coils 齿轮箱 Gearheads 轴承类型 Bearing type

编码器 Encoder 驱动器 Driver

### 外观图 | Outline Drawing

