

## BO2414NB2B | 外转子无传感器 Outer Rotor, Sensorless

应用领域：无人机云台、手持云台。

Applications: UAV gimbals and handheld gimbals.

### 主要技术指标 | Characteristics

|                    |                                        |                  | 02-64-12.0 | 05-80-12.0              |
|--------------------|----------------------------------------|------------------|------------|-------------------------|
| 1 电压               | Voltage                                | V                | 12.0       | 12.0                    |
| 2 端电阻              | Terminal resistance                    | $\Omega$         | 20.0       | 4.3                     |
| 3 电感               | Terminal inductance                    | mH               | 4.50       | 1.3                     |
| 4 空载转速             | No-load speed                          | rpm              | 6400       | 8000                    |
| 5 空载电流             | No-load current                        | A                | 0.04       | 0.09                    |
| 6 堵转转矩             | Stall torque                           | mNm              | 11.6       | 37.4                    |
| 7 堵转电流             | Stall current                          | A                | 0.7        | 2.8                     |
| 8 额定转矩             | Nominal torque                         | mNm              | 6.3        | 12.3                    |
| 9 额定转速             | Nominal speed                          | rpm              | 160        | 4480                    |
| 10 额定电流            | Nominal current                        | A                | 0.4        | 0.9                     |
| 11 最大输出功率          | Max. output power                      | W                | 1.6        | 7.8                     |
| 12 最大效率            | Max. efficiency                        | %                | 57.5       | 67.3                    |
| 13 反电势常数           | Back-EMF constant                      | mV/rpm           | 1.77       | 1.45                    |
| 14 转矩常数            | Torque constant                        | mNm/A            | 17         | 13.9                    |
| 15 转速 / 转矩斜率       | Speed/torque gradient                  | rpm/mNm          | 672        | 214                     |
| 16 转子惯量            | Rotor inertia                          | gcm <sup>2</sup> | 7.2        | 7.2                     |
| 17 重量              | Weight                                 | g                | 15         | 15                      |
| 18 热阻 (机壳 - 环境)    | Thermal resistance housing-ambient     | K/W              |            | 13.7                    |
| 19 热阻 (线圈 - 机壳)    | Thermal resistance winding-housing     | K/W              |            | 7.6                     |
| 20 热时常数 (电机)       | Thermal time constant motor            | s                |            | 120                     |
| 21 热时常数 (线圈)       | Thermal time constant winding          | s                |            | 12                      |
| 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               |            | 155                     |
| 24 轴向间隙            | Axial play                             | mm               |            | 0.012                   |
| 25 径向间隙            | Radial play                            | mm               |            | 0.08                    |
| 26 动态轴向载荷          | Axial load dynamic                     | N                |            | 1.5                     |
| 27 静态轴向载荷          | Axial load static                      | N                |            | 37                      |
| 28 径向载荷 (距安装面 3mm) | Radial load at 3 mm from mounting face | N                |            | 12                      |
| 29 极对数             | No. of pole pairs                      |                  |            | 6                       |
| 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 霍尔传感器 Hall sensor  
编码器 Encoder 驱动器 Driver

### 外观图 | Outline Drawing

