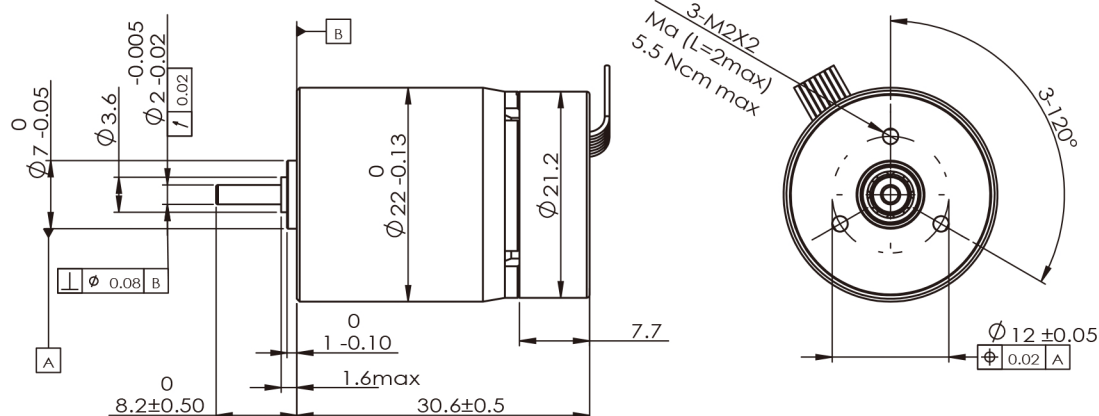




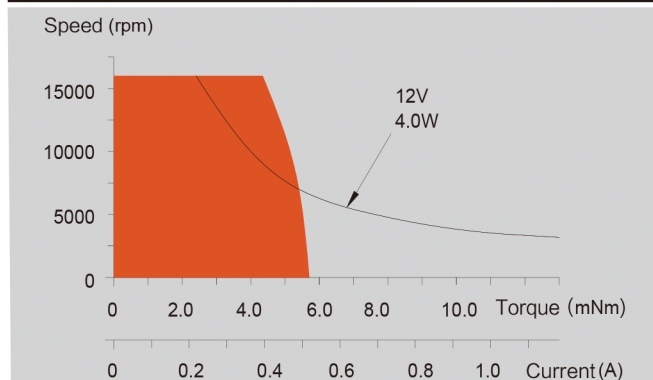
## Motor Data

| 电机型号      | Motor model           |                  |         | SR223106B | SR223109B | SR223112B | SR223118B | SR223124B | SR223136B |
|-----------|-----------------------|------------------|---------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 额定电压    | Nominal voltage       | V                | V       | 6         | 9         | 12        | 18        | 24        | 36        |
| 2 空载转速    | No load speed         | rpm              | Wnl     | 10900     | 11800     | 12000     | 10800     | 12000     | 10800     |
| 3 空载电流    | No load current       | mA               | InI     | 38        | 40        | 24        | 18        | 14        | 12        |
| 4 额定转速    | Nominal speed         | rpm              | Wc      | 6900      | 6200      | 7200      | 6320      | 5136      | 6460      |
| 5 额定转矩    | Nominal torque        | mNm              | Tc      | 5         | 5         | 5         | 5         | 5         | 5         |
| 6 额定电流    | Nominal current       | A                | Ic      | 0.98      | 0.7       | 0.53      | 0.33      | 0.27      | 0.17      |
| 7 输出功率    | Output power          | W                | Pc      | 3.61      | 3.26      | 3.8       | 3.31      | 2.7       | 3.38      |
| 8 堵转转矩    | Stall torque          | mNm              | Tmax    | 14        | 10.38     | 12.36     | 12.1      | 8.55      | 12.4      |
| 9 堵转电流    | Stall current         | A                | Imax    | 2.37      | 1.45      | 1.32      | 0.79      | 0.46      | 0.41      |
| 10 最大效率   | Max. efficiency       | %                | ηmax    | 79        | 78        | 79        | 79        | 42        | 77        |
| 11 线间电阻   | Terminal resistance   | Ω                | Rt      | 2.2       | 6.2       | 9.1       | 22.8      | 52        | 87.6      |
| 12 力矩系数   | Torque constant       | mNm / A          | Kt      | 5.12      | 7.15      | 9.38      | 15.27     | 18.52     | 30.28     |
| 13 速度常数   | Speed constant        | rpm / V          | Kn      | 1866      | 1336      | 1018      | 625       | 516       | 315       |
| 14 速度转矩比  | Speed torque gradient | rpm / mNm        | Δn / ΔT | 781       | 1114      | 944       | 896       | 1372      | 868       |
| 15 线间电感   | Terminal inductance   | mH               | L       | 0.09      | 0.1       | 0.209     | 0.87      | 1.12      | 2.99      |
| 16 转子转动惯量 | Rotor inertia         | gcm <sup>2</sup> | J       | 2.74      | 2.74      | 2.74      | 2.84      | 2.62      | 2.33      |

## Specifications

|                                    |          |             |
|------------------------------------|----------|-------------|
| 1 ambient temperature              | Ta       | -20~+65°C   |
| 2 Max.winding temperature          | Tcoilmax | +85°C       |
| 3 Max.speed                        | Nmax     | 12000rpm    |
| 4 axial play                       | Δt       | 0.05~0.15mm |
| 5 number of pole pairs             | p        | 1           |
| 6 number of commutator segments    |          | 5           |
| 7 weight of motor                  | Wt       | 50g         |
| 8 Max.axial load(dynamic)          |          | 3N          |
| 9 Max.force for press fits(static) |          | 45N         |
| 10 Max.radial load,4mm from flange |          | 12N         |

## Operating Range



## Terminal definitions

|   |       |            |                |
|---|-------|------------|----------------|
| 1 | Red   | Motor +    | Magnet Encoder |
| 2 | 1     | +5V        | 3 Channel      |
| 3 | 2     | GND        | 1000CPT        |
| 4 | 3     | Channel A- |                |
| 5 | 4     | Channel A+ |                |
| 6 | 5     | Channel B- |                |
| 7 | 6     | Channel B+ |                |
| 8 | 7     | Channel Z- |                |
|   | 8     | Channel Z+ |                |
|   | Black | Motor -    |                |