

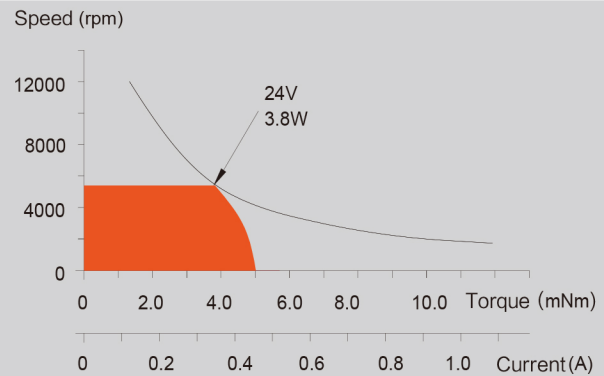
Motor Data

| | Motor model | | | DR222406B | DR222409B | DR222412B | DR222418B | DR222424B | DR222436B |
|----|-----------------------|------------------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 | Nominal voltage | V | V | 6 | 9 | 12 | 18 | 24 | 36 |
| 2 | No load speed | rpm | Wnl | 10900 | 11800 | 12000 | 10800 | 12000 | 10800 |
| 3 | No load current | mA | InI | 38 | 40 | 24 | 18 | 14 | 12 |
| 4 | Nominal speed | rpm | Wc | 6900 | 6200 | 7200 | 6320 | 5136 | 6460 |
| 5 | Nominal torque | mNm | Tc | 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | Nominal current | A | Ic | 0.98 | 0.7 | 0.53 | 0.33 | 0.27 | 0.17 |
| 7 | Output power | W | Pc | 3.61 | 3.26 | 3.8 | 3.31 | 2.7 | 3.38 |
| 8 | Stall torque | mNm | Tmax | 14 | 10.38 | 12.36 | 12.1 | 8.55 | 12.4 |
| 9 | Stall current | A | Imax | 2.37 | 1.45 | 1.32 | 0.79 | 0.46 | 0.41 |
| 10 | Max. efficiency | % | η_{max} | 79 | 78 | 79 | 79 | 42 | 77 |
| 11 | Terminal resistance | Ω | Rt | 2.2 | 6.2 | 9.1 | 22.8 | 52 | 87.6 |
| 12 | Torque constant | mNm / A | Kt | 5.12 | 7.15 | 9.38 | 15.27 | 18.52 | 30.28 |
| 13 | Speed constant | rpm / V | Kn | 1866 | 1336 | 1018 | 625 | 516 | 315 |
| 14 | Speed torque gradient | rpm / mNm | $\Delta n / \Delta T$ | 781 | 1114 | 944 | 896 | 1372 | 868 |
| 15 | Terminal inductance | mH | L | 0.09 | 0.1 | 0.209 | 0.87 | 1.12 | 2.99 |
| 16 | Rotor inertia | gcm ² | J | 2.74 | 2.74 | 2.74 | 2.84 | 2.62 | 2.33 |

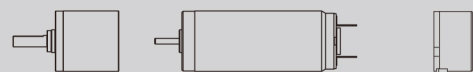
Specifications

| | | | |
|----|------------------------------------|------------|--------------|
| 1 | ambient temperature | Ta | -20~+65 °C |
| 2 | max. winding temperature | Tcoilmax | +125 °C |
| 3 | max. speed | Nmax | 13200 rpm |
| 4 | axial play | Δt | 0.05-0.15 mm |
| 5 | number of pole pairs | 2p | 1 |
| 6 | number of commutator segments | | 5 |
| 7 | weight of motor | Wt | 44 g |
| 8 | Max. axial load (dynamic) | | 3N |
| 9 | Max. force for press fits (static) | | 45N |
| 10 | Max. radial load, 4 mm from flange | | 12N |

Operating Range



SMJ Modular System



Planetary Gearhead
 Model number P22H
 Outside Diameter $\phi 22$
 Torque 0.018~1.2N·m
 See page 49

Encoder
 1000 CPT
 3 Channels
 see page 46