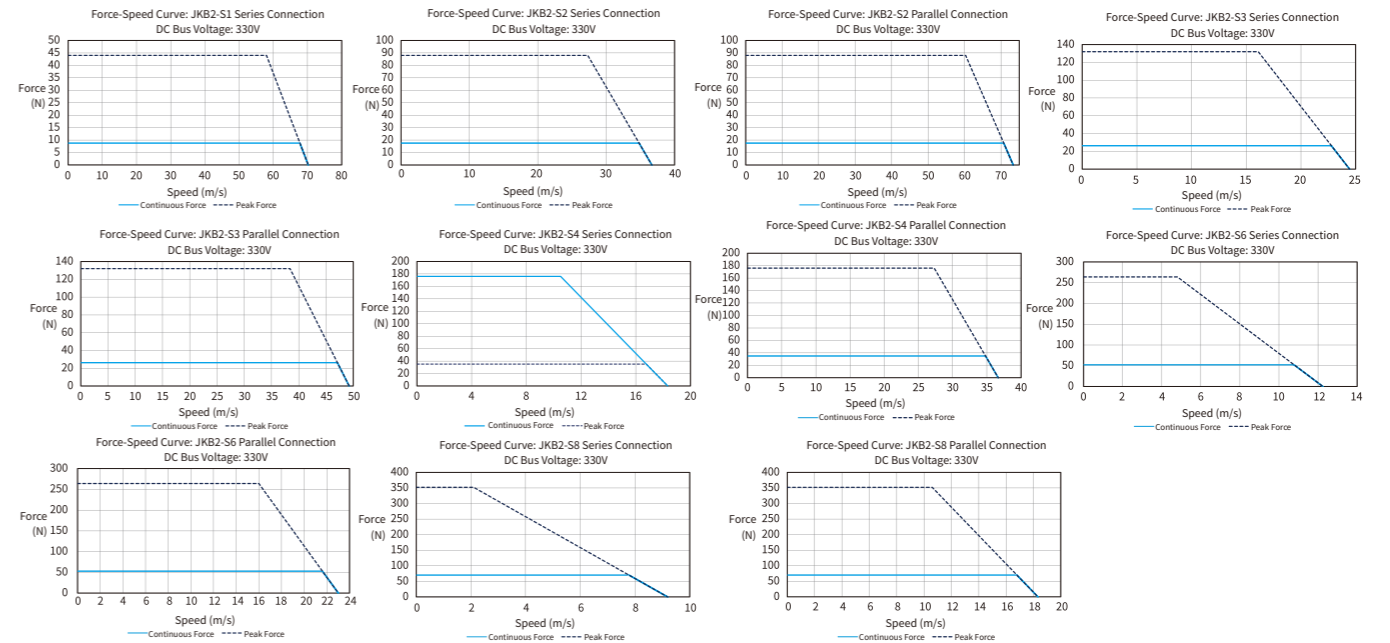


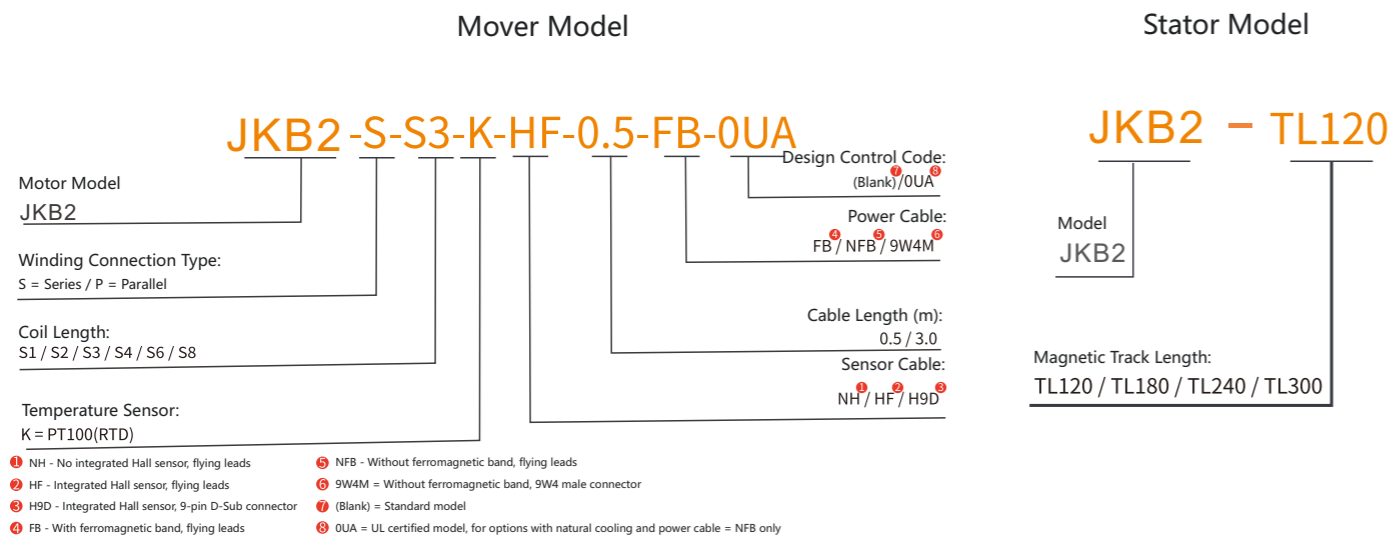


JKB2 Series: Thrust Graph



Specification Parameters

• Model Number Designation System



| | | | JKB2-S1 | JKB2-S2 | JKB2-S3 | JKB2-S4 | JKB2-S6 | JKB2-S8 | | | | | |
|--|--|---------------------------------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| Performance Parameters | | | Series | Series | Series | Series | Series | Series | Series | Series | Series | Series | Series |
| Continuous Thrust (Natural Cooling) @100°C ^① | F _{cn} | N | 8.8 | 17.6 | 17.6 | 26.4 | 26.4 | 35.2 | 35.2 | 52.8 | 52.8 | 70.4 | 70.4 |
| Peak Thrust | F _{pk} | N | 44.0 | 88.0 | 88.0 | 132.0 | 132.0 | 176.0 | 176.0 | 264.0 | 264.0 | 352.0 | 352.0 |
| Force Constant ±10% | K _f | N/Arms | 5.5 | 11.0 | 5.5 | 16.5 | 8.3 | 22.0 | 11.0 | 33.0 | 16.5 | 44.0 | 22.0 |
| Back EMF Constant ±10% | K _e | Vpeak/(m/s) | 4.5 | 9.0 | 4.5 | 13.5 | 6.7 | 18.0 | 9.0 | 26.94 | 13.47 | 35.9 | 18.0 |
| Motor Constant @25°C | K _m | N/Sqrt(W) | 2.5 | 3.5 | 3.5 | 4.3 | 4.2 | 5.0 | 4.9 | 6.1 | 6.0 | 7.1 | 7.1 |
| Phase-to-Phase Resistance @25°C ±10% ^② | R ₂₅ | Ω | 3.25 | 6.64 | 1.71 | 9.95 | 2.63 | 13.17 | 3.35 | 19.75 | 5.00 | 25.76 | 6.51 |
| Phase-to-Phase Inductance ±40% ^③ | L | mH | 1.03 | 1.96 | 0.51 | 2.94 | 0.73 | 3.88 | 0.97 | 5.88 | 1.55 | 7.83 | 1.96 |
| Electrical Time Constant | T _e | ms | 0.32 | 0.30 | 0.30 | 0.30 | 0.28 | 0.29 | 0.29 | 0.30 | 0.31 | 0.30 | 0.30 |
| Continuous Current (Natural Cooling) @100°C ^① | I _{cn} | Arms | 1.6 | 1.6 | 3.2 | 1.6 | 3.2 | 1.6 | 3.2 | 1.6 | 3.2 | 1.6 | 3.2 |
| Peak Current | I _{pk} | Arms | 8.0 | 8.0 | 16.0 | 8.0 | 16.0 | 8.0 | 16.0 | 8.0 | 16.0 | 8.0 | 16.0 |
| Continuous Thermal Power (Natural Cooling) @100°C ^① | P _{cn} | W | 16.1 | 32.9 | 33.8 | 49.2 | 52.1 | 65.2 | 66.3 | 97.7 | 99.0 | 127.5 | 128.9 |
| Max. Coil Temperature | t _{max} | °C | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Thermal Dissipation Constant (Natural Cooling) ^① | K _{thn} | W/°C | 0.2 | 0.4 | 0.5 | 0.7 | 0.7 | 0.9 | 0.9 | 1.3 | 1.3 | 1.7 | 1.7 |
| Max. Bus Voltage | U _{bus} | Vdc | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 | 330 |
| Electromagnetic Period | T _{NN} | mm | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| Magnetic Attraction Force | F _a | kN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mechanical Parameters | | | | | | | | | | | | | |
| Coil Mass (Natural Cooling) | m _{cn} | kg | 0.06 | 0.12 | 0.12 | 0.18 | 0.18 | 0.24 | 0.24 | 0.35 | 0.35 | 0.47 | 0.47 |
| Coil Length (Natural Cooling) | L _{cn} | mm | 31.0 | 61.0 | 61.0 | 91.0 | 91.0 | 121.0 | 121.0 | 181.0 | 181.0 | 241.0 | 241.0 |
| Magnetic Track Mass (per meter) | m _{track} | kg/m | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 | 3.90 |
| Other Information | | | | | | | | | | | | | |
| Insulation Level | Class B (130°C) | | | | | | | | | | | | |
| Protection Grade | IP00 | | | | | | | | | | | | |
| Compliance Standards | RoHS, CE, UL (option) | | | | | | | | | | | | |
| Ambient Temperature | Operating | 0°C - 40°C (no icing) | | | | | | | | | | | |
| | Storage | -15°C to 70°C (no icing) | | | | | | | | | | | |
| Ambient Humidity | Operating | 10% to 80% RH (no condensation) | | | | | | | | | | | |
| | Storage | 10% to 90% RH (no condensation) | | | | | | | | | | | |
| Recommended Operating Environment | Indoor (no direct sunlight) Free from corrosive gases, flammable gases, oil mist, or dust | | | | | | | | | | | | |

① Measured at 25°C room temperature, depending on heat dissipation conditions.
 ② Resistance measured with DC current, including 0.5m standard cable.
 ③ Inductance measured at 1kHz. The wide tolerance range (±40%) for JKB series is due to differences in three-phase inductance. The catalog value represents the average of maximum and minimum values, with each phase having ±20% tolerance.
 Relevant parameters are subject to change without prior notice.

