



Brushless Servo Motors

ULTRA COMPACT SERVO MOTORS

- Up to 30% increased power density
- Up to 20% reduced dimensions
- Sophisticated design, intended for extreme torque stability and precision



TECHNICAL DATA

Motor Type

B71.12U 12.5 Nm - 3000 rpm - 10 poles - 400V

PERFORMANCE DATA

| | |
|---|---------|
| Type | B71.12U |
| Stall torque (Deltat=105°C) Mo Nm | 12.5 |
| Rated speed n rpm | 3000 |
| Rated power P _n kW | 3.0 |
| Rated torque (Deltat=105°C) Mn Nm | 9.50 |
| Peak torque M _{pk} Nm | 31.5 |
| Max speed n _{max} rpm | 5000 |
| Moment of inertia J 10?? Kgm ² | 6.8 |
| Thermal time constant T _{th} min | 38 |
| Voltage constant k _e V _s | 0.94 |
| Torque constant k _t Nm/A | 1.63 |
| Resistance phase to phase (20°C) R _w ? | 1.33 |
| Inductance phase to phase L _w mH | 15.7 |
| B.E.M.F. @ rated speed E _n Vrms | 296 |

| | |
|--|------|
| Stall current I_o Arms | 7.7 |
| Rated current I_n Arms | 5.8 |
| Peak current I_{pk} Arms | 26.8 |
| Connection type/size | 7/1 |
| Weight kg | 9.5 |

Mechanical Data

| | |
|-----------------------------|----------------------------------|
| Design | Aluminium |
| Degree of protection | IP 65 |
| Bearings DE | 6205 |
| Bearings NDE | 6203 |
| Lubrication grease | low & high temperature grease |
| Regreasing device | permanent lubrication |
| Cooling | radiation and natural convection |
| Vibration Level | A (normal) |

Electrical Data

| | |
|--|------|
| Voltage | 400V |
| Poles | 10 |
| Thermal protection threshold θ_{max} °C | 140 |