



## 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

B56.I5U 5.5 Nm - 3000 rpm - 10 poles - 400V

## PERFORMANCE DATA

| Type                                              | B56.I5U |
|---------------------------------------------------|---------|
| Stall torque (Deltat=105°C) Mo Nm                 | 5.5     |
| Rated speed n rpm                                 | 3000    |
| Rated power P <sub>n</sub> kW                     | 1.4     |
| Rated torque (Deltat=105°C) Mn Nm                 | 4.6     |
| Peak torque M <sub>pk</sub> Nm                    | 18.7    |
| Max speed n <sub>max</sub> rpm                    | 6600    |
| Moment of inertia J 10?? Kgm <sup>2</sup>         | 1.8     |
| Thermal time constant T <sub>th</sub> min         | 22      |
| Voltage constant k <sub>e</sub> V <sub>s</sub>    | 0.84    |
| Torque constant k <sub>t</sub> Nm/A               | 1.45    |
| Resistance phase to phase (20°C) R <sub>w</sub> ? | 4.25    |
| Inductance phase to phase L <sub>w</sub> mH       | 22.9    |
| B.E.M.F. @ rated speed E <sub>n</sub> Vrms        | 264     |

|                            |      |
|----------------------------|------|
| Stall current $I_o$ Arms   | 3.8  |
| Rated current $I_n$ Arms   | 3.2  |
| Peak current $I_{pk}$ Arms | 17.4 |
| Connection type/size       | 7/1  |
| Weight kg                  | 5.5  |

## Mechanical Data

|                      |                                  |
|----------------------|----------------------------------|
| Design               | Aluminium                        |
| Degree of protection | IP 65                            |
| Bearings DE          | 6204                             |
| Bearings NDE         | 6003                             |
| 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 $\theta_{max}$ °C | 140  |