



## Brushless Servo Motors

### SERVO MOTORS - PREFERRED

- Speed, precision, control for top performance
- Application oriented: tailor-made service, from design to assistance
- Preferred series: for minimum delivery times



## TECHNICAL DATA

Motor Type

B10.54Q 81 Nm - 3000 rpm - 8 poles - 400V

## PERFORMANCE DATA

|                                                                |         |
|----------------------------------------------------------------|---------|
| Type                                                           | B10.54Q |
| Stall torque (Deltat=105°C) Mo Nm                              | 81      |
| Rated speed n rpm                                              | 3000    |
| Rated power P <sub>n</sub> kW                                  | 21.0    |
| Rated torque (Deltat=105°C) Mn Nm                              | 66.8    |
| Peak torque M <sub>pk</sub> Nm                                 | 230     |
| Max speed n <sub>max</sub> rpm                                 | 4000    |
| Moment of inertia J 10?? Kgm <sup>2</sup>                      | 63      |
| Peack torque acceleration a <sub>pk</sub> rad/sec <sup>2</sup> | 36508   |
| Thermal time constant T <sub>th</sub> min                      | 54      |
| Voltage constant k <sub>e</sub> V <sub>s</sub>                 | 0.94    |
| Torque constant k <sub>t</sub> Nm/A                            | 1.63    |
| Resistance phase to phase (20°C) R <sub>w</sub> ?              | 0.17    |
| Inductance phase to phase L <sub>w</sub> mH                    | 2.5     |

|                                                     |       |
|-----------------------------------------------------|-------|
| <b>B.E.M.F. @ rated speed <math>E_n</math> Vrms</b> | 296   |
| <b>Stall current <math>I_o</math> Arms</b>          | 50.4  |
| <b>Rated current <math>I_n</math> Arms</b>          | 41    |
| <b>Peak current <math>I_{pk}</math> Arms</b>        | 187   |
| <b>Power connector size</b>                         | 7/1.5 |
| <b>Weight kg</b>                                    | 57    |

## Mechanical Data

|                             |                                  |
|-----------------------------|----------------------------------|
| <b>Design</b>               | Aluminium                        |
| <b>Degree of protection</b> | IP 65                            |
| <b>Bearings DE</b>          | 6309 2ZC3WT                      |
| <b>Bearings NDE</b>         | 6207 2ZC3WT                      |
| <b>Lubrication grease</b>   | low & high temperature grease    |
| <b>Regreasing device</b>    | permanent lubrication            |
| <b>Cooling</b>              | radiation and natural convection |
| <b>Vibration Level</b>      | A (normal)                       |

## Electrical Data

|                                                                  |      |
|------------------------------------------------------------------|------|
| <b>Poles</b>                                                     | 8    |
| <b>Voltage</b>                                                   | 400V |
| <b>Thermal protection threshold <math>\theta_{max}</math> °C</b> | 140  |