



## 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

B63.10U 13.3 Nm - 3000 rpm - 10 poles - 400V

## PERFORMANCE DATA

| Type                                              | B63.10U |
|---------------------------------------------------|---------|
| Stall torque (Deltat=105°C) Mo Nm                 | 13.3    |
| Rated speed n rpm                                 | 3000    |
| Rated power P <sub>n</sub> kW                     | 3.3     |
| Rated torque (Deltat=105°C) Mn Nm                 | 10.5    |
| Peak torque M <sub>pk</sub> Nm                    | 35.0    |
| Max speed n <sub>max</sub> rpm                    | 6600    |
| Moment of inertia J 10?? Kgm <sup>2</sup>         | 4.0     |
| Thermal time constant T <sub>th</sub> min         | 11      |
| 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> ? | 2.13    |
| Inductance phase to phase L <sub>w</sub> mH       | 17.1    |
| B.E.M.F. @ rated speed E <sub>n</sub> Vrms        | 296     |

|                                              |      |
|----------------------------------------------|------|
| <b>Stall current <math>I_o</math> Arms</b>   | 8.1  |
| <b>Rated current <math>I_n</math> Arms</b>   | 6.4  |
| <b>Peak current <math>I_{pk}</math> Arms</b> | 31.0 |
| <b>Connection type/size</b>                  | 7/1  |
| <b>Weight kg</b>                             | 8.2  |

## Mechanical Data

|                             |                                  |
|-----------------------------|----------------------------------|
| <b>Design</b>               | Aluminium                        |
| <b>Degree of protection</b> | IP 65                            |
| <b>Bearings DE</b>          | 6204                             |
| <b>Bearings NDE</b>         | 6204                             |
| <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>Voltage</b>                                                   | 400V |
| <b>Poles</b>                                                     | 10   |
| <b>Thermal protection threshold <math>\theta_{max}</math> °C</b> | 140  |