



### 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 - 4500 rpm - 10 poles - 400V

## PERFORMANCE DATA

<b>Type</b>	B71.12U
<b>Stall torque (Deltat=105°C) Mo Nm</b>	12.5
<b>Rated speed n rpm</b>	4500
<b>Rated power P<sub>n</sub> kW</b>	3.7
<b>Rated torque (Deltat=105°C) Mn Nm</b>	7.80
<b>Peak torque M<sub>pk</sub> Nm</b>	31.5
<b>Max speed n<sub>max</sub> rpm</b>	5000
<b>Moment of inertia J 10?? Kgm<sup>2</sup></b>	6.80
<b>Thermal time constant T<sub>th</sub> min</b>	38
<b>Voltage constant k<sub>e</sub> V<sub>s</sub></b>	0.63
<b>Torque constant k<sub>t</sub> Nm/A</b>	1.09
<b>Resistance phase to phase (20°C) R<sub>w</sub> ?</b>	0.60
<b>Inductance phase to phase L<sub>w</sub> mH</b>	7.7
<b>B.E.M.F. @ rated speed E<sub>n</sub> Vrms</b>	296

<b>Stall current <math>I_o</math> Arms</b>	11.5
<b>Rated current <math>I_n</math> Arms</b>	7.1
<b>Peak current <math>I_{pk}</math> Arms</b>	40.0
<b>Connection type/size</b>	7/1
<b>Weight kg</b>	8.1

## Mechanical Data

<b>Design</b>	Aluminium
<b>Degree of protection</b>	IP 65
<b>Bearings DE</b>	6205
<b>Bearings NDE</b>	6203
<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