



## 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

Type	B71.12U
Stall torque (Deltat=105°C) Mo Nm	12.5
Rated speed n rpm	4500
Rated power P <sub>n</sub> kW	3.7
Rated torque (Deltat=105°C) Mn Nm	7.80
Peak torque M <sub>pk</sub> Nm	31.5
Max speed n <sub>max</sub> rpm	5000
Moment of inertia J 10?? Kgm <sup>2</sup>	6.80
Thermal time constant T <sub>th</sub> min	38
Voltage constant k <sub>e</sub> V <sub>s</sub>	0.63
Torque constant k <sub>t</sub> Nm/A	1.09
Resistance phase to phase (20°C) R <sub>w</sub> ?	0.60
Inductance phase to phase L <sub>w</sub> mH	7.7
B.E.M.F. @ rated speed E <sub>n</sub> Vrms	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>	9.5

## 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