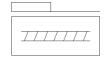
spindle axis ELGT-BS-160-450-10P Part number: 8124516







Data sheet

Feature	Value	
Working stroke	450 mm	
Size	160	
roke reserve 0 mm		
Reversing backlash	<= 0.15 μm	
Spindle diameter	20 mm	
Spindle pitch	10 mm/U	
Assembly position	Any	
Guide	Recirculating ball bearing guide	
Design structure	Electromechanical linear axis	
	with recirculating ball bearing spindle	
Motor type	Stepper motor	
	Servomotor	
Spindle type	Ball screw spindle	
Variants	Recommended for production facilities for the manufacture of lithium-	
	ion batteries	
Max. acceleration	15 m/s2	
Max. speed	3,000 1/min	
	0.5 m/s	
Repetition accuracy	±0,02 mm	
Duty cycle	100 %	
PWIS conformity	VDMA24364 zone III	
RSBP classification to CD-0033	F1a	
Cleanroom class	ISO class 8	
Protection class	IP20	
Ambient temperature	0 50 °C	
Permanent feed force	1,575 N	
Area moment of inertia 2nd degree ly	1,411E+03 mm4	
Area moment of inertia 2nd degree Iz	15,257E+03 mm4	
No-load torque at maximum travel speed	0.4 Nm	
No-load torque at minimum travel speed	0.2 Nm	
Max. force Fy	9,550 N	
Max. force Fz	11,370 N	
Fy with theoretical service life of 100 km (from a guide perspective only)	35,183 N	
Fz with theoretical service life of 100 km (from a guide perspective only)	41,887 N	
Max. torque Mx	600 Nm	
Max. torque My	560 Nm	
Max. torque Mz	560 Nm	
Mx with theoretical service life of 100 km (from a guide perspective only	2,210 Nm	
My with theoretical service life of 100 km (from a guide perspective only)	2,063 Nm	
Mz with theoretical service life of 100 km (from a guide perspective only)	2,063 Nm	
Max. radial force at drive shaft	340 N	
Max. feed force Fx	1,575 N	
Torsional mass moment of inertia It	726E+03 mm4	
Mass moment of inertia JH per metre of stroke	809 kgcm2	
Mass moment of inertia JL per kg of working load	0.0253 kgcm2	
Mass moment of inertia, JO	0.3175 kgcm2	



Feature	Value	
Feed constant	10 mm/U	
Moving mass	3,855 g	
Product weight	18,004 g	
Basic weight for 0 mm stroke	9,564 g	
Additional weight per 10 mm stroke	188 g	
Dynamic deflection (load moved)	0.05% of the axis length, max. 0.5 mm	
Static deflection (load at standstill)	0.1% of the axis length	
Interface code, actuator	T46	
Material of end caps	Die-cast aluminium, painted	
Material of profile	Anodised wrought aluminium alloy	
Materials note	Conforms to RoHS	
Material drive cover	Die-cast aluminium, painted	
Material guide slide	Steel	
Material guide rail	Steel	
Material slide	Anodised wrought aluminium alloy	
Material spindle nut	Steel	
Material spindle	Steel	