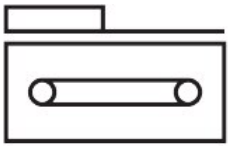
Belt driven linear actuator
EGC-80-500-TB-KF-0H-GK

Part number: 3013354





Data sheet

Feature	Value
Drive pinion effective diameter	28.65 mm
Working stroke	500 mm
Size	80
Stroke reserve	0 mm
Toothed belt pitch	3 mm
Mounting position	Any
Guide	Recirculating ball bearing
Structural design	Electromechanical linear axis With toothed belt
Motor type	Stepper motor Servo motor
Max. acceleration	50 m/s²
Max. speed	5 m/s
Repetition accuracy	±0.08 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 Zone III
Degree of protection	IP40
Ambient temperature	-10 °C...60 °C
2nd moment of area Iy	844000 mm⁴
2nd moment of area Iz	1160000 mm⁴
Max. force Fy	3050 N
Max. force Fz	3050 N
Max. force Fy total axis	3050 N
Max. force Fz total axis	3050 N
Fy with theoretical service life of 100 km (from a guide perspective only)	11236 N
Fz with theoretical service life of 100 km (from a guide perspective only)	11236 N
Max. no-load resistance to shifting	28 N
Max. torque Mx	36 Nm
Max. torque My	97 Nm
Max. torque Mz	97 Nm
Max. moment Mx total axis	36 Nm
Max. moment My total axis	97 Nm

Feature	Value
Max. moment Mz total axis	97 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	133 Nm
My with theoretical service life of 100 km (from a guide perspective only)	357 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	357 Nm
Max. feed force Fx	350 N
Torsion moment of inertia It	551000 mm^4
Mass moment of inertia JH per meter of stroke	0.19 $kgcm^2$
Mass moment of inertia JL per kg of payload	2.05 $kgcm^2$
Feed constant	90 mm/U
Reference service life	5000 km
Material of end caps	Wrought aluminum alloy Anodized
Profile material	Wrought aluminum alloy Anodized
Note on materials	RoHS compliant
Drive cover material	Wrought aluminum alloy Anodized
Slide carriage material	Steel
Guide rail material	Steel
Belt pulley material	high-alloy stainless steel
Slide material	Wrought aluminum alloy Anodized
Toothed belt clamping component material	Cast stainless steel
Toothed belt material	Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating