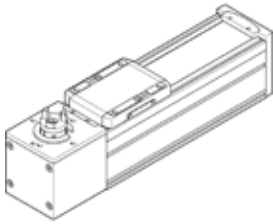


toothed belt axis ELGC-TB-KF-80-200

Part number: 8062786

FESTO



Data sheet

| Feature | Value |
|--|--|
| Effective diameter of drive pinion | 33.42 mm |
| Working stroke | 200 mm |
| Size | 80 |
| Stroke reserve | 0 mm |
| Toothed-belt stretch | 0.2 % |
| Toothed-belt pitch | 3 mm |
| Assembly position | Any |
| Guide | Recirculating ball bearing guide |
| Design structure | Electromechanical linear axis With toothed belt |
| Motor type | Stepper motor Servomotor |
| Measuring method: displacement encoder | Incremental |
| Position detection | For proximity sensor For inductive sensors |
| Max. acceleration | 15 m/s ² |
| Max. speed | 1.5 m/s |
| Repetition accuracy | ±0,1 mm |
| Duty cycle | 100 % |
| PWIS conformity | VDMA24364 zone III |
| RSBP classification to CD-0033 | F1a |
| Cleanroom class | ISO class 7 |
| Protection class | IP40 |
| Ambient temperature | 0 ... 50 °C |
| Impact energy in end positions | 0.75 mJ |
| Note on the impact energy it the end positions | At maximum homing speed of 0.01 m/s |
| Area moment of inertia 2nd degree Iy | 1,370E+03 mm ⁴ |
| Area moment of inertia 2nd degree Iz | 1,660E+03 mm ⁴ |
| Max. drive torque | 4.178 Nm |
| Max. force Fy | 900 N |
| Max. force Fz | 2,700 N |
| Fy for the guide calculation for a service life of 5000 km or 5 million cycles | 5,543 N |
| Fz for the guide calculation for a service life of 5000 km or 5 million cycles | 5,543 N |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 20,400 N |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 20,400 N |
| Max. idling displacement resistance | 24.7 N |
| Max. torque Mx | 59.8 Nm |
| Max. torque My | 56.2 Nm |
| Max. torque Mz | 56.2 Nm |
| Mx for the guide calculation for a service life of 5000 km or 5 million cycles | 59.8 Nm |
| My for the guide calculation for a service life of 5000 km or 5 million cycles | 56.2 Nm |
| Mz for the guide calculation for a service life of 5000 km or 5 million cycles | 56.2 Nm |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 220 Nm |
| My with theoretical service life of 100 km (from a guide perspective only) | 207 Nm |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 207 Nm |
| Distance between the slide surface and the centre of the guide | 72.5 mm |

| Feature | Value |
|--|---------------------------------------|
| Max. feed force Fx | 250 N |
| No-load driving torque | 0.413 Nm |
| Torsional mass moment of inertia It | 90.5E+03 mm ⁴ |
| Mass moment of inertia JH per metre of stroke | 0.1927 kgcm ² |
| Mass moment of inertia JL per kg of working load | 2.793 kgcm ² |
| Mass moment of inertia, JO | 2.912 kgcm ² |
| Feed constant | 105 mm/U |
| Maintenance interval | Life-time lubrication |
| Moving mass | 901 g |
| Moving mass with 0 mm stroke | 901 g |
| Slide weight | 272 g |
| Product weight | 4,956 g |
| Basic weight for 0 mm stroke | 3,500 g |
| Additional weight per 10 mm stroke | 73 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 cover tape | Stainless steel strip |
| Material drive cover | Die-cast aluminium, painted |
| Material guide slide | Heat-treatment steel |
| Material guide rail | Heat-treatment steel |
| Material pulleys | High alloy steel, non-corrosive |
| Material slide | Aluminium die cast |
| Material toothed belt | Polychloroprene with glass fibres |