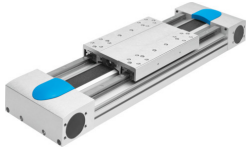


# Toothed belt axis EGC-HD-160- -TB

Part number: 556824

**FESTO**



## Data sheet

| Feature   | Value  |
|---|--|
| Effective diameter of drive pinion                                | 39.79 mm   |
| Working stroke  | 50 mm...5000 mm                                    |
| Size  | 160  |
| Toothed-belt stretch  | 0.23 %   |
| Toothed-belt pitch  | 5 mm   |
| Mounting position   | optional   |
| Guide   | Recirculating ball bearing guide                   |
| Design  | Electromechanical linear axis<br>With toothed belt |
| Type of motor   | Stepper motor<br>Servo motor                       |
| Functional principle of measuring system                          | Incremental  |
| Max. acceleration   | 50 m/s <sup>2</sup>                                |
| Max. speed  | 5 m/s  |
| Duty cycle  | 100%   |
| LABS (PWIS) conformity  | VDMA24364 zone III                                 |
| Degree of protection  | IP40   |
| Ambient temperature   | -10 °C...60 °C                                     |
| 2nd moment of area Iy   | 1290000 mm <sup>4</sup>                            |
| 2nd moment of area Iz   | 9890000 mm <sup>4</sup>                            |
| Max. drive torque   | 20 Nm  |
| Max. force Fy   | 5600 N   |
| Max. force Fz   | 5600 N   |
| Max. force Fy total axis  | 5600 N   |
| Max. force Fz total axis  | 5600 N   |
| Fy at theoretical life value of 100 km (only guide consideration) | 20630 N  |
| Fz at theoretical life value of 100 km (only guide consideration) | 20630 N  |
| Max. idle running transfer resistance                             | 105.5 N  |
| Max. moment Mx  | 300 Nm   |
| Max. moment My  | 500 Nm   |
| Max. moment Mz  | 500 Nm   |
| Max. moment Mx total axis   | 300 Nm   |

| Feature   | Value   |
|---|---|
| Max. moment My total axis   | 500 Nm  |
| Max. moment Mz total axis   | 500 Nm  |
| Mx at theoretical life value of 100 km (only guide consideration) | 1105 Nm   |
| My at theoretical life value of 100 km (only guide consideration) | 1842 Nm   |
| Mz at theoretical life value of 100 km (only guide consideration) | 1842 Nm   |
| Max. feed force Fx  | 1000 N  |
| Frictional torque independent of load                             | 2.1 Nm  |
| Torsional mass moment of inertia It                               | 1040000 mm <sup>4</sup>   |
| Mass moment of inertia JH per metre of stroke                     | 1.267 kgcm <sup>2</sup>   |
| Mass moment of inertia JL per kg of working load                  | 3.96 kgcm <sup>2</sup>  |
| Mass moment of inertia JO   | 14.49 kgcm <sup>2</sup>   |
| Mass moment of inertia JW for additional slide                    | 11.734 kgcm <sup>2</sup>  |
| Feed constant   | 125 mm/U  |
| Reference service life  | 5000 km   |
| Weight of slide   | 2571 g  |
| Weight of additional slide  | 2022 g  |
| Basic weight for 0 mm stroke                                      | 9050 g  |
| Additional weight per 10 mm stroke                                | 107 g   |
| Material profile  | Anodised wrought aluminium alloy  |
| Note on materials   | RoHS-compliant  |
| Material drive cover  | Anodised wrought aluminium alloy  |
| Material pulleys  | High-alloy stainless steel  |
| Material slide  | Anodised wrought aluminium alloy  |
| Material toothed belt clamping piece                              | Beryllium bronze  |
| Material toothed belt   | Polychloroprene with glass filament and nylon coating<br>Polyurethane with steel cord and nylon cover |