

# Electric cylinder EPCC-BS-45-200-3P-A

Part number: 5428865

FESTO



 General operating condition

## Data sheet

| Feature   | Value  |
|---|--|
| Size  | 45   |
| Stroke  | 200 mm   |
| Stroke reserve  | 0 mm   |
| Piston rod thread   | M10x1.25   |
| Reversing backlash theoretical                            | 100 µm   |
| Spindle diameter  | 10 mm  |
| Spindle pitch   | 3 mm/U   |
| Torsional backlash at piston rod +/-                      | 1 deg  |
| Mounting position   | optional   |
| Piston-rod end  | Male thread  |
| Type of motor   | Stepper motor<br>Servo motor                                       |
| Position detection  | Via proximity switch   |
| Design  | With ball screw drive  |
| Spindle type  | Ball screw drive   |
| Symbol  | 00991941   |
| Protection against torque/guide                           | With plain-bearing guide   |
| Max. acceleration   | 5 m/s <sup>2</sup>   |
| Max. rotational speed                                     | 3600 rpm   |
| Max. speed  | 0.18 m/s   |
| Max. homing speed   | 0.01 m/s   |
| Repetition accuracy                                       | ±0.02 mm   |
| Duty cycle  | 100%   |
| Corrosion resistance class CRC                            | 0 - No corrosion stress  |
| LABS (PWIS) conformity                                    | VDMA24364 zone III   |
| Suitability for the production of Li-ion batteries        | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 9 according to ISO 14644-1                                   |
| Storage temperature                                       | -20 °C ... 60 °C   |
| Relative air humidity                                     | Non-condensing   |
| Degree of protection                                      | IP40   |
| Ambient temperature                                       | 0 °C ... 60 °C   |
| Impact energy in end positions                            | 0.012 J  |
| Max. drive torque   | 0.4 Nm   |
| Max. moment Mx  | 0 Nm   |
| Max. moment My  | 2.9 Nm   |
| Max. moment Mz  | 2.9 Nm   |

| Feature  | Value                                 |
|--|---------------------------------------|
| Max. radial force at drive shaft                 | 180 N                                 |
| Max. feed force Fx                               | 450 N                                 |
| Frictional torque independent of load            | 0.08 Nm                               |
| Reference value effective load, horizontal       | 60 kg                                 |
| Reference value effective load, vertical         | 30 kg                                 |
| Mass moment of inertia JH per metre of stroke    | 0.0503 kgcm <sup>2</sup>              |
| Mass moment of inertia JL per kg of working load | 0.0023 kgcm <sup>2</sup>              |
| Mass moment of inertia JO                        | 0.0109 kgcm <sup>2</sup>              |
| Maintenance interval                             | Life-time lubrication                 |
| Moving mass for 0 mm stroke                      | 179 g                                 |
| Additional moving mass per 10 mm stroke          | 4.9 g                                 |
| Basic weight for 0 mm stroke                     | 555 g                                 |
| Additional weight per 10 mm stroke               | 41 g                                  |
| Type of mounting                                 | Via female thread<br>With accessories |
| Note on materials                                | RoHS-compliant                        |
| Material housing                                 | Smooth anodised                       |
| Material piston rod                              | High-alloy stainless steel            |
| Material ball screw nut                          | Steel                                 |
| Material spindle                                 | Rolled steel                          |