

## EDA94Z

High-precision, high-load servo electric cylinder with customizable stroke EDA94Z

### PRODUCT

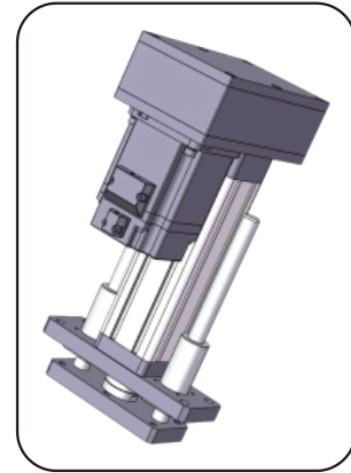
A servo electric cylinder for guided linear motion in a machine or production line.

### TECHNICAL SPECIFICATIONS

|                              |                  |
|------------------------------|------------------|
| Limit switch                 | Magnetic switch  |
| Maximum allowed speed        | $\leq 1000$ mm/s |
| Maximum thrust allowed       | $\leq 30$ kN     |
| Rotation angle of piston rod | $\pm 0.3$ deg    |
| Scalable length              | $\leq 960$ mm    |
| internal diameter            | $\phi 80$ mm     |

### SELECTION

Choose thrust, stroke, and speed as one duty. A catalog maximum does not mean the other maximums apply at the same time. Confirm screw lead, motor mounting, gear reduction, and the load connection before ordering.



Product illustration

### BASIC PARAMETERS

(Note: Thrust, stroke, and speed should be combined with actual usage, and the upper limit values of the three cannot be used together.)

| Outer diameter | internal diameter | Maximum thrust allowed | Scalable length | Maximum allowed speed | Maximum allowed speed<br>Rotation angle of piston rod<br>Limit switch | Limit switch    |
|----------------|-------------------|------------------------|-----------------|-----------------------|-----------------------------------------------------------------------|-----------------|
| 94x94 mm       | $\phi 80$ mm      | $\leq 30$ kN           | $\leq 960$ mm   | $\leq 1000$ mm/s      | $\pm 0.3$ deg                                                         | Magnetic switch |

### DRIVE AND MOTOR OPTIONS

| Lead of ball screw | Synchronous wheel speed ratio (input: output) | Synchronous wheel speed ratio (input: output) | Synchronous wheel speed ratio (input: output) | Motor specifications that can be directly installed | Reducers that can be matched | Reducers that can be matched |
|--------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------------|------------------------------|------------------------------|
| 05mm               | 1:1                                           | 1.5:1                                         | 2:1                                           | 180A                                                | 85A                          | 60A, 80A, 130A               |
| 10mm               | 1:1                                           | 1.5:1                                         | 2:1                                           | 180A                                                | 85A                          | 60A, 80A, 130A               |
| 10mm               | 1:1                                           | 1.5:1                                         | 2:1                                           | 180A                                                | 90A                          | 60A, 80A, 100A, 130A         |
| 20mm               | 1:1                                           | 1.5:1                                         | 2:1                                           | 180A                                                | 90A                          | 60A, 80A, 100A, 130A         |
| 20mm               | 1:1                                           | 1.5:1                                         | 2:1                                           | 180A                                                | 115A                         | 80 A , 100A , 130A, 180A     |
| 32mm               | 1:1                                           | 1.5:1                                         | 2:1                                           | 180A                                                | 115A                         | 80 A , 100A , 130A, 180A     |

# EDA94Z

Electric Cylinders

## BALL-SCREW PARAMETERS

(Note: The lead screw load is for a stroke of  $\leq 300$ mm, and for a stroke greater than 300mm, please consult our technical personnel.)

| Ball screw model | Type       | Diameter | Lead of ball screw | Ca (KN) | Coa (KN) | Steel properties | Ball diameter | Screw shaft | Slenderness ratio | Accuracy Positioning   accuracy level | Accuracy Positioning   accuracy level |
|------------------|------------|----------|--------------------|---------|----------|------------------|---------------|-------------|-------------------|---------------------------------------|---------------------------------------|
| SFNU3205-4       | Ball screw | 32 mm    | 05mm               | 18.8 KN | 62.2 KN  | 54KgF/um         | 3.175mm       | 32K10       | 1:30              | C5/+/-0.01                            | C7/+/-0.02                            |
| SFNU3210-4       | Ball screw | 32 mm    | 10mm               | 47.1 KN | 119.7 KN | 61KgF/um         | 6.35mm        | 32K10       | 1:30              | C5/+/-0.01                            | C7/+/-0.02                            |
| SFA3220-2.8      | Ball screw | 32 mm    | 25mm               | 18.7 KN | 53.7 KN  | 43KgF/um         | 3.969mm       | 32K10       | 1:30              | C5/+/-0.01                            | C7/+/-0.02                            |
| SFA3232-1.8      | Ball screw | 32 mm    | 32mm               | 12.3 KN | 33.5 KN  | 27KgF/um         | 3.969mm       | 32K10       | 1:30              | C5/+/-0.01                            | C7/+/-0.02                            |

## BEARING PARAMETERS

| Bearing model              | Cr (KN) | Cor (KN) |
|----------------------------|---------|----------|
| Deep groove ball 6007-ZZx2 | 15.9 KN | 10.3 KN  |
| Flat thrust bearing 51207  | 39 KN   | 78 KN    |

## TIMING PULLEYS AND BELT

| Synchronous wheel speed ratio | Driving gear specifications | Driven gear specifications | Number of active gear teeth | Number of driven wheel teeth | Center distance of synchronous wheel | Synchronous belt circumference | Synchronous belt width |
|-------------------------------|-----------------------------|----------------------------|-----------------------------|------------------------------|--------------------------------------|--------------------------------|------------------------|
| 1:1                           | 8M30T47                     | 8M30T47                    | 45                          | 45                           | 155mm                                | 672                            | 30mm                   |
| 1.5:1                         | 8M30T47                     | 8M30T47                    | 30                          | 45                           | 155mm                                | 608                            | 30mm                   |
| 2:1                           | 8M30T47                     | 8M30T47                    | 30                          | 60                           | 155mm                                | 680                            | 30mm                   |

## DIMENSION CORRESPONDENCE TABLE (MM)

| Load connection type | phiA  | phiB  | phiC  | C  | D   | E | F  | H  | G  | M       |
|----------------------|-------|-------|-------|----|-----|---|----|----|----|---------|
| External thread      | phi80 | phi60 | -     | 50 | 80  | 3 | 14 | -  | 55 | M40x1.5 |
| Internal thread      | phi80 | phi60 | -     | 40 | 30  | 3 | -  | -  | 55 | M24     |
| Type I connector     | phi80 | phi60 | phi35 | -  | 195 | 3 | 35 | 55 | 55 | -       |
| Fisheye bearing      | phi80 | phi60 | phi30 | -  | 94  | 3 | 37 | -  | 55 | -       |
| Y-joint              | phi80 | phi60 | phi35 | -  | 195 | 3 | 35 | 73 | 70 | -       |