

## PRODUCT DATASHEET

# ES-PS-C32-S001-V076

## Precision Linear Motion Assembly

Standard Planetary Roller Screws | Standard Planetary Roller Screw Series

### Product Overview

Precision Linear Motion Assembly with nominal diameter 100 mm, ball Screw Lead 12 mm and rated dynamic load  $C_a$  629 kN.

### Key Specifications

| PARAMETER                              | VALUE | UNIT  |
|----------------------------------------|-------|-------|
| Nominal diameter                       | 100   | mm    |
| Ball Screw Lead                        | 12    | mm    |
| Rated dynamic load $C_a$               | 629   | kN    |
| Rated static load $C_{0a}$             | 2008  | kN    |
| Maximum dynamic load $C_a$             | 661   | kN    |
| Maximum static load $C_{0a}$           | 2162  | kN    |
| Forward theoretical efficiency $\eta$  | 0.82  | ratio |
| Reverse theoretical efficiency $\eta'$ | 0.79  | ratio |
| Body diameter D                        | 185   | mm    |

## Technical Specifications

| PARAMETER                             | SPECIFICATION    | UNIT  |
|---------------------------------------|------------------|-------|
| PERFORMANCE                           |                  |       |
| Rated dynamic load $C_d$              | 629              | kN    |
| Rated static load $C_{0a}$            | 2008             | kN    |
| Maximum dynamic load $C_d$            | 661              | kN    |
| Maximum static load $C_{0a}$          | 2162             | kN    |
| MECHANICAL                            |                  |       |
| Nominal diameter                      | 100              | mm    |
| Ball Screw Lead                       | 12               | mm    |
| Interface thread Q                    | M8×1             |       |
| Mounting hole pattern G               | 12× $\phi$ 17.5  |       |
| CONFIGURATION                         |                  |       |
| Development status                    | Standard listing |       |
| ADDITIONAL SPECIFICATIONS             |                  |       |
| Forward theoretical efficiency $\eta$ | 0.82             | ratio |

## Technical Specifications

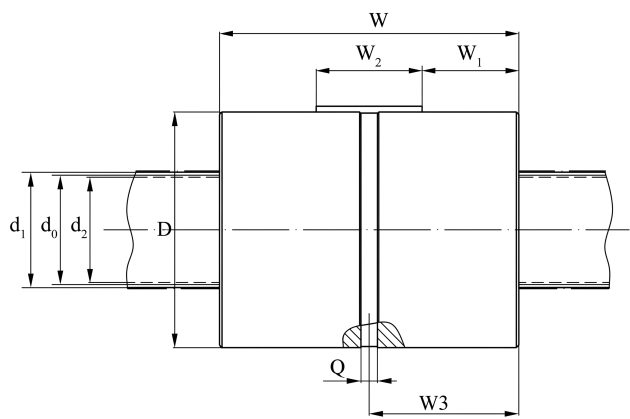
| PARAMETER                              | SPECIFICATION | UNIT  |
|----------------------------------------|---------------|-------|
| ADDITIONAL SPECIFICATIONS              |               |       |
| Reverse theoretical efficiency $\eta'$ | 0.79          | ratio |
| Body diameter D                        | 185           | mm    |
| Overall length W                       | 220           | mm    |
| Thread count N                         | 6             |       |
| Segment length $W_1$                   | 85            | mm    |
| Diameter $d_0$                         | 100           | mm    |
| Segment length $W_2$                   | 50            | mm    |
| Angle $\alpha$                         | 15            | °     |
| Diameter $d_1$                         | 100.7         | mm    |
| Diameter $d_2$                         | 99            | mm    |

# Dimensional & Integration Overview

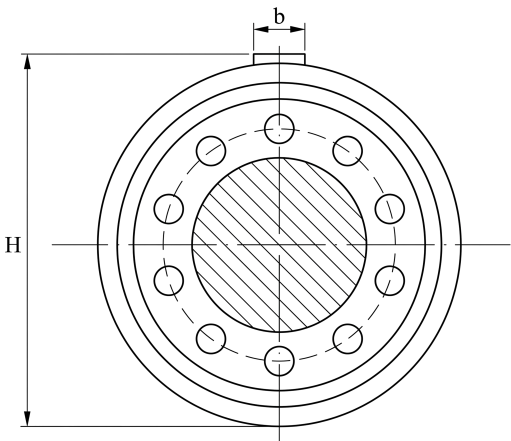
## Mechanical Overview

| PARAMETER               | VALUE    | UNIT |
|-------------------------|----------|------|
| Nominal diameter        | 100      | mm   |
| Ball Screw Lead         | 12       | mm   |
| Interface thread Q      | M8×1     |      |
| Mounting hole pattern G | 12×φ17.5 |      |
| Body diameter D         | 185      | mm   |
| Overall length W        | 220      | mm   |

## Dimensional Drawings



Mechanical View 1



Mechanical View 2

## 2D Drawing Dimensions & Callouts

| VIEW              | FIELD                                    | VALUE                  |
|-------------------|------------------------------------------|------------------------|
| Mechanical View 1 | Overall length W                         | W                      |
|                   | Segment length W2                        | W2                     |
|                   | Segment length W1                        | W1                     |
|                   | Shaft diameters d1, d0 and d2            | d1; d0; d2             |
|                   | Body diameter D                          | D                      |
|                   | Slot or keyway width Q                   | Q                      |
|                   | Lower segment length W3                  | W3                     |
| Mechanical View 2 | Mounting hole pattern pitch/width symbol | b, value Not specified |
|                   | Overall height                           | H, value Not specified |

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**01** Specifications are subject to change without notice. Verify the current product configuration before final design release.

**02** 2D drawings, CAD files and integration documentation are controlled documents and are supplied separately on request.