

## PRODUCT DATASHEET

# ES-PS-C32-S001-V074

## Precision Linear Motion Assembly

Standard Planetary Roller Screws | Standard Planetary Roller Screw Series

### Product Overview

Precision Linear Motion Assembly with nominal diameter 87 mm, ball Screw Lead 15 mm and rated dynamic load  $C_a$  610 kN.

### Key Specifications

| PARAMETER                              | VALUE | UNIT  |
|----------------------------------------|-------|-------|
| Nominal diameter                       | 87    | mm    |
| Ball Screw Lead                        | 15    | mm    |
| Rated dynamic load $C_a$               | 610   | kN    |
| Rated static load $C_{0a}$             | 1644  | kN    |
| Maximum dynamic load $C_a$             | 646   | kN    |
| Maximum static load $C_{0a}$           | 1808  | kN    |
| Forward theoretical efficiency $\eta$  | 0.86  | ratio |
| Reverse theoretical efficiency $\eta'$ | 0.84  | ratio |
| Body diameter D                        | 175   | mm    |

## Technical Specifications

| PARAMETER                              | SPECIFICATION    | UNIT  |
|----------------------------------------|------------------|-------|
| PERFORMANCE                            |                  |       |
| Rated dynamic load $C_d$               | 610              | kN    |
| Rated static load $C_{0a}$             | 1644             | kN    |
| Maximum dynamic load $C_d$             | 646              | kN    |
| Maximum static load $C_{0a}$           | 1808             | kN    |
| MECHANICAL                             |                  |       |
| Nominal diameter                       | 87               | mm    |
| Ball Screw Lead                        | 15               | mm    |
| CONFIGURATION                          |                  |       |
| Development status                     | Standard listing |       |
| ADDITIONAL SPECIFICATIONS              |                  |       |
| Forward theoretical efficiency $\eta$  | 0.86             | ratio |
| Reverse theoretical efficiency $\eta'$ | 0.84             | ratio |
| Body diameter D                        | 175              | mm    |

## Technical Specifications

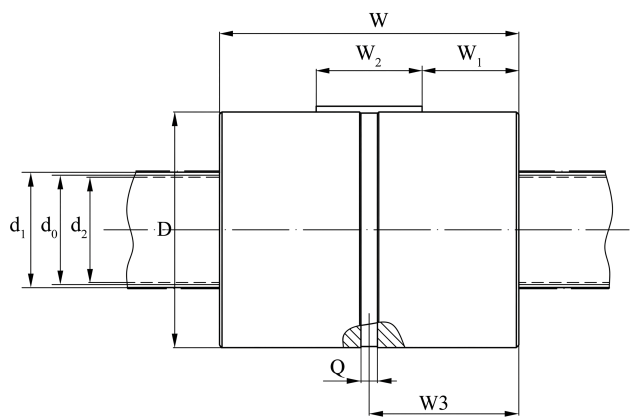
| PARAMETER                     | SPECIFICATION | UNIT |
|-------------------------------|---------------|------|
| ADDITIONAL SPECIFICATIONS     |               |      |
| Overall length W              | 215           | mm   |
| Thread count N                | 5             |      |
| Segment length W <sub>1</sub> | 76            | mm   |
| Diameter d <sub>0</sub>       | 87            | mm   |
| Overall height H              | 178           | mm   |
| Segment length W <sub>2</sub> | 63            | mm   |
| Diameter d <sub>1</sub>       | 87.2          | mm   |
| Diameter d <sub>2</sub>       | 85.5          | mm   |
| Segment length W <sub>3</sub> | 107.5         | mm   |

# Dimensional & Integration Overview

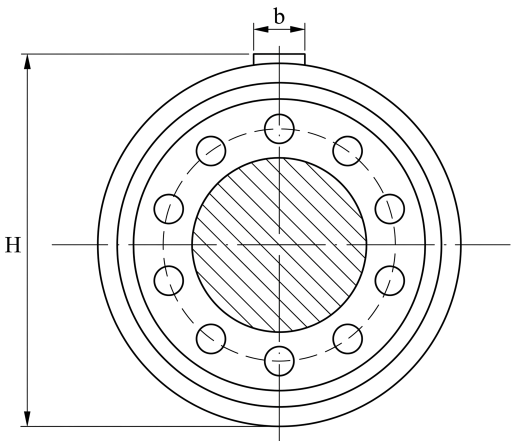
## Mechanical Overview

| PARAMETER                     | VALUE | UNIT |
|-------------------------------|-------|------|
| Nominal diameter              | 87    | mm   |
| Ball Screw Lead               | 15    | mm   |
| Body diameter D               | 175   | mm   |
| Overall length W              | 215   | mm   |
| Segment length W <sub>1</sub> | 76    | mm   |
| Diameter d <sub>0</sub>       | 87    | 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.