



Image may differ from product. See technical specification for details.

## 81215 TN

### Single row cylindrical roller thrust bearing, single direction

Single row cylindrical roller thrust bearings are designed to accommodate heavy axial loads and peak loads in one direction, but not radial loads. They provide a high degree of stiffness and require little axial space. They are mainly used in applications where thrust ball bearings do not have sufficient load carrying capacity. An important feature is the

separable design, which facilitates mounting and enables the bearing components to be interchanged.

- High axial load carrying capacity
- High stiffness
- Long service life
- Require little axial space
- Separable design

Overview

Dimensions

|                  |        |
|------------------|--------|
| Bore diameter    | 75 mm  |
| Outside diameter | 110 mm |
| Height           | 27 mm  |

Performance

|                           |             |
|---------------------------|-------------|
| Basic dynamic load rating | 137 kN      |
| Basic static load rating  | 490 kN      |
| Reference speed           | 1 200 r/min |
| Limiting speed            | 2 400 r/min |

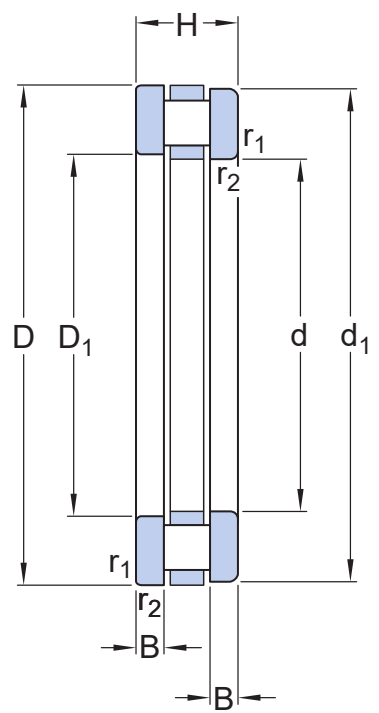
Properties

|                       |                  |
|-----------------------|------------------|
| Bearing part          | Complete bearing |
| Axial load capability | Single-direction |
| Number of rows        | 1                |
| Cage                  | Non-metallic     |
| Tolerance class       | Normal           |
| Material, bearing     | Bearing steel    |
| Coating               | Without          |

Logistics

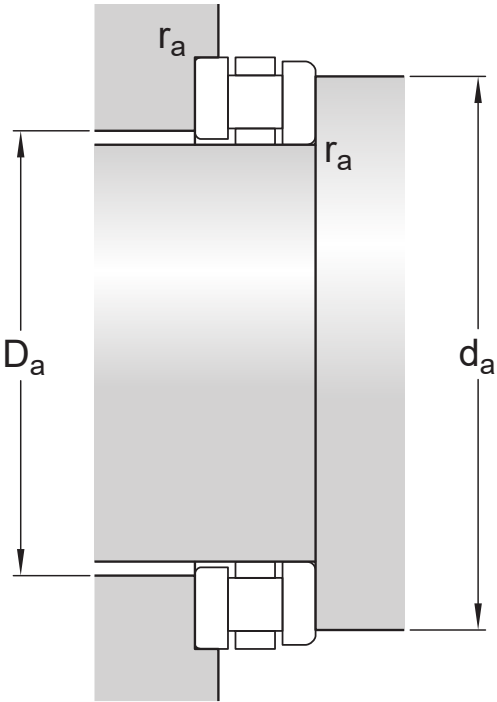
|                    |          |
|--------------------|----------|
| Product net weight | 0.81 kg  |
| UNSPSC code        | 31171505 |

Technical specification



Dimensions

|                  |           |                                  |
|------------------|-----------|----------------------------------|
| d                | 75 mm     | Bore diameter                    |
| D                | 110 mm    | Outside diameter                 |
| H                | 27 mm     | Height                           |
| d <sub>1</sub>   | 110 mm    | Outside diameter shaft washer    |
| D <sub>1</sub>   | 77 mm     | Bore diameter housing washer     |
| B                | 8 mm      | Height shaft washer              |
| r <sub>1,2</sub> | min. 1 mm | Chamfer dimension housing washer |



Abutment dimensions

|       |             |                           |
|-------|-------------|---------------------------|
| $d_a$ | min. 106 mm | Abutment diameter shaft   |
| $D_a$ | max. 79 mm  | Abutment diameter housing |
| $r_a$ | max. 1 mm   | Fillet radius             |

Calculation data

|                           |       |             |
|---------------------------|-------|-------------|
| Basic dynamic load rating | C     | 137 kN      |
| Basic static load rating  | $C_0$ | 490 kN      |
| Fatigue load limit        | $P_u$ | 50 kN       |
| Reference speed           |       | 1 200 r/min |
| Limiting speed            |       | 2 400 r/min |
| Minimum axial load factor | A     | 0.0192      |

Included products

|                                 |            |
|---------------------------------|------------|
| Roller and cage thrust assembly | K 81215 TN |
| Shaft washer                    | WS 81215   |
| Housing washer                  | GS 81215   |

## Tolerances and clearances

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### GENERAL BEARING SPECIFICATIONS

- Tolerances: [table](#), [table](#), [values](#)

### DESIGN CONSIDERATIONS

- [table](#)

BEARING INTERFACES

- [Seat tolerances for standard conditions](#)

Compatible products

| Component                                                           |                            |
|---------------------------------------------------------------------|----------------------------|
| Cylindrical roller and cage thrust assembly                         | <a href="#">K 81215 TN</a> |
| WS shaft washer for cylindrical and needle roller thrust bearings   | <a href="#">WS 81215</a>   |
| GS housing washer for cylindrical and needle roller thrust bearings | <a href="#">GS 81215</a>   |

More Information

|                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div> <b>Product details</b></div> <div><a href="#">Designs and variants</a></div> <div><a href="#">General bearing specifications</a></div> <div><a href="#">Loads</a></div> <div><a href="#">Temperature limits</a></div> <div><a href="#">Permissible speed</a></div> <div><a href="#">Design considerations</a></div> <div><a href="#">Designation system</a></div> | <div> <b>Engineering information</b></div> <div><a href="#">Principles of rolling bearing selection</a></div> <div><a href="#">General bearing knowledge</a></div> <div><a href="#">Bearing selection process</a></div> <div><a href="#">Bearing failure and how to prevent it</a></div> | <div> <b>Tools</b></div> <div><a href="#">SimPro Quick</a></div> <div><a href="#">SKF Product select</a></div> <div><a href="#">Bearing Frequency Calculator</a></div> <div><a href="#">LubeSelect for SKF greases</a></div> <div><a href="#">Heater selection tool</a></div> |
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