



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

## 1208 EKTN9

### Self-aligning ball bearing with tapered bore

Self-aligning ball bearings, with a tapered bore, have two rows of balls, a common sphered raceway in the outer ring and two deep uninterrupted raceway grooves in the inner ring. They are insensitive to angular misalignment of the shaft relative to the housing, which can be caused, for example, by shaft deflection. The tapered bore facilitates ease of mounting via adapter sleeves or withdrawal sleeves.

- Ease of mounting via adapter sleeves or withdrawal sleeves
- Accommodate static and dynamic misalignment
- Excellent high-speed performance
- Excellent light load performance

- Low friction

Overview

Dimensions

|                  |       |
|------------------|-------|
| Bore diameter    | 40 mm |
| Outside diameter | 80 mm |
| Width            | 18 mm |

Performance

|                           |              |
|---------------------------|--------------|
| Basic dynamic load rating | 19.9 kN      |
| Basic static load rating  | 6.95 kN      |
| Reference speed           | 18 000 r/min |
| Limiting speed            | 11 000 r/min |

Properties

|                                      |               |
|--------------------------------------|---------------|
| Retaining feature, inner ring        | None          |
| Locating feature, bearing outer ring | None          |
| Number of rows                       | 2             |
| Bore type                            | Tapered 1:12  |
| Cage                                 | Non-metallic  |
| Radial internal clearance            | CN            |
| Tolerance class                      | Normal        |
| Material, bearing                    | Bearing steel |
| Coating                              | Without       |
| Sealing                              | Without       |
| Lubricant                            | None          |
| Relubrication feature                | Without       |

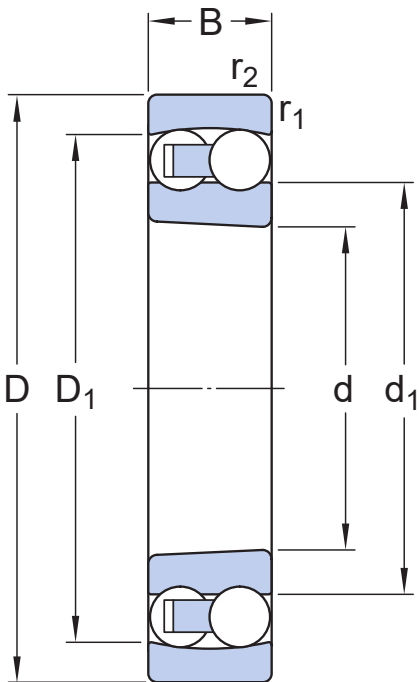
Logistics

|                    |             |
|--------------------|-------------|
| Product net weight | 0.405 kg    |
| eClass code        | 23-05-08-06 |
| UNSPSC code        | 31171532    |

Technical specification

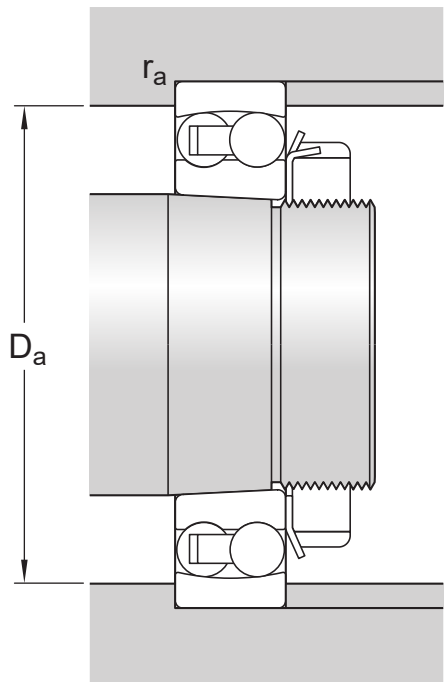
Bore type

Tapered 1:12



Dimensions

|                  |             |                              |
|------------------|-------------|------------------------------|
| d                | 40 mm       | Bore diameter                |
| D                | 80 mm       | Outside diameter             |
| B                | 18 mm       | Width                        |
| d <sub>1</sub>   | ≈ 53.85 mm  | Shoulder diameter inner ring |
| D <sub>1</sub>   | ≈ 67.5 mm   | Shoulder diameter outer ring |
| r <sub>1,2</sub> | min. 1.1 mm | Chamfer dimension            |



Abutment dimensions

|                |             |                           |
|----------------|-------------|---------------------------|
| D <sub>a</sub> | max. 73 mm  | Abutment diameter housing |
| r <sub>a</sub> | max. 1.1 mm | Fillet radius             |

Calculation data

|                                  |                |              |
|----------------------------------|----------------|--------------|
| Basic dynamic load rating        | C              | 19.9 kN      |
| Basic static load rating         | C <sub>0</sub> | 6.95 kN      |
| Fatigue load limit               | P <sub>u</sub> | 0.355 kN     |
| Reference speed                  |                | 18 000 r/min |
| Limiting speed                   |                | 11 000 r/min |
| Permissible angular misalignment | α              | 2.5 °        |
| Calculation factor               | k <sub>r</sub> | 0.04         |
| Limiting value                   | e              | 0.22         |
| Calculation factor               | Y <sub>0</sub> | 2.8          |
| Calculation factor               | Y <sub>1</sub> | 2.9          |
| Calculation factor               | Y <sub>2</sub> | 4.5          |

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- [Tolerances](#): Normal, JS7
- [Radial internal clearance](#): table

BEARING INTERFACES

- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fits](#)

Compatible products

Recommended product

|                                                                                      |                        |
|--------------------------------------------------------------------------------------|------------------------|
| Adapter sleeve with KM lock nut and MB lock washer, metric dimensions                | <a href="#">H 208</a>  |
| Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore | <a href="#">HE 208</a> |

More Information

|  Product details |  Engineering information |  Tools |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <a href="#">Designs and variants</a>                                                              | <a href="#">Principles of rolling bearing selection</a>                                                   | <a href="#">SKF Product select - Select and evaluate bearing</a>                          |
| <a href="#">General bearing specifications</a>                                                    | <a href="#">General bearing knowledge</a>                                                                 | <a href="#">SKF Product select - Combine housing with bearing</a>                         |
| <a href="#">Loads</a>                                                                             | <a href="#">Bearing selection process</a>                                                                 | <a href="#">SimPro Quick</a>                                                              |
| <a href="#">Temperature limits</a>                                                                | <a href="#">Bearing interfaces</a>                                                                        | <a href="#">LubeSelect for SKF greases</a>                                                |
| <a href="#">Permissible speed</a>                                                                 | <a href="#">Seat tolerances for standard conditions</a>                                                   | <a href="#">Heater selection tool</a>                                                     |
| <a href="#">Design considerations</a>                                                             | <a href="#">Selecting internal clearance</a>                                                              | <a href="#">Drive-up Method Program</a>                                                   |
| <a href="#">Mounting</a>                                                                          | <a href="#">Lubrication</a>                                                                               | <a href="#">Oil Injection Method Program</a>                                              |
| <a href="#">Designation system</a>                                                                | <a href="#">Sealing, mounting and dismounting</a>                                                         | <a href="#">Tool and Accessory Selector for sleeves and shafts</a>                        |
|                                                                                                   | <a href="#">Bearing failure and how to prevent it</a>                                                     |                                                                                           |





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