

2318 KM



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.

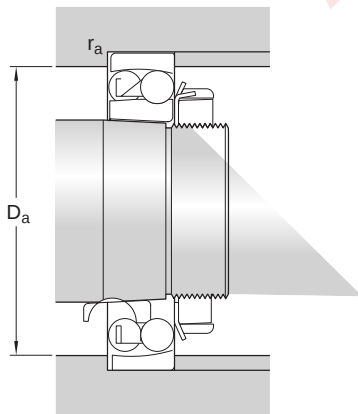
- Ease of mounting via adapter sleeves or withdrawal sleeves
- Accommodate static and dynamic misalignment
- Excellent high-speed performance
- Excellent light load performance
- Low friction

Bore type

Tapered 1:12



| Dimensions       |            |                              |
|------------------|------------|------------------------------|
| d                | 90 mm      | Bore diameter                |
| D                | 190 mm     | Outside diameter             |
| B                | 64 mm      | Width                        |
| d <sub>1</sub>   | ≈ 121 mm   | Shoulder diameter inner ring |
| D <sub>1</sub>   | ≈ 162.2 mm | Shoulder diameter outer ring |
| r <sub>1,2</sub> | min. 3 mm  | Chamfer dimension            |



| Abutment dimensions |             |                           |
|---------------------|-------------|---------------------------|
| D <sub>a</sub>      | max. 176 mm | Abutment diameter housing |
| r <sub>a</sub>      | max. 3 mm   | Fillet radius             |

## Calculation data

|                                  |                |             |
|----------------------------------|----------------|-------------|
| Basic dynamic load rating        | C              | 151 kN      |
| Basic static load rating         | C <sub>0</sub> | 57 kN       |
| Fatigue load limit               | P <sub>u</sub> | 2.5 kN      |
| Reference speed                  |                | 6 300 r/min |
| Limiting speed                   |                | 4 500 r/min |
| Permissible angular misalignment | $\alpha$       | 3 °         |
| Calculation factor               | k <sub>r</sub> | 0.05        |
| Limiting value                   | e              | 0.37        |
| Calculation factor               | Y <sub>0</sub> | 1.8         |
| Calculation factor               | Y <sub>1</sub> | 1.7         |
| Calculation factor               | Y <sub>2</sub> | 2.6         |

## Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, JS7
- Radial internal clearance: table

### BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fits