

22320 EK



Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. The design includes features to facilitate relubrication. The bearings can be used in a modular system, including housings, sleeves and nuts.

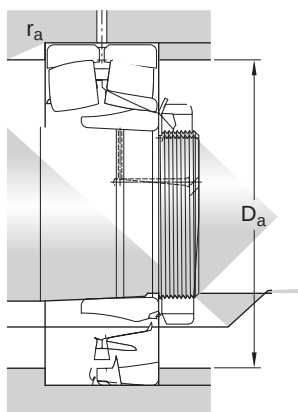
- Accommodate misalignment
- High load carrying capacity
- Relubrication features
- Low friction and long service life
- Increased wear resistance

Bore type

Tapered 1:12



| Dimensions        |                |                                                |
|-------------------|----------------|------------------------------------------------|
| d                 | 100 mm         | Bore diameter                                  |
| t <sub>Δdmp</sub> | 0.0 – 0.035 mm | Deviation limits of mid-range bore diameter    |
| t <sub>ΔSL</sub>  | 0.0 – 0.035 mm | Deviation limits of tapered slope              |
| D                 | 215 mm         | Outside diameter                               |
| t <sub>ΔDmp</sub> | -0.03 – 0.0 mm | Deviation limits of mid-range outside diameter |
| B                 | 73 mm          | Width                                          |
| t <sub>ΔBs</sub>  | -0.08 – 0.0 mm | Deviation limits of ring width                 |
| d <sub>2</sub>    | ≈ 130 mm       | Shoulder diameter of inner ring                |
| D <sub>1</sub>    | ≈ 184 mm       | Shoulder/recess diameter of outer ring         |
| b                 | 11.1 mm        | Width of lubrication groove                    |
| K                 | 6 mm           | Diameter of lubrication hole                   |
| r <sub>1,2</sub>  | min. 3 mm      | Chamfer dimension                              |
| Normal            |                | ISO tolerance class for dimensions             |



### Abutment dimensions

$D_a$  max. 201 mm Diameter of housing abutment

$r_a$  max. 2.5 mm Radius of fillet

### Calculation data

|                           |              |             |
|---------------------------|--------------|-------------|
| AGA performance class     | AGA Explorer |             |
| Basic dynamic load rating | C            | 847 kN      |
| Basic static load rating  | $C_0$        | 950 kN      |
| Fatigue load limit        | $P_u$        | 88 kN       |
| Reference speed           |              | 2 400 r/min |
| Limiting speed            |              | 3 000 r/min |
| Limiting value            | e            | 0.33        |
| Calculation factor        | $Y_1$        | 2           |
| Calculation factor        | $Y_2$        | 3           |
| Calculation factor        | $Y_0$        | 2           |

### Tolerances of run-out

|                                                            |           |                   |
|------------------------------------------------------------|-----------|-------------------|
| Range of section height at inner ring of assembled bearing | $t_{Kia}$ | 6 $\mu\text{m}$   |
| Maximum run-out of inner ring side face to the bore        | $t_{Sd}$  | 9 $\mu\text{m}$   |
| Range of section height at outer ring of assembled bearing | $t_{Kea}$ | 15 $\mu\text{m}$  |
| Perpendicularity of outer ring outside surface             | $t_{SD}$  | 5.5 $\mu\text{m}$ |
| ISO tolerance class for geol tolerances                    |           | P5                |

Radial internal clearance

|                           |        |
|---------------------------|--------|
| Minimum initial clearance | 80 µm  |
| Maximum initial clearance | 110 µm |

Mounting information

|                                           |          |       |
|-------------------------------------------|----------|-------|
| Recommended tightening angle for lock nut | $\alpha$ | 150 ° |
|-------------------------------------------|----------|-------|

Tolerances of run-out

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P6, P5, tapered bore 1:12, tapered bore 1:30
- Radial internal clearance: cylindrical bore, tapered bore

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit