



## SKF 7316 BECBP

### Single row angular contact ball bearing

These single row angular contact ball bearings can accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They can operate at high speeds and, depending on the variant, even very high speeds. They are more suitable than deep groove ball bearings for supporting large axial forces acting in one direction.

## Technical specifications

| Dimensions  |              |
|---|--------------|
| Bore diameter                                     | 80 mm        |
| Deviation limits of mid-range bore diameter       | -0.012..0 mm |
| Outside diameter                                  | 170 mm       |
| Deviation limits of mid-range outside diameter    | -0.018..0 mm |
| Width   | 39 mm        |
| Deviation limits of ring width                    | -0.15..0 mm  |
| Shoulder diameter of inner ring (large side face) | 115.2 mm     |
| Shoulder diameter of inner ring (small side face) | 97.07 mm     |
| Shoulder diameter of outer ring (large side face) | 136.75 mm    |
| Distance side face to pressure point              | 72 mm        |
| Chamfer dimension                                 | 2.1 mm       |
| Chamfer dimension                                 | 1.1 mm       |
| ISO tolerance class for dimensions                | P6           |
| Contact angle                                     | 40 °         |

| Abutment dimensions          |        |
|------------------------------|--------|
| Diameter of shaft abutment   | 92 mm  |
| Abutment diameter housing    | 158 mm |
| Diameter of housing abutment | 163 mm |
| Radius of fillet             | 2 mm   |
| Radius of fillet             | 1 mm   |

| Calculation data                                |              |
|---|--------------|
| SKF performance class                           | SKF Explorer |
| Basic dynamic load rating                       | 143 kN       |
| Basic static load rating                        | 118 kN       |
| Fatigue load limit                              | 4.5 kN       |
| Reference speed                                 | 5000 r/min   |
| Limiting speed                                  | 5000 r/min   |
| Minimum axial load factor                       | 0.22         |
| Minimum radial load factor                      | 0.1          |
| Limiting value                                  | 1.1          |
| Calculation factor (single, tandem)             | 0.35         |
| Calculation factor (single, tandem)             | 0.26         |
| Calculation factor (single, tandem)             | 0.57         |
| Calculation factor (back-to-back, face-to-face) | 0.57         |
| Calculation factor (back-to-back, face-to-face) | 0.52         |
| Calculation factor (back-to-back, face-to-face) | 0.55         |
| Calculation factor (back-to-back, face-to-face) | 0.93         |

| Tolerances of run-out                                      |       |
|--|-------|
| Range of section height at inner ring of assembled bearing | 5 μm  |
| Maximum run-out of inner ring side face to the bore        | 8 μm  |
| Range of section height at outer ring of assembled bearing | 13 μm |
| Perpendicularity of outer ring outside surface             | 5 μm  |
| ISO tolerance class for geometrical tolerances             | P5    |

| <b>Performance</b>        |              |
|---------------------------|--------------|
| Basic dynamic load rating | 143 kN       |
| Basic static load rating  | 118 kN       |
| Reference speed           | 5000 r/min   |
| Limiting speed            | 5000 r/min   |
| SKF performance class     | SKF Explorer |

| <b>Properties</b>                            |                                    |
|--|------------------------------------|
| Contact type                                 | Normal contact (two-point contact) |
| Number of rows                               | 1                                  |
| Locating feature, bearing outer ring         | Without                            |
| Ring type                                    | One-piece inner and outer rings    |
| Cage   | Non-metallic                       |
| Matched arrangement                          | No                                 |
| Universal matching bearing                   | Yes                                |
| Axial internal clearance                     | Not applicable                     |
| Matched condition (axial clearance/ preload) | Axial clearance CB                 |
| Tolerance class                              | Class 6 (P6)                       |
| Material, bearing                            | Bearing steel                      |
| Coating                                      | Without                            |
| Sealing                                      | Without                            |
| Lubricant                                    | None                               |
| Relubrication feature                        | Without                            |
| Indicative carbon footprint for new product  | 13.1 kg CO <sub>2</sub> e          |

| <b>Logistics</b>   |             |
|--------------------|-------------|
| Product net weight | 3.64 kg     |
| eClass code        | 23-05-08-03 |
| UNSPSC code        | 31171531    |

**SKF drawings**

