



## SKF 7309 BE-2RZP

Single row angular contact ball bearing with 40° contact angle and non-contact

These single row angular contact ball bearings, with 40° contact angle and non-contact seals on both sides, accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They have a ball-centred glass-fibre reinforced PA66 cage. They are more suitable than deep groove ball bearings for supporting large axial forces acting in one direction.

### Technical specifications

Dimensions	
Bore diameter	45 mm
Deviation limits of mid-range bore diameter	-0.012..0 mm
Outside diameter	100 mm
Deviation limits of mid-range outside diameter	-0.015..0 mm
Width	25 mm
Deviation limits of ring width	-0.12..0 mm
Shoulder diameter of inner ring (large side face)	66.5 mm
Shoulder diameter of inner ring (small side face)	55.25 mm
Recess diameter of outer ring (large side face)	81.4 mm
Recess diameter of outer ring (small side face)	90.8 mm
Distance side face to pressure point	43 mm
Chamfer dimension	1.5 mm
Chamfer dimension	1 mm
ISO tolerance class for dimensions	Normal
Contact angle	40 °

Abutment dimensions	
Diameter of shaft abutment	54 mm
Diameter of shaft abutment	66 mm
Abutment diameter housing	91 mm
Diameter of housing abutment	94.4 mm
Radius of fillet	1.5 mm
Radius of fillet	1 mm

Calculation data	
Basic dynamic load rating	55.9 kN
Basic static load rating	37.5 kN
Fatigue load limit	1.6 kN
Reference speed	9000 r/min
Limiting speed	6700 r/min
Minimum axial load factor	0.03
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	15 µm
Range of section height at outer ring of assembled bearing	35 µm
ISO tolerance class for geometrical tolerances	Normal

Performance	

Basic dynamic load rating	55.9 kN
Basic static load rating	37.5 kN
Reference speed	9000 r/min
Limiting speed	6700 r/min

<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	No
Axial internal clearance	Not applicable
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Seal on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	Without
Indicative carbon footprint for new product	3 kg CO <sub>2</sub> e

<b>Logistics</b>	
Product net weight	0.826 kg
eClass code	23-05-08-03
UNSPSC code	31171531

# SKF drawings

