



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

7309 BE-2RZP

Single row angular contact ball bearing with 40° contact angle and non-contact seals on both sides

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.

- 40° contact angle
- Integral sealing prolongs bearing service life
- Glass-fibre reinforced PA66 cage
- Accommodate relatively high radial loads and large unilateral axial loads

Overview

Dimensions

Bore diameter	45 mm
Outside diameter	100 mm
Width	25 mm
Contact angle	40 °

Performance

Basic dynamic load rating	55.9 kN
Basic static load rating	37.5 kN
Reference speed	8 500 r/min
Limiting speed	6 700 r/min

Properties

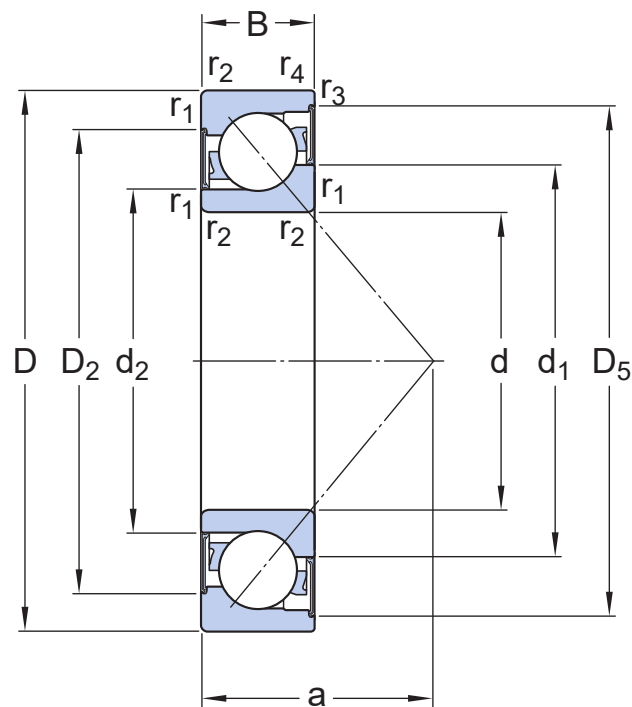
Contact type	Normal contact (two-point contact)
Number of rows	1
Locating feature, bearing outer ring	None
Ring type	One-piece inner and outer rings
Cage	Non-metallic
Matched arrangement	No
Universal matching bearing	No
Axial internal clearance	Not applicable
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Seal on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	Without

Logistics

Product net weight	0.826 kg
eClass code	23-05-08-03

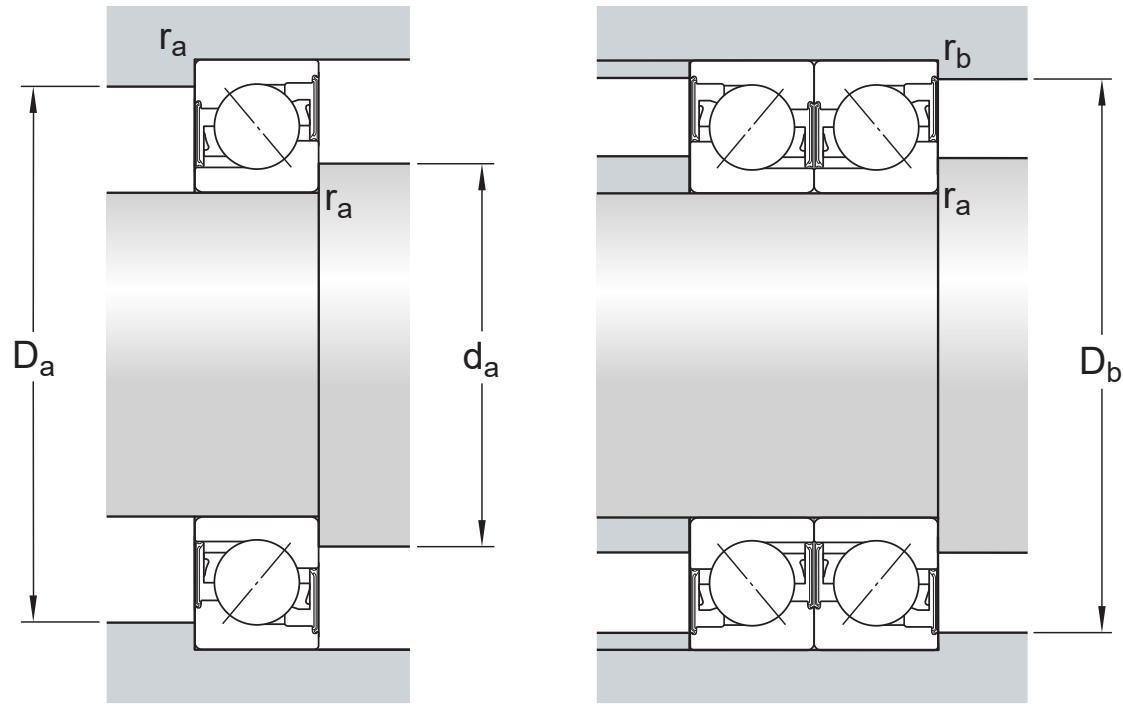
UNSPSC code	31171531
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Technical specification



Dimensions

d	45 mm	Bore diameter
D	100 mm	Outside diameter
B	25 mm	Width
d ₁	≈ 66.5 mm	Shoulder diameter of inner ring (large side face)
d ₂	≈ 55.25 mm	Shoulder diameter of inner ring (small side face)
D ₂	≈ 81.4 mm	Recess diameter of outer ring (large side face)
D ₅	≈ 90.8 mm	Recess diameter of outer ring (small side face)
a	43 mm	Distance side face to pressure point
r _{1,2}	min. 1.5 mm	Chamfer dimension
r _{3,4}	min. 1 mm	Chamfer dimension



Abutment dimensions

d_a	min. 54 mm	Diameter of shaft abutment
d_a	max. 66 mm	Diameter of shaft abutment
D_a	max. 91 mm	Abutment diameter housing
D_b	max. 94.4 mm	Diameter of housing abutment
r_a	max. 1.5 mm	Radius of fillet
r_b	max. 1 mm	Radius of fillet

Calculation data

Basic dynamic load rating	C	55.9 kN
Basic static load rating	C_0	37.5 kN
Fatigue load limit	P_u	1.6 kN
Reference speed		8 500 r/min
Limiting speed		6 700 r/min
Minimum axial load factor	A	0.0268
Minimum radial load factor	k_r	0.1
Limiting value	e	1.14

SINGLE BEARING OR BEARING PAIR ARRANGED IN TANDEM

Calculation factor (single, tandem)	X	0.35
Calculation factor (single, tandem)	Y_0	0.26
Calculation factor (single, tandem)	Y_2	0.57

BEARING PAIR ARRANGED BACK-TO-BACK OR FACE-TO-FACE

Calculation factor (back-to-back, face-to-face)	X	0.57
Calculation factor (back-to-back, face-to-face)	Y_0	0.52
Calculation factor (back-to-back, face-to-face)	Y_1	0.55
Calculation factor (back-to-back, face-to-face)	Y_2	0.93

Tolerances and clearances




GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Internal clearance: CA+CB+CC, G
- Preload: GA+GB+GC

BEARING INTERFACES

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

More Information

<div> Product details</div> <div><div>Designs and variants</div><div>General bearing specifications</div><div>Loads</div><div>Temperature limits</div><div>Permissible speed</div><div>Design considerations</div><div>Designation system</div></div>	<div><div> Engineering information</div><div><div>Principles of rolling bearing selection</div><div>General bearing knowledge</div><div>Bearing selection process</div><div>Bearing interfaces</div><div>Seat tolerances for standard conditions</div><div>Selecting internal clearance or preload</div><div>Lubrication</div><div>Sealing, mounting and dismounting</div><div>Bearing failure and how to prevent it</div></div></div>	<div><div> Tools</div><div><div>SKF Product select</div><div>SimPro Quick</div><div>Bearing Frequency Calculator</div><div>LubeSelect for SKF greases</div><div>Heater selection tool</div><div>SKF mounting and dismounting instructions</div></div></div>
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