



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

7301 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	12 mm
Outside diameter	37 mm
Width	12 mm
Contact angle	40 °

Performance

Basic dynamic load rating	10.6 kN
Basic static load rating	5 kN
Reference speed	26 000 r/min
Limiting speed	20 000 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

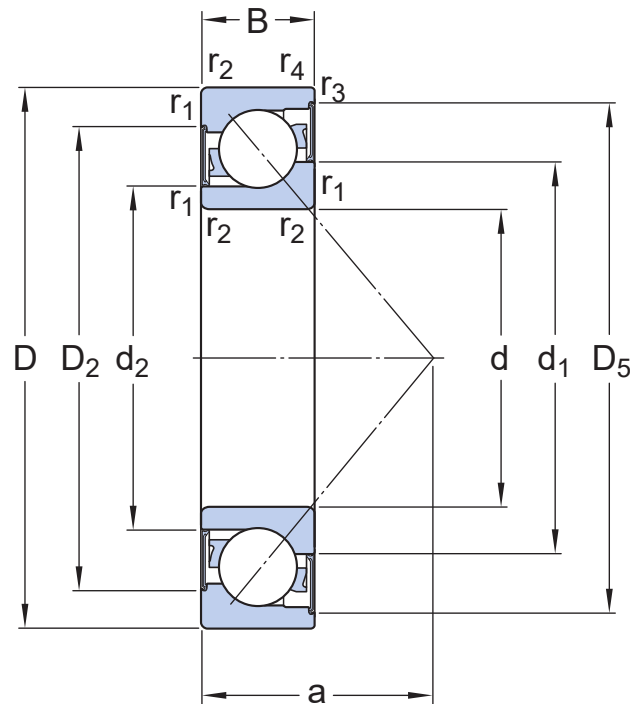
Logistics

Product net weight	0.062 kg
eClass code	23-05-08-03

UNSPSC code

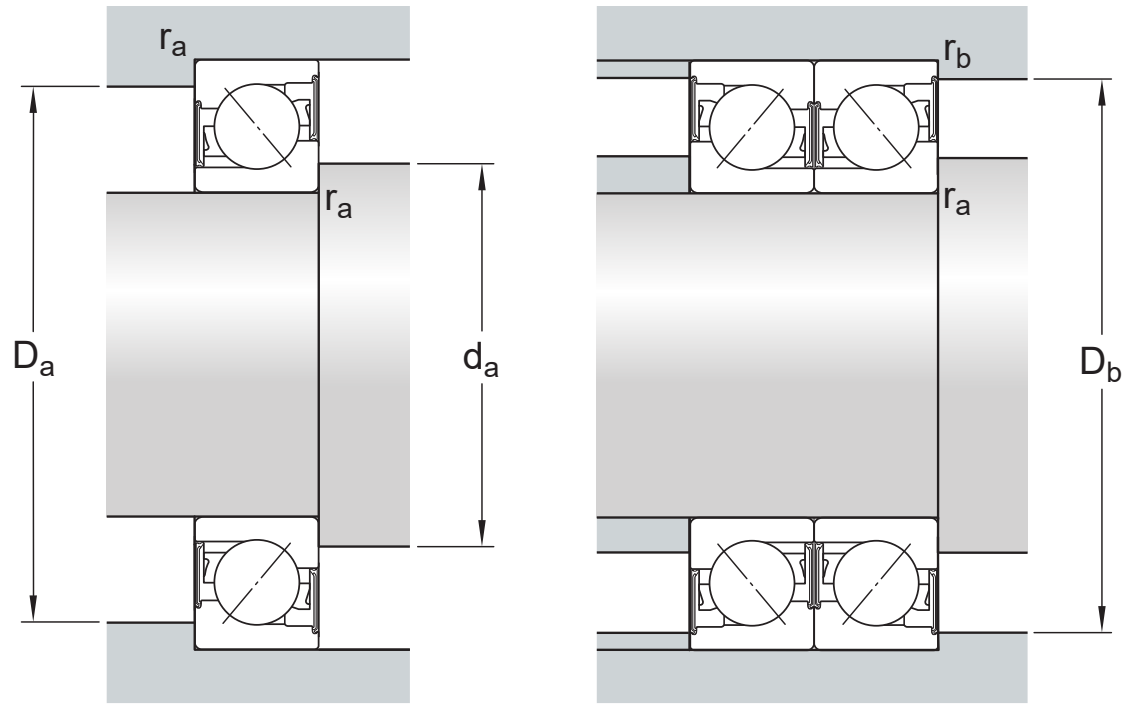
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Technical specification



Dimensions

d	12 mm	Bore diameter
D	37 mm	Outside diameter
B	12 mm	Width
d ₁	≈ 21.9 mm	Shoulder diameter of inner ring (large side face)
d ₂	≈ 16.95 mm	Shoulder diameter of inner ring (small side face)
D ₂	≈ 29.45 mm	Recess diameter of outer ring (large side face)
D ₅	≈ 33.5 mm	Recess diameter of outer ring (small side face)
a	16.3 mm	Distance side face to pressure point
r _{1,2}	min. 1 mm	Chamfer dimension
r _{3,4}	min. 0.6 mm	Chamfer dimension



Abutment dimensions

d_a	min. 17.6 mm	Diameter of shaft abutment
d_a	max. 21.5 mm	Diameter of shaft abutment
D_a	max. 31.4 mm	Abutment diameter housing
D_b	max. 32.8 mm	Diameter of housing abutment
r_a	max. 1 mm	Radius of fillet
r_b	max. 0.6 mm	Radius of fillet

Calculation data

Basic dynamic load rating	C	10.6 kN
Basic static load rating	C_0	5 kN
Fatigue load limit	P_u	0.208 kN
Reference speed		26 000 r/min
Limiting speed		20 000 r/min
Minimum axial load factor	A	5.37E-4
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

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