



7212 BECBY

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.

- High-speed capability
- Accommodate relatively high radial loads and large unilateral axial loads

Overview

Dimensions

Bore diameter	2.362 in
Outside diameter	4.331 in
Width	0.866 in

Performance

Basic dynamic load rating	13 713 lbf
Basic static load rating	11 240 lbf
Limiting speed	7 500 r/min
Reference speed	7 000 r/min
SKF performance class	SKF Explorer

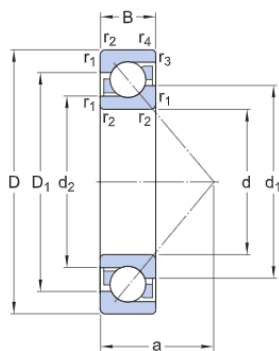
Properties

Axial internal clearance	Not applicable
Cage	Sheet metal
Coating	Without
Contact type	Normal contact (two-point contact)
Locating feature, bearing outer ring	None
Lubricant	None
Matched arrangement	No
Material, bearing	Bearing steel
Number of rows	1
Relubrication feature	Without
Ring type	One-piece inner and outer rings
Sealing	Without
Universal matching bearing	Yes

Technical Specification

SKF performance class

SKF Explorer

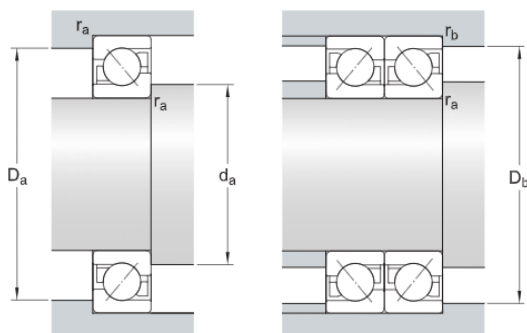


Dimensions

d	2.362 in	Bore diameter
D	4.331 in	Outside diameter
B	0.866 in	Width
d ₁	≈ 3.134 in	Shoulder diameter of inner ring (large side face)
d ₂	≈ 2.729 in	Shoulder diameter of inner ring (small side face)
D ₁	≈ 3.604 in	Shoulder diameter of outer ring (large side face)
a	1.85 in	Distance side face to pressure point
r _{1,2}	min. 0.059 in	Chamfer dimension
r _{3,4}	min. 0.039 in	Chamfer dimension

Abutment dimensions

d _a	min. 2.717 in	Diameter of shaft abutment
D _a	max. 3.976 in	Abutment diameter housing
D _b	max. 4.094 in	Diameter of housing abutment
r _a	max. 0.059 in	Radius of fillet
r _b	max. 0.039 in	Radius of fillet



Calculation data

Basic dynamic load rating	C	13 713 lbf
Basic static load rating	C ₀	11 240 lbf
Fatigue load limit	P _u	477 lbf
Reference speed		7 000 r/min
Limiting speed		7 500 r/min
Minimum axial load factor	A	0.0344
Minimum radial load factor	k _r	0.095
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

Mass

Mass	1.764 lb
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