



# 7210 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	1.969 in
Outside diameter	3.543 in
Width	0.787 in

### Performance

Basic dynamic load rating	8 992 lbf
Basic static load rating	6 969 lbf
Limiting speed	9 000 r/min
Reference speed	9 000 r/min
SKF performance class	SKF Explorer

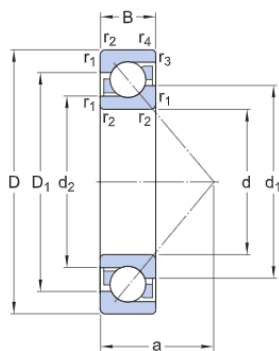
### Properties

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

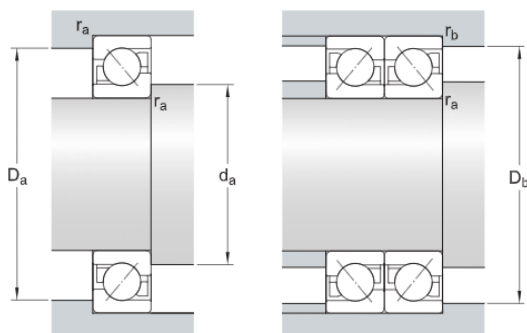


## Dimensions

d	1.969 in	Bore diameter
D	3.543 in	Outside diameter
B	0.787 in	Width
d <sub>1</sub>	≈ 2.589 in	Shoulder diameter of inner ring (large side face)
d <sub>2</sub>	≈ 2.271 in	Shoulder diameter of inner ring (small side face)
D <sub>1</sub>	≈ 2.959 in	Shoulder diameter of outer ring (large side face)
a	1.535 in	Distance side face to pressure point
r <sub>1,2</sub>	min. 0.043 in	Chamfer dimension
r <sub>3,4</sub>	min. 0.024 in	Chamfer dimension

## Abutment dimensions

d <sub>a</sub>	min. 2.244 in	Diameter of shaft abutment
D <sub>a</sub>	max. 3.268 in	Abutment diameter housing
D <sub>b</sub>	max. 3.378 in	Diameter of housing abutment
r <sub>a</sub>	max. 0.039 in	Radius of fillet
r <sub>b</sub>	max. 0.024 in	Radius of fillet



## Calculation data

Basic dynamic load rating	C	8 992 lbf
Basic static load rating	C <sub>0</sub>	6 969 lbf
Fatigue load limit	P <sub>u</sub>	297 lbf
Reference speed		9 000 r/min
Limiting speed		9 000 r/min
Minimum axial load factor	A	0.015
Minimum radial load factor	k <sub>r</sub>	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 <sub>0</sub>	0.26
Calculation factor (single, tandem)	Y <sub>2</sub>	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 <sub>0</sub>	0.52
Calculation factor (back-to-back, face-to-face)	Y <sub>1</sub>	0.55
Calculation factor (back-to-back, face-to-face)	Y <sub>2</sub>	0.93

Mass

Mass	1.036 lb
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