



## Overview

## **7318 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

#### **Dimensions**

Bore diameter	3.543 in
Outside diameter	7.48 in
Width	1.693 in

#### Performance

Basic dynamic load rating	37 318 lbf
Basic static load rating	32 822 lbf
Limiting speed	4 500 r/min
Reference speed	4 300 r/min
SKF performance class	SKF Explorer

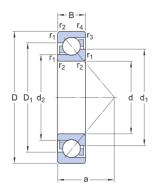
#### **Properties**

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



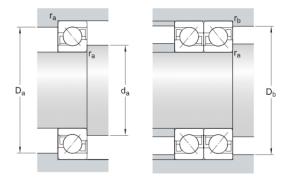
# Technical Specification

SKF performance class SKF Explorer



## Dimensions

d	3.543 in	Bore diameter
D	7.48 in	Outside diameter
В	1.693 in	Width
$d_1$	≈ 5.087 in	Shoulder diameter of inner ring (large side face)
d <sub>2</sub>	≈ 4.29 in	Shoulder diameter of inner ring (small side face)
$D_1$	≈ 6.028 in	Shoulder diameter of outer ring (large side face)
a	3.15 in	Distance side face to pressure point
r <sub>1,2</sub>	min. 0.118 in	Chamfer dimension
r <sub>3,4</sub>	min. 0.043 in	Chamfer dimension



## Abutment dimensions

d <sub>a</sub> min. 4.094 in	Diameter of shaft abutment
D <sub>a</sub> max. 6.929 in	Abutment diameter housing
D <sub>b</sub> max. 7.205 in	Diameter of housing abutment
r <sub>a</sub> max. 0.098 in	Radius of fillet
r <sub>b</sub> max. 0.039 in	Radius of fillet

## Calculation data



Basic dynamic load rating	С		37 318 lbf
Basic static load rating	$C_0$		32 822 lbf
Fatigue load limit	$P_{\rm u}$		1191 lbf
Reference speed			4 300 r/min
Limiting speed			4 500 r/min
Minimum axial load factor	А		0.333
Minimum radial load factor	$k_r$		0.1
Limiting value	е		1.14
Single bearing or bearing pair arranged in tandem			
Calculation factor (single, tandem)		Χ	0.35
Calculation factor (single, tandem)		$Y_0$	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)		Χ	0.57
Calculation factor (back-to-back, face-to-face)		Y <sub>0</sub>	0.52
Calculation factor (back-to-back, face-to-face)		$Y_1$	0.55
Calculation factor (back-to-back, face-to-face)		Y <sub>2</sub>	0.93
Mass			
Mass			11.464 lb



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