

Overview

7319 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 3.74 in Outside diameter 7.874 in Width 1.772 in

Performance

Basic dynamic load rating	40 466 lbf
Basic static load rating	36 644 lbf
Limiting speed	4 300 r/min
Reference speed	4 000 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

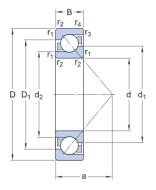




SKF Explorer

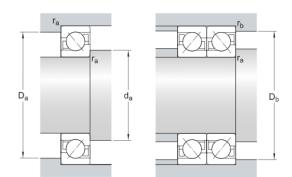
Technical Specification

SKF performance class



Dimensions

Bore diameter	3.74 in	d
Outside diameter	7.874 in	D
Width	1.772 in	В
Shoulder diameter of inner ring (large side face)	≈ 5.362 in	d ₁
Shoulder diameter of inner ring (small side face)	≈ 4.524 in	d ₂
Shoulder diameter of outer ring (large side face)	≈ 6.348 in	D ₁
Distance side face to pressure point	3.307 in	а
Chamfer dimension	2 min. 0.118 in	r _{1,2}
Chamfer dimension	, min. 0.043 in	r _{3,4}



Abutment dimensions

d _a min. 4.291 in	Diameter of shaft abutment
D_a max. 7.323 in	Abutment diameter housing
D _b max. 7.598 in	Diameter of housing abutment
r _a max. 0.098 in	Radius of fillet
r _b max. 0.039 in	Radius of fillet

Calculation data



Basic dynamic load rating	С	40 466 lbf
Basic static load rating	C ₀	36 644 lbf
Fatigue load limit	Pu	1 281 lbf
Reference speed		4 000 r/min
Limiting speed		4 300 r/min
Minimum axial load factor	А	0.406
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)	Х	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)	Х	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 13.3	38 lb
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