

# 3319 A



## Double row angular contact ball bearing

Double row angular contact ball bearings correspond, in their design and operation, to a pair of single row angular contact ball bearings in a back-to-back arrangement, while requiring less axial space. They can operate at high speeds and are more suitable than deep groove ball bearings for supporting large axial forces in both directions.

- High-speed capability
- Accommodate relatively high radial loads, high axial loads in both directions and tilting moments
- Suitable where a stiff bearing arrangement is required
- Require less axial space than equivalent pair of single row angular contact ball bearings

## Overview

### Dimensions

Bore diameter	95 mm
Outside diameter	200 mm
Width	77.8 mm
Contact angle	30 °

### Performance

Basic dynamic load rating	240 kN
Basic static load rating	216 kN
Reference speed	3 600 r/min
Limiting speed	3 200 r/min
SKF performance class	SKF Explorer

### Properties

Contact type	Normal contact (two-point contact)
Number of rows	2
Locating feature, bearing outer ring	None
Ring type	One-piece inner and outer rings
Cage	Sheet metal
Arrangement of contact angle (double-row bearing)	Back-to-back (0)
Matched arrangement	No
Universal matching bearing	No
Axial internal clearance	CN

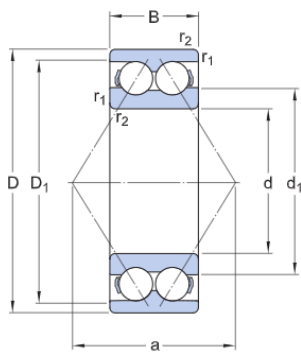
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

# Technical Specification

SKF performance class

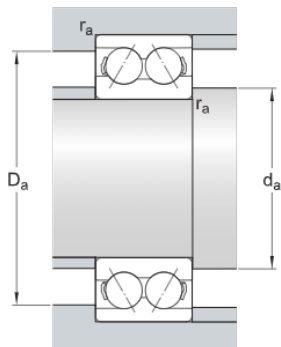
SKF Explorer

## Dimensions



d	95 mm	Bore diameter
D	200 mm	Outside diameter
B	77.8 mm	Width
d <sub>1</sub>	≈ 127.07 mm	Shoulder diameter inner ring
D <sub>1</sub>	≈ 175.5 mm	Shoulder diameter outer ring
r <sub>1,2</sub>	min. 3 mm	Chamfer dimension inner ring
a	118 mm	Distance pressure point(s)

## Abutment dimensions



d <sub>a</sub>	min. 109 mm	Abutment diameter shaft
D <sub>a</sub>	max. 186 mm	Abutment diameter housing
r <sub>a</sub>	max. 2.5 mm	Fillet radius

## Calculation data

Basic dynamic load rating	C	240 kN
Basic static load rating	C <sub>0</sub>	216 kN
Fatigue load limit	P <sub>u</sub>	7.5 kN
Reference speed		3 600 r/min

Limiting speed		3 200 r/min
Calculation factor	$k_r$	0.07
Limiting value	$e$	0.8
Calculation factor	$X$	0.63
Calculation factor	$Y_0$	0.66
Calculation factor	$Y_1$	0.78
Calculation factor	$Y_2$	1.24

## Mass

Mass bearing		11 kg
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