

# 3204 A-2RS1TN9/MT33



## Double row angular contact ball bearing with seals or shields

Double row angular contact ball bearings, with seals or shields, correspond to a pair of single row angular contact ball bearings in a back-to-back arrangement, while requiring less axial space. Depending on the sealing execution, 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
- Integral sealing prolongs bearing service life

## Overview

### Dimensions

Bore diameter	20 mm
Contact angle	30 °
Outside diameter	47 mm
Width	20.6 mm

### Performance

Basic dynamic load rating	20.4 kN
Basic static load rating	12.9 kN
Limiting speed	10 000 r/min
SKF performance class	SKF Explorer

### Properties

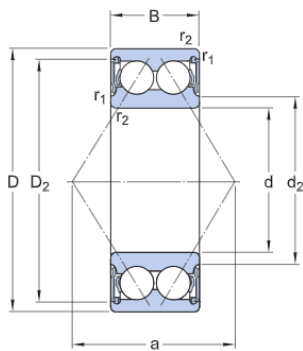
Arrangement of contact angle (double-row bearing)	Back-to-back (0)
Axial internal clearance	CN
Cage	Non-metallic
Coating	Without
Contact type	Normal contact (two-point contact)
Locating feature, bearing outer ring	None
Lubricant	Grease
Matched arrangement	No

Material, bearing	Bearing steel
Number of rows	2
Relubrication feature	Without
Ring type	One-piece inner and outer rings
Sealing	Seal on both sides
Sealing type	Contact
Universal matching bearing	No

# Technical Specification

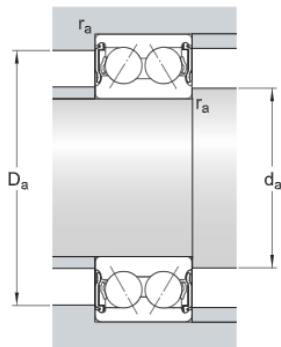
SKF performance class

SKF Explorer



## Dimensions

d	20 mm	Bore diameter
D	47 mm	Outside diameter
B	20.6 mm	Width
d <sub>2</sub>	≈ 27.7 mm	Recess diameter inner ring shoulder
D <sub>2</sub>	≈ 40.9 mm	Recess diameter outer ring shoulder
r <sub>1,2</sub>	min. 1 mm	Chamfer dimension inner ring
a	28 mm	Distance pressure point(s)



## Abutment dimensions

d <sub>a</sub>	min. 25.6 mm	Abutment diameter shaft
d <sub>a</sub>	max. 27.5 mm	Abutment diameter shaft
D <sub>a</sub>	max. 41.4 mm	Abutment diameter housing
r <sub>a</sub>	max. 1 mm	Fillet radius

## Calculation data

Basic dynamic load rating	C	20.4 kN
Basic static load rating	C <sub>0</sub>	12.9 kN
Fatigue load limit	P <sub>u</sub>	0.55 kN
Limiting speed		10 000 r/min

Calculation factor	$k_r$	0.06
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		0.16 kg
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