



# 3203 A-2ZTN9/MT33D Double row angular contact ball bearing with seals or shields

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	17 mm
Outside diameter	40 mm
Width	17.5 mm
Contact angle	30 °

### Performance

Basic dynamic load rating	14.3 kN
Basic static load rating	8.8 kN
Reference speed	19 000 r/min
Limiting speed	16 000 r/min

### 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	Non-metallic
Arrangement of contact angle (double-row)	Back-to-back (O)

bearing)

Matched arrangement	No
Universal matching bearing	No
Axial internal clearance	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Shield on both sides
Sealing type	Non-contact
Lubricant	Grease
Relubrication feature	Without

# Technical Specification

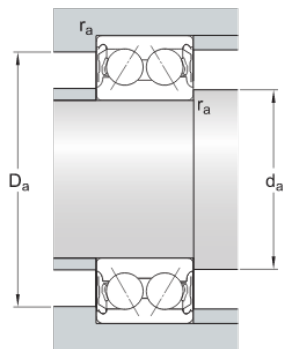


## Dimensions

d	17 mm	Bore diameter
D	40 mm	Outside diameter
B	17.5 mm	Width
$d_2$	≈ 23.3 mm	Recess diameter inner ring shoulder
$D_2$	≈ 34.95 mm	Recess diameter outer ring shoulder
$r_{1,2}$	min. 0.6 mm	Chamfer dimension inner ring
a	23 mm	Distance pressure point(s)

## Abutment dimensions

$d_a$	min. 21.4 mm	Abutment diameter shaft
$d_a$	max. 23 mm	Abutment diameter shaft
$D_a$	max. 35.6 mm	Abutment diameter housing
$r_a$	max. 0.6 mm	Fillet radius



## Calculation data

Basic dynamic load rating	C	14.3 kN
Basic static load rating	$C_0$	8.8 kN
Fatigue load limit	$P_u$	0.365 kN
Reference speed		19 000 r/min
Limiting speed		16 000 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		0.096 kg
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