



Image may differ from product. See technical specification for details.

7010 CD/P4ATBTB

Matched set of three super-precision, high-capacity, D design, single row angular contact ball bearings

These sets of three matched super-precision angular contact ball bearings are available as universally matchable bearings or as preconfigured arrangements. Sets arranged in back-to-back and tandem, or face-to-face and tandem, are available in different preload classes and correct mounting results in preload within a predetermined range, without the need for shims or similar devices. Sets of three bearings paired in tandem need to be mounted against a single bearing, or another set of bearings in tandem, to achieve the desired preload. The bore and outside diameters of the bearings are matched to within a maximum of one-third of the permitted diameter tolerance, to provide better load distribution than single universally matchable bearings.

- Very high running accuracy
- High axial and radial stiffness
- High axial and radial load carrying capacity

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	80 mm
Width	48 mm
Contact angle	15 °

Properties

Contact type	Normal contact (two-point contact)
Number of rows	3
Ring type	One-piece inner and outer rings
Design	High-capacity D
Universal matching bearing	No
Matched arrangement	<>>
Number of bearings in matched set	3
Matched condition (axial clearance/ preload)	Light preload
Tolerance class	P4A
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None

Perform

Basic

Basic

Note

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Logist

Produ

Next

eClass code

23-05-08-04

UNSPSC code

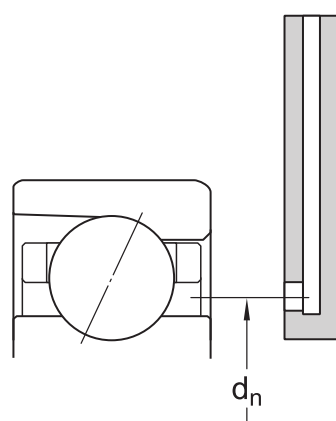
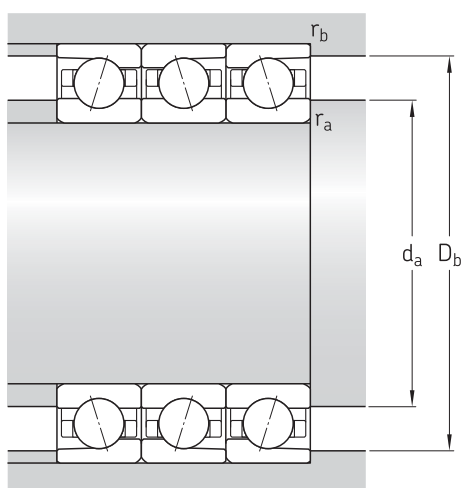
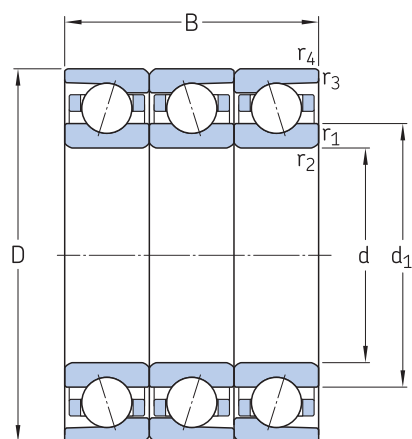
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Technical specification

Universal matching bearing(s)

No



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Dimensions

d		
D		
B		
d ₁	61.2 mm	Inner ring (large side face)
r _{1,2}	min. 1 mm	Chamfer dimension
r _{3,4}	min. 0.3 mm	Chamfer dimension

Abutment dimensions

d _a	min. 54.6 mm	Diameter of shaft abutment
D _b	max. 78 mm	Diameter of housing abutment
r _a	max. 1 mm	Radius of fillet
r _b	max. 0.3 mm	Radius of fillet
d _n	61.2 mm	Position of oil nozzle

Calculation data

Basic dynamic load rating	C	63 700 N
Basic static load rating	C ₀	72 000 N
Fatigue load limit	P _u	3 100 N

Attainable speeds

Contact SKF for the attainable speeds



Contact angle	α	15 °
Ball diameter	D_w	9.525 mm
Number of rows	i	3
Number of balls (per bearing)	z	18
Reference grease quantity (per bearing)	G_{ref}	3.6 cm ³

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PRELOAD AND STIFFNESS (BACK-TO-BACK, FACE-TO-FACE)

Preload class		B
Preload	G	297 N
Axial stiffness		114.55 N/ μ m

CORRECTION FACTORS FOR PRELOAD CALCULATION

Correction factor dependent on bearing series and size	f	1.11
Correction factor dependent on contact angle	f_1	1
Correction factor, preload class B	f_{2B}	1.02
Correction factor for hybrid bearings	f_{HC}	1

Mass

Mass	0.76 kg
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Compatible products

Aftermarket replacement

Super-precision, high-capacity, universally matchable single row angular contact ball bearing

[3 x 7010 CDGB/P4A](#)
Verify quantity of bearing rows

