



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

7009 CD/P4ADBB

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

These matched sets of two super-precision, high-capacity, D design, single row angular contact ball bearings are available in a variety of arrangements. They are designed for high-load capacity and relatively high speed operation and, compared to the equivalent SKF B and E design high-speed bearings, are best suited for heavier loads.

- Very high running accuracy
- Very high load carrying capacity

Overview

Dimensions

Bore diameter	45 mm
Outside diameter	75 mm
Width	32 mm
Contact angle	15 °

Properties

Contact type	Normal contact (two-point contact)
Number of rows	2
Ring type	One-piece inner and outer rings
Design	High-capacity D
Universal matching bearing	No
Matched arrangement	Back-to-back <>
Number of bearings in matched set	2
Matched condition (axial clearance/ preload)	Light preload
Tolerance class	P4A
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None

Perform

Basic
Basic
Note

Logist

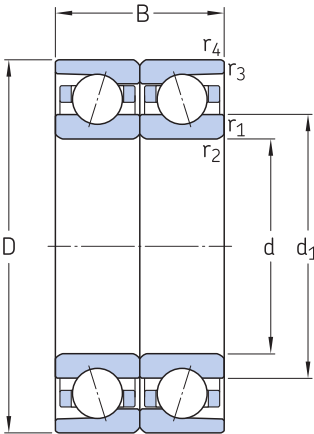
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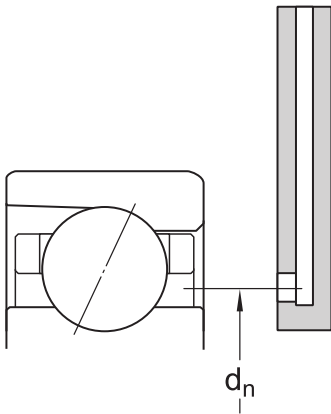
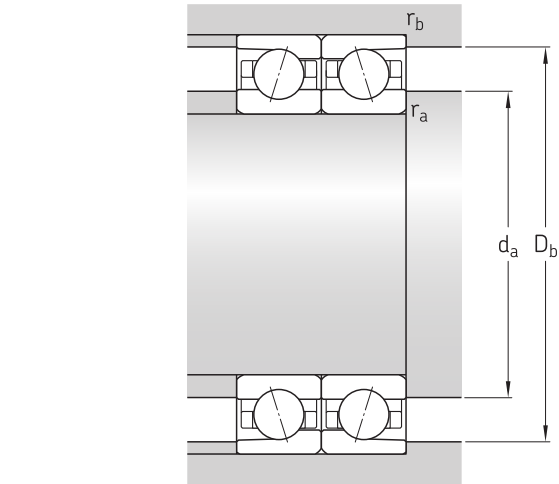
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Next



Technical specification

Universal matching bearing(s)	No
	



Calculation data

Basic dynamic load rating	C	46 800 N
Basic static load rating	C ₀	45 000 N
Fatigue load limit	P _u	1 900 N
Attainable speeds	Contact SKF for the attainable speeds	

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Dimensions		
d		
D		
B		
d ₁	56.2 mm	Oil inlet 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. 49.6 mm	Diameter of shaft abutment
D _b	max. 73 mm	Diameter of housing abutment
r _a	max. 1 mm	Radius of fillet
r _b	max. 0.3 mm	Radius of fillet
d _n	56.2 mm	Position of oil nozzle



Contact angle	α	15 °
Ball diameter	D_w	9.525 mm
Number of rows	i	2
Number of balls (per bearing)	z	17
Reference grease quantity (per bearing)	G_{ref}	3.3 cm ³

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

Preload class		B
Preload	G	220 N
Axial stiffness		76 N/μm

CORRECTION FACTORS FOR PRELOAD CALCULATION

Correction factor dependent on bearing series and size	f	1.09
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

FACTORS FOR EQUIVALENT BEARING LOAD CALCULATION

Calculation factor for equivalent loads	f_0	15.1
Additional factors for equivalent loads		Refer to Notes 1 and 2 below

Mass

Mass	0.47 kg
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Compatible products

Aftermarket replacement

Matched set of two super-precision, high-capacity, D [7009 CD/P4ADGB](#)

