



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

7011 CDGA/P4A

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

These super-precision, high-capacity, single row angular contact ball bearings accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They are designed to accommodate heavy loads at relatively high speeds under low to moderate operating temperatures. Being universally matchable, they can be used together in arrangements to provide effective load sharing, within a predetermined preload range, without the use of shims or similar devices.

- Very high running accuracy
- Very high load carrying capacity
- Relatively high speed and stiffness
- Universally matchable

Overview

Dimensions

Bore diameter	55 mm
Outside diameter	90 mm
Width	18 mm
Contact angle	15 °

Properties

Contact type	Normal contact (two-point contact)
Number of rows	1
Ring type	One-piece inner and outer rings
Design	High-capacity D
Universal matching bearing	Yes, back-to-back (<>), face-to-face (><) or tandem (>>)
Matched arrangement	No
Matched condition (axial clearance/ preload)	Measuring load, class A
Tolerance class	P4A
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None

Perform

Basic
Basic
Note

Logist

Produ	
eClass code	23-05-08-04
UNSPSC code	31171531

Thanks for your interest in SKF super-precision bearings! We are constantly seeking to improve how we serve our site visitors with the best content and would be grateful if you can spare a moment to answer 3 short questions. Thank You!

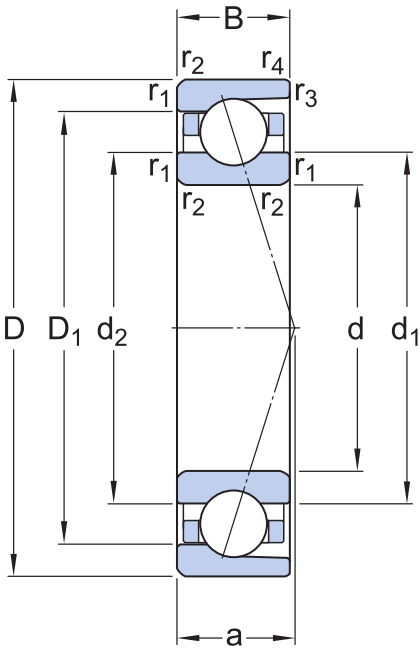
Next



Technical specification

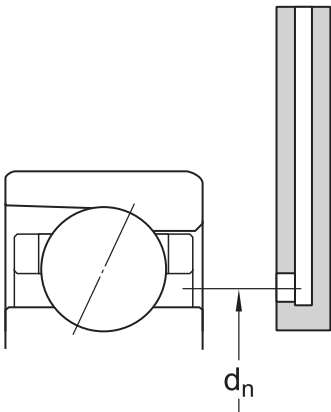
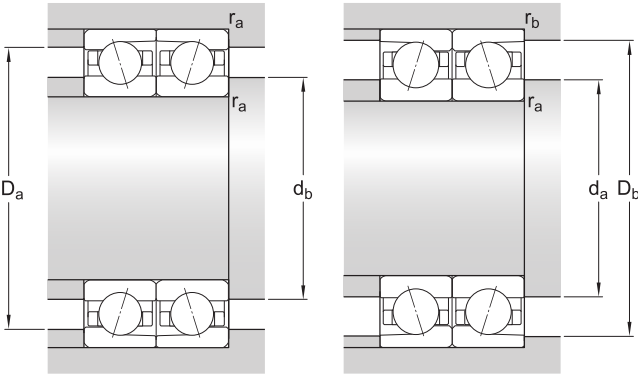
Universal matching bearing(s)

Yes, back-to-back (<>), face-to-face (><) or tandem (>>)



Dimensions

d		
D		
B		
d ₁	65.8 mm	Shoulder diameter of inner ring (large side face)
d ₂	65.8 mm	Shoulder diameter of inner ring (small side face)
D ₁	79.2 mm	Shoulder diameter of outer ring (large side face)
r _{1,2}	min. 1.1 mm	Chamfer dimension
r _{3,4}	min. 0.6 mm	Chamfer dimension
a	18.8 mm	Distance from side face to pressure point



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Abutment dimensions

da	min. 61 mm	Diameter of shaft abutment
db	min. 61 mm	Diameter of shaft abutment
Da	max. 84 mm	Diameter of housing abutment
Db	max. 86.8 mm	Diameter of housing abutment
ra	max. 1 mm	Radius of fillet
rb	max. 0.6 mm	Radius of fillet
dn	68.1 mm	Position of oil nozzle



Basic dynamic load rating	C	39.7 kN
Basic static load rating	C ₀	32.5 kN
Fatigue load limit	P _u	1.37 kN
Attainable speeds		Contact SKF for the attainable speeds
Contact angle	α	15 °
Ball diameter	D _w	11.112 mm
Number of rows	i	1
Number of balls (per bearing)	z	18
Reference grease quantity (per bearing)	G _{ref}	5.1 cm ³

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

Preload class		A
Preload when unmounted	G	150 N
Axial stiffness		67 N/μm

CORRECTION FACTORS FOR PRELOAD CALCULATION

Correction factor dependent on bearing series and size	f	1.1
Correction factor dependent on contact angle	f ₁	1
Correction factor, preload class A	f _{2A}	1
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	0.38 kg
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