

7007 CE/P4A

Angular contact ball bearings,
super-precision

Product details

[Tolerances,](#)

P4A, P4B, P4, PA9A, P2, D design,

E design, B design,

[direct oil-air lubrication](#)

Principles of bearing

selection and application

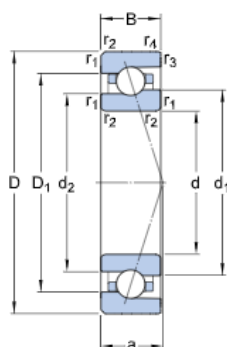
[Chamfer dimensions,](#)

[Seat tolerances for standard conditions,](#)

shafts, housings, shafts, housings,

[Initial grease fill](#)

Technical specification

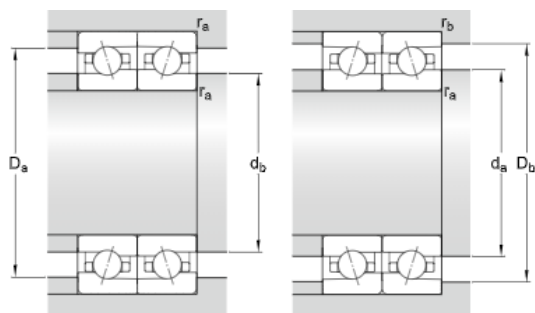


DIMENSIONS

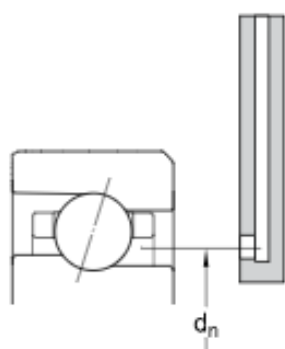
d	35 mm
D	62 mm
B	14 mm
d ₁	43.7 mm
d ₂	41.6 mm
D ₁	52.25 mm
r _{1,2}	min. 1 mm
r _{3,4}	min. 0.6 mm
a	13.5 mm

ABUTMENT DIMENSIONS

d _a	min. 39.6 mm
d _b	min. 39.6 mm
D _a	max. 57.4 mm
D _b	max. 57.8 mm



r_a	max. 1 mm
r_b	max. 0.6 mm
d_n	45.6 mm



CALCULATION DATA

Basic dynamic load rating	C	11.4 kN
Basic static load rating	C_0	6.55 kN
Fatigue load limit	P_u	0.28 kN
Attainable speed for grease lubrication		34000 r/min
Attainable speed for oil-air lubrication		50000 r/min
Contact angle	α	15 °
Ball diameter	D_w	7.144 mm
Number of balls	z	17
Reference grease quantity	G_{ref}	2.4 cm

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

Preload class A	G_A	60 N
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Static axial stiffness, preload class A		31 N/μm
Preload class B	G_B	180 N
Static axial stiffness, preload class B		49 N/μm
Preload class C	G_C	370 N
Static axial stiffness, preload class C		67 N/μm

CALCULATION FACTORS

Calculation factor	f	1.06
Calculation factor	f_1	1
Calculation factor	f_{2A}	1
Calculation factor	f_{2B}	1.03
Calculation factor	f_{2C}	1.05
Calculation factor	f_{HC}	1
Calculation factor	f_0	7.9

MASS

Mass bearing	0.15 kg
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More information

Product details

[Designs and variants](#)[Markings on bearings and bearing sets](#)[Bearing data](#)[Preload, clearance, and stiffness](#)[Loads](#)[Attainable speeds](#)[Mounting](#)[Designation system](#)

Engineering information

[Principles of bearing selection and application](#)[General bearing knowledge](#)[Bearing selection process](#)[Bearing failure and how to prevent it](#)

Tools

[SimPro Quick](#)[SimPro Spindle](#)[Engineering Calculator](#)[LubeSelect for SKF greases](#)[Heater selection tool](#)

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