



S7004 ACE/HCP4BVG275

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

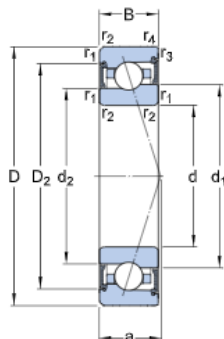
[Chamfer dimensions,](#)

[Seat tolerances for standard conditions,](#)

shafts, housings, shafts, housings,

[Initial grease fill](#)

Technical specification

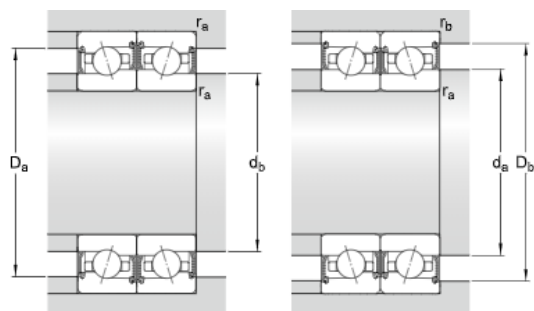


DIMENSIONS

d	20 mm
D	42 mm
B	12 mm
d ₁	26.6 mm
d ₂	24.8 mm
D ₂	36.5 mm
r _{1,2}	min. 0.6 mm
r _{3,4}	min. 0.3 mm
a	13.2 mm

ABUTMENT DIMENSIONS

d _a	min. 22 mm
d _a	max. 26.2 mm
d _b	min. 22 mm
d _b	max. 24.4 mm



D_a	max. 40 mm
D_b	max. 39.6 mm
r_a	max. 0.6 mm
r_b	max. 0.3 mm

CALCULATION DATA

Basic dynamic load rating	C	7.15 kN
Basic static load rating	C_0	3.25 kN
Fatigue load limit	P_u	0.1 kN
Attainable speed for grease lubrication		58000 r/min
Contact angle	α	25 °
Ball diameter	D_w	6.35 mm
Number of balls	z	12

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

Preload class A	G_A	64 N
Static axial stiffness, preload class A		58 N/μm

CALCULATION FACTORS

Calculation factor	f	1.04
Calculation factor	f_1	0.99
Calculation factor	f_{2A}	1
Calculation factor	f_{HC}	1.01
Calculation factor	e	0.68
Calculation factor (single, tandem)	Y_2	0.87
Calculation factor (back-to-back, face-to-face)	Y_1	0.92
Calculation factor (back-to-back, face-to-face)	Y_2	1.41

MASS

Mass bearing

0.059 kg

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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