



7209 BEP

Angular contact ball bearings, single row

Bearing data

Tolerances,

Normal (metric), P6, P5, Normal (inch),

Internal clearance,

CA+CB+CC, G,

Preload,

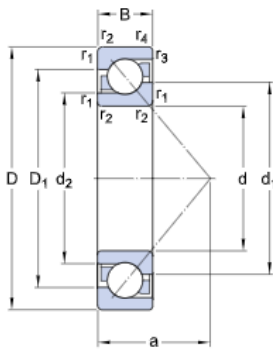
GA+GB+GC

Bearing interfaces

Seat tolerances for standard conditions,

Tolerances and resultant fit

Technical specification



DIMENSIONS

d	45 mm	Bore diameter
D	85 mm	Outside diameter
B	19 mm	Width
d1	≈60.85 mm	Shoulder diameter inner ring (large side face)
d2	≈52.68 mm	Shoulder diameter inner ring (small side face)
D1	≈70.15 mm	Shoulder diameter outer ring (large side face)
a	37 mm	Distance pressure point
r1,2	min.1.1 mm	Chamfer dimension
r3,4	min.0.6 mm	Chamfer dimension outer ring small side face

ABUTMENT DIMENSIONS

da	min.52 mm	Abutment diameter shaft
Da	max.78 mm	Abutment diameter housing
Db	max.80.8 mm	Abutment diameter housing
	max.1	Fillet



ra	mm	radius
rb	max.0.6 mm	Fillet radius

CALCULATION DATA

Basic dynamic load rating	C	35.8 kN
Basic static load rating	C_0	26 kN
Fatigue load limit	P_u	1.12 kN
Reference speed		9 500 r/min
Limiting speed		9 000 r/min
Calculation factor	A	0.012
Calculation factor	k_r	0.095
Calculation factor	e	1.14

SINGLE BEARING OR BEARING PAIR ARRANGED IN TANDEM

Calculation factor	X	0.35
Calculation factor	Y_0	0.26
Calculation factor	Y_2	0.57

BEARING PAIR ARRANGED BACK-TO-BACK OR FACE-TO-FACE

Calculation factor	X	0.57
Calculation factor	Y_0	0.52
Calculation factor	Y_1	0.55
Calculation factor	Y_2	0.93

MASS

Mass bearing

0.42 kg

More information

Product details	Engineering information	Tools
Designs and variants	Principles of rolling bearing selection	Bearing Select
Bearing data	General bearing knowledge	SimPro Quick
Loads	Bearing selection process	Engineering Calculator
Temperature limits	Bearing interfaces	LubeSelect for SKF greases
Permissible speed	Seat tolerances for standard conditions	Heater selection tool
Design considerations	Selecting internal clearance or preload	Rolling bearings mounting and dismounting instructions
Designation system	Lubrication	
	Sealing, mounting and dismounting	
	Bearing failure and how to prevent it	

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