



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

7220 BECBY

Single row angular contact ball bearing

These single row angular contact ball bearings can accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They can operate at high speeds and, depending on the variant, even very high speeds. They are more suitable than deep groove ball bearings for supporting large axial forces acting in one direction.

- High-speed capability
- Accommodate relatively high radial loads and large unilateral axial loads

Overview

Dimensions

Bore diameter	100 mm
Outside diameter	180 mm
Width	34 mm
Contact angle	40 °

Performance

Basic dynamic load rating	143 kN
Basic static load rating	134 kN
Reference speed	4 500 r/min
Limiting speed	4 500 r/min
SKF performance class	SKF Explorer

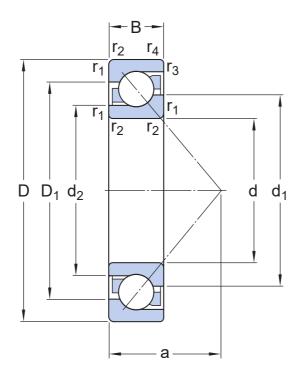
Properties

Contact type	Normal contact (two-point contact)
Number of rows	1
Locating feature, bearing outer ring	None
Ring type	One-piece inner and outer rings
Cage	Brass sheet metal
Matched arrangement	No
Universal matching bearing	Yes
Axial internal clearance	Not applicable
Matched condition (axial clearance/ preload)	Axial clearance CB
Tolerance class	Class P6 (P6)
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Logistics

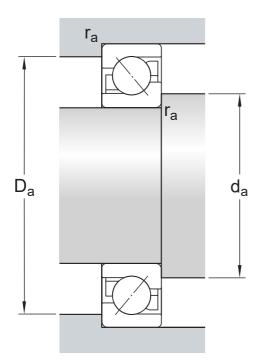
Product net weight	3.38 kg
eClass code	23-05-08-03
UNSPSC code	31171531

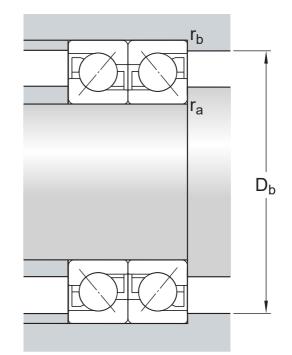
Technical specification



Dimensions

d	100 mm	Bore diameter
D	180 mm	Outside diameter
В	34 mm	Width
d1	≈ 130.95 mm	Shoulder diameter of inner ring (large side face)
d ₂	≈ 115.22 mm	Shoulder diameter of inner ring (small side face)
D ₁	≈ 150.9 mm	Shoulder diameter of outer ring (large side face)
a	76 mm	Distance side face to pressure point
r _{1,2}	min. 2.1 mm	Chamfer dimension
٢3,4	min. 1.1 mm	Chamfer dimension





Abutment dimensions

da	min. 112 mm	Diameter of shaft abutment
Da	max. 168 mm	Abutment diameter housing
Db	max. 173 mm	Diameter of housing abutment
ra	max. 2 mm	Radius of fillet
Гb	max. 1 mm	Radius of fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	С	143 kN
Basic static load rating	Co	134 kN
Fatigue load limit	Pu	4.75 kN
Reference speed		4 500 r/min
Limiting speed		4 500 r/min
Minimum axial load factor	A	0.239
Minimum radial load factor	kr	0.095
Limiting value	e	1.14

SINGLE BEARING OR BEARING PAIR ARRANGED IN TANDEM

Calculation factor (single, tandem)	Х	0.35
Calculation factor (single, tandem)	Y ₀	0.26
Calculation factor (single, tandem)	Y ₂	0.57

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

Calculation factor (back-to-back, face-to- face)	Х	0.57
Calculation factor (back-to-back, face-to- face)	Y ₀	0.52
Calculation factor (back-to-back, face-to- face)	Y ₁	0.55
Calculation factor (back-to-back, face-to- face)	Y ₂	0.93

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- 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

More Information

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



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