



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

7316 BECCM

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	80 mm
Outside diameter	170 mm
Width	39 mm
Contact angle	40 °

Performance

Basic dynamic load rating	143 kN
Basic static load rating	118 kN
Reference speed	5 000 r/min
Limiting speed	6 700 r/min
SKF performance class	SKF Explorer

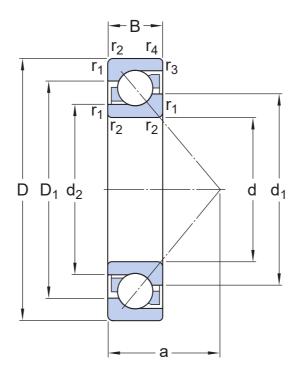
Properties

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	Machined brass
Matched arrangement	No
Universal matching bearing	Yes
Axial internal clearance	Not applicable
Matched condition (axial clearance/ preload)	Axial clearance CC
Tolerance class	Class P6 (P6)
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Logistics

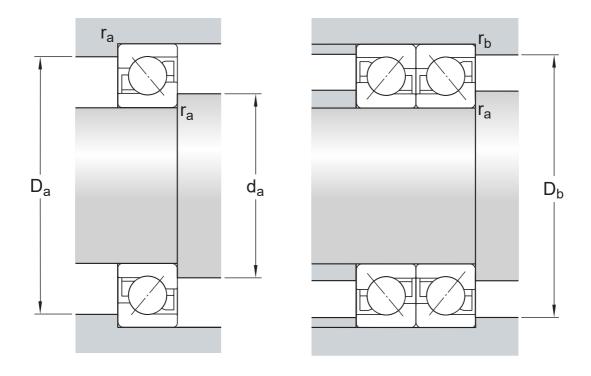
Product net weight	4.03 kg	
eClass code	23-05-08-03	
UNSPSC code	31171531	

Technical specification



Dimensions

d	80 mm	Bore diameter
D	170 mm	Outside diameter
В	39 mm	Width
d_1	≈ 115.2 mm	Shoulder diameter of inner ring (large side face)
d_2	≈ 97.07 mm	Shoulder diameter of inner ring (small side face)
D_1	≈ 136.75 mm	Shoulder diameter of outer ring (large side face)
a	72 mm	Distance side face to pressure point
r _{1,2}	min. 2.1 mm	Chamfer dimension
Г3,4	min. 1.1 mm	Chamfer dimension



Abutment dimensions

da	min. 92 mm	Diameter of shaft abutment
Da	max. 158 mm	Abutment diameter housing
D _b	max. 163 mm	Diameter of housing abutment
ra	max. 2 mm	Radius of fillet
r _b	max. 1 mm	Radius of fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	С	143 kN
Basic static load rating	C ₀	118 kN
Fatigue load limit	Pu	4.5 kN
Reference speed		5 000 r/min
Limiting speed		6 700 r/min
Minimum axial load factor	А	0.216
Minimum radial load factor	k _r	0.1
Limiting value	е	1.14

Calculation factor (single, tandem)	X	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)	X	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

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



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