

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	110 mm
Outside diameter	200 mm
Width	38 mm
Contact angle	40 °

Performance

Basic dynamic load rating	163 kN
Basic static load rating	156 kN
Reference speed	4 000 r/min
Limiting speed	4 000 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		



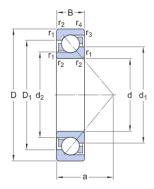
Lubricant

Relubrication feature Without



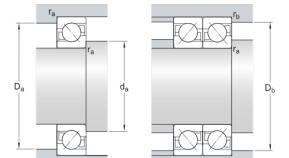
Technical Specification

SKF performance class SKF Explorer



Dimensions

d	110 mm	Bore diameter
D	200 mm	Outside diameter
В	38 mm	Width
d_1	≈ 144.85 mm	Shoulder diameter of inner ring (large side face)
d ₂	≈ 127.12 mm	Shoulder diameter of inner ring (small side face)
D_1	≈ 167.35 mm	Shoulder diameter of outer ring (large side face)
а	84 mm	Distance side face to pressure point
r _{1,2}	min. 2.1 mm	Chamfer dimension
r _{3,4}	min. 1.1 mm	Chamfer dimension



Abutment dimensions

	d _a	min. 122 mm	Diameter of shaft abutment
D_a	D _a	max. 188 mm	Abutment diameter housing
D _b max		max. 193 mm	Diameter of housing abutment
	r _a	max. 2 mm	Radius of fillet
r _b	r _b	max. 1 mm	Radius of fillet

Calculation data



Basic dynamic load rating	С		163 kN
Basic static load rating	C_0		156 kN
Fatigue load limit	P_{u}		5.3 kN
Reference speed			4 000 r/min
Limiting speed			4 000 r/min
Minimum axial load factor	А		0.353
Minimum radial load factor	k _r		0.095
Limiting value	е		1.14
Single bearing or bearing pair arranged in tandem			
Calculation factor (single, tandem)		Χ	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
NA			
Mass			

Mass

4.6 kg



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