





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	75 mm
Outside diameter	130 mm
Width	25 mm
Contact angle	40 °

#### Performance

Basic dynamic load rating	73.5 kN
Basic static load rating	65.5 kN
Reference speed	6 000 r/min
Limiting speed	6 300 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	Non-metallic
Matched arrangement	No
Universal matching bearing	Yes
Axial internal clearance	Not applicable
Matched condition (axial clearance/ preload)	Light preload
Tolerance class	Class P6 (P6)
Material, bearing	Bearing steel
Coating	Without

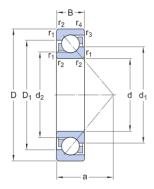


Sealing	Without
Lubricant	None
Relubrication feature	Without



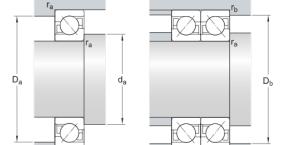
# **Technical Specification**

SKF performance class SKF Explorer



## Dimensions

d	75 mm	Bore diameter
D	130 mm	Outside diameter
В	25 mm	Width
$d_1$	≈ 96.3 mm	Shoulder diameter of inner ring (large side face)
d <sub>2</sub>	≈ 85.25 mm	Shoulder diameter of inner ring (small side face)
$D_1$	≈ 110.1 mm	Shoulder diameter of outer ring (large side face)
а	56 mm	Distance side face to pressure point
r <sub>1,2</sub>	min. 1.5 mm	Chamfer dimension
r <sub>3,4</sub>	min. 1 mm	Chamfer dimension



## Abutment dimensions

d <sub>a</sub>	min. 84 mm	Diameter of shaft abutment
D <sub>a</sub>	max. 121 mm	Abutment diameter housing
D <sub>b</sub>	max. 124 mm	Diameter of housing abutment
r <sub>a</sub>	max. 1.5 mm	Radius of fillet
r <sub>b</sub>	max. 1 mm	Radius of fillet

### Calculation data



Basic dynamic load rating	С		73.5 kN
Basic static load rating	$C_0$		65.5 kN
Fatigue load limit	P <sub>u</sub>		2.7 kN
Reference speed			6 000 r/min
Limiting speed			6 300 r/min
Minimum axial load factor	Α		0.0599
Minimum radial load factor	k <sub>r</sub>		0.095
Limiting value	е		1.14
Single bearing or bearing pair arranged in tandem			
Calculation factor (single, tandem)		X	0.35
Calculation factor (single, tandem)		Y <sub>0</sub>	0.26
Calculation factor (single, tandem)		Y <sub>2</sub>	0.57
Bearing pair arranged back-to-back or face-to-face			
Calculation factor (back-to-back, face-to-face)		Χ	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
Mass			
Mass			1.2 kg



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