

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

QJ 312 PHAS

Four-point contact ball bearing

Four-point contact ball bearings can accommodate high axial loads in both directions and small radial loads. They can operate at very high speeds and are more suitable than deep groove ball bearings for supporting large axial forces. The outer ring, with ball and cage assembly, can be mounted separately from the two inner ring halves.

- High-speed capability
- Accommodate high axial loads in both directions and small radial loads
- Require considerably less axial space than double row angular contact ball bearings

Overview

Dimensions

Bore diameter	60 mm
Outside diameter	130 mm
Width	31 mm
Contact angle	35 °

Performance

Basic dynamic load rating	156 kN
Basic static load rating	137 kN
Limiting speed	9 000 r/min
SKF performance class	SKF Explorer

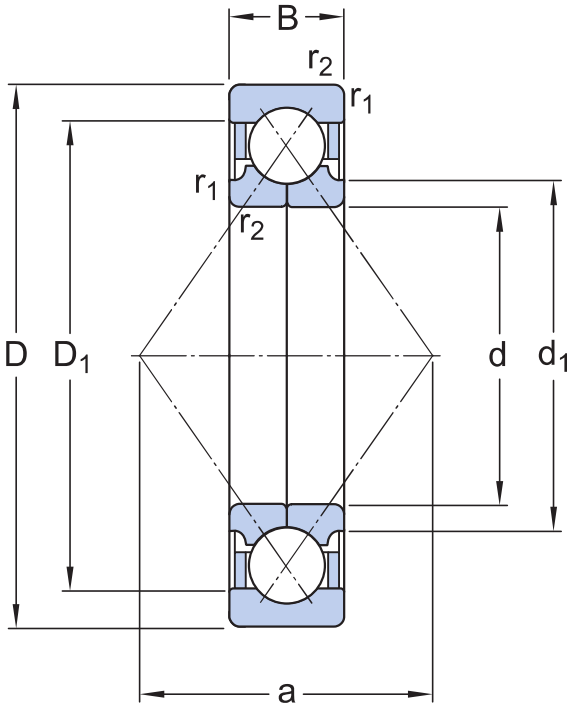
Properties

Contact type	Four-point contact
Number of rows	1
Locating feature, bearing outer ring	Without
Ring type	Two-piece inner ring and one-piece outer ring
Cage	Non-metallic
Matched arrangement	No
Universal matching bearing	No
Axial internal clearance	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without
Indicative carbon footprint for new product	6.7 kg CO_2e

Logistics

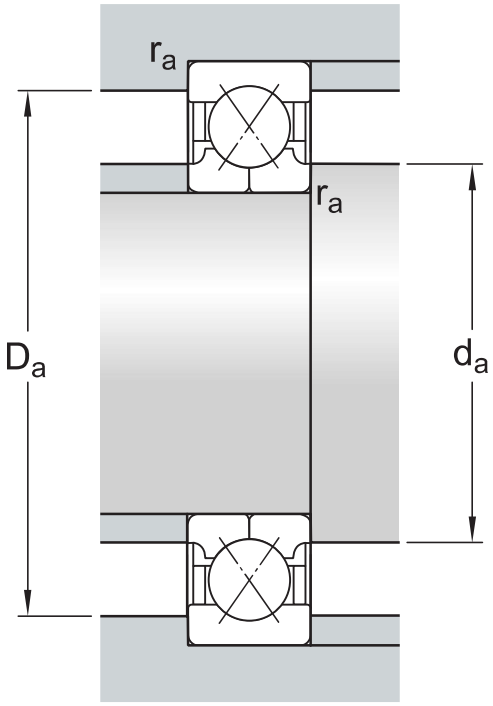
Product net weight	1.82 kg
eClass code	23-05-08-05
UNSPSC code	31171538

Technical specification



Dimensions

d	60 mm	Bore diameter
D	130 mm	Outside diameter
B	31 mm	Width
d_1	≈ 77 mm	Shoulder diameter inner ring
D_1	≈ 106 mm	Shoulder diameter outer ring/ inner diameter housing washer
a	67 mm	Distance pressure point(s)
$r_{1,2}$	min. 2.1 mm	Chamfer dimension inner ring



Abutment dimensions

d_a	min. 72 mm	Abutment diameter shaft
D_a	max. 118 mm	Abutment diameter housing
r_a	max. 2 mm	Fillet radius

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	156 kN
Basic static load rating	C_0	137 kN
Fatigue load limit	P_u	5.85 kN
Limiting speed		9 000 r/min
Calculation factor	A	0.06
Limiting value	e	0.95
Calculation factor	X	0.6
Calculation factor	Y_0	0.58
Calculation factor	Y_1	0.66
Calculation factor	Y_2	1.1

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P6
- Internal clearance: table

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

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