

QJ 316 N2MA Four-point contact ball bearing with locating slots



Four-point contact ball bearing with locating slots

Four-point contact ball bearings with locating slots 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. The locating slots can be used to prevent the outer ring from rotating.

- 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
- The locating slots can be used to prevent the outer ring from rotating

Overview

Dimensions

Bore diameter	80 mm
Outside diameter	170 mm
Width	39 mm
Contact angle	35 °

Performance

Basic dynamic load rating	232 kN
Basic static load rating	228 kN
Limiting speed	7 000 r/min
SKF performance class	SKF Explorer

Properties

Contact type	Four-point contact
Number of rows	1
Locating feature, bearing outer ring	Locating slot
Ring type	Two-piece inner ring and one-piece outer ring
Cage	Machined metal
Matched arrangement	No
Universal matching bearing	No

Axial internal clearance	CN
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Technical Specification

SKF performance class

SKF Explorer

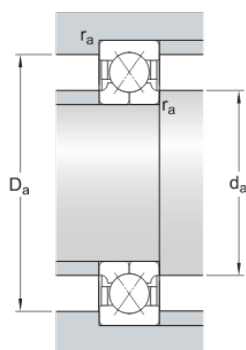


Dimensions

d	80 mm	Bore diameter
D	170 mm	Outside diameter
B	39 mm	Width
d_1	≈ 111 mm	Shoulder diameter inner ring
D_1	≈ 139 mm	Shoulder diameter outer ring/ inner diameter housing washer
a	88 mm	Distance pressure point(s)
h	10.1 mm	Locating slot depth outer ring
b	8.5 mm	Locating slot width outer ring
r_0	2 mm	Corner radius locating slot
$r_{1,2}$	min. 2.1 mm	Chamfer dimension inner ring

Abutment dimensions

d_a	min. 92 mm	Abutment diameter shaft
D_a	max. 158 mm	Abutment diameter housing
r_a	max. 2 mm	Fillet radius



Calculation data

Basic dynamic load rating	C	232 kN
Basic static load rating	C_0	228 kN
Fatigue load limit	P_u	8.65 kN
Limiting speed		7 000 r/min
Calculation factor	A	0.155
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	1.07

Mass

Mass bearing	4.6 kg
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