

Overview

1207 EKTN9



Self-aligning ball bearing with tapered bore

Self-aligning ball bearings, with a tapered bore, have two rows of balls, a common sphered raceway in the outer ring and two deep uninterrupted raceway grooves in the inner ring. They are insensitive to angular misalignment of the shaft relative to the housing, which can be caused, for example, by shaft deflection. The tapered bore facilitates ease of mounting via adapter sleeves or withdrawal sleeves.

- Ease of mounting via adapter sleeves or withdrawal sleeves
- Accommodate static and dynamic misalignment
- Excellent high-speed performance
- Excellent light load performance
- Low friction

Dimensions

Bore diameter	35 mm
Outside diameter	72 mm
Width	17 mm

Performance

Basic dynamic load rating	19 kN
Basic static load rating	6 kN
Reference speed	20 000 r/min
Limiting speed	13 000 r/min

Properties

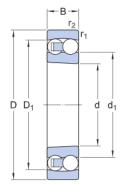
Retaining feature, inner ring	None
Locating feature, bearing outer ring	None
Number of rows	2
Bore type	Tapered 1:12
Cage	Non-metallic
Radial internal clearance	CN
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without



Technical Specification

Bore type

Tapered 1:12

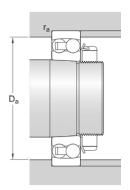


Dimensions

d	35 mm	Bore diameter
D	72 mm	Outside diameter
В	17 mm	Width
d_1	≈ 47 mm	Shoulder diameter inner ring
D_1	≈ 60.9 mm	Shoulder diameter outer ring
r _{1,2}	min. 1.1 mm	Chamfer dimension

Abutment dimensions

D _a	max. 65 mm	Abutment diameter housing
r _a	max. 1.1 mm	Fillet radius



Calculation data

Basic dynamic load rating	С	19 kN
Basic static load rating	C ₀	6 kN
Fatigue load limit	Pu	0.305 kN
Reference speed		20 000 r/min



Limiting speed		13 000 r/min
Permissible angular misalignment	α	2.5 °
Calculation factor	k _r	0.04
Limiting value	е	0.23
Calculation factor	Y ₀	2.8
Calculation factor	Y ₁	2.7
Calculation factor	Y ₂	4.2

Mass

Mass bearing	0.32 kg
riass bearing	0.52 Ng



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