



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

1210 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

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	90 mm
Width	20 mm

Performance

Basic dynamic load rating	26.5 kN
Basic static load rating	9.15 kN
Reference speed	16 000 r/min
Limiting speed	10 000 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

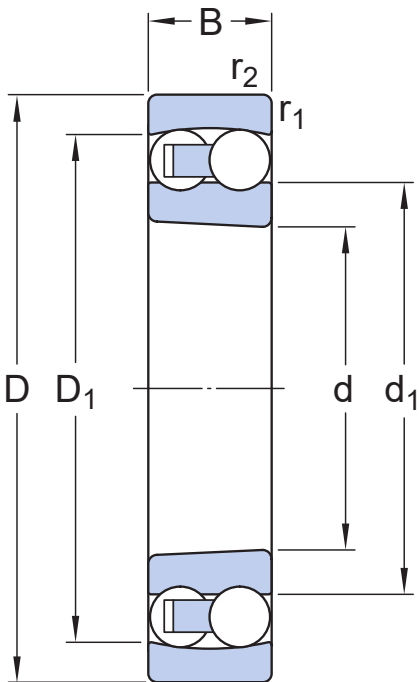
Logistics

Product net weight	0.492 kg
eClass code	23-05-08-06
UNSPSC code	31171532

Technical specification

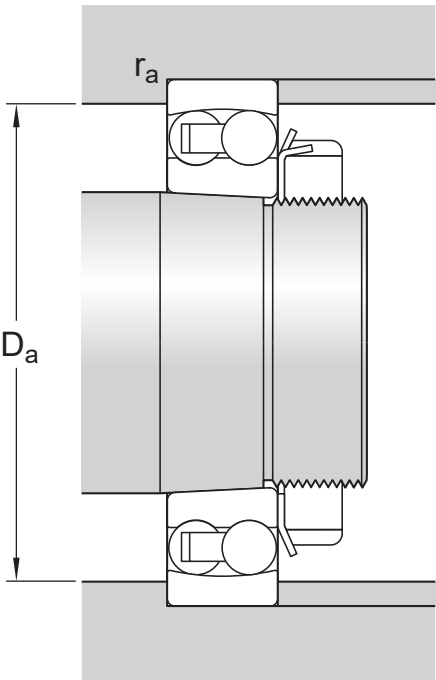
Bore type

Tapered 1:12



Dimensions

d	50 mm	Bore diameter
D	90 mm	Outside diameter
B	20 mm	Width
d ₁	≈ 61.7 mm	Shoulder diameter inner ring
D ₁	≈ 78.1 mm	Shoulder diameter outer ring
r _{1,2}	min. 1.1 mm	Chamfer dimension



Abutment dimensions

D _a	max. 83 mm	Abutment diameter housing
r _a	max. 1.1 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	26.5 kN
Basic static load rating	C ₀	9.15 kN
Fatigue load limit	P _u	0.475 kN
Reference speed		16 000 r/min
Limiting speed		10 000 r/min
Permissible angular misalignment	α	2.5 °
Calculation factor	k _r	0.04
Limiting value	e	0.21
Calculation factor	Y ₀	3.2
Calculation factor	Y ₁	3
Calculation factor	Y ₂	4.6

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- [Tolerances](#): Normal, JS7
- [Radial internal clearance](#): table

BEARING INTERFACES

- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fits](#)

Compatible products

Recommended product

Adapter sleeve with KM lock nut and MB lock washer, metric dimensions	H 210
Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore	HA 210
Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore	HE 210
Adapter sleeve with AN or N lock nut and W lock washer, inch dimensions	SNW 10X1.11/16

More Information

 Product details Designs and variants General bearing specifications Loads Temperature limits Permissible speed Design considerations Mounting Designation system	 Engineering information Principles of rolling bearing selection General bearing knowledge Bearing selection process Bearing interfaces Seat tolerances for standard conditions Selecting internal clearance Lubrication Sealing, mounting and dismounting Bearing failure and how to prevent it	 Tools SKF Product select - Select and evaluate bearing SKF Product select - Combine housing with bearing SimPro Quick LubeSelect for SKF greases Heater selection tool Drive-up Method Program Oil Injection Method Program Tool and Accessory Selector for sleeves and shafts
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