

Overview

2203 ETN9

Self-aligning ball bearing

Self-aligning ball bearings 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.

- Accommodate static and dynamic misalignment
- Excellent high-speed performance
- Excellent light load performance
- Low friction

Dimensions

Bore diameter	17 mm
Outside diameter	40 mm
Width	16 mm

Performance

Basic dynamic load rating	10.6 kN
Basic static load rating	2.55 kN
Reference speed	34 000 r/min
Limiting speed	24 000 r/min

Properties

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

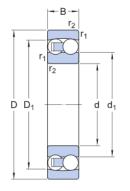




Technical Specification

Bore type

Cylindrical



Dimensions

d	17 mm	Bore diameter
D	40 mm	Outside diameter
В	16 mm	Width
d_1	≈ 23.83 mm	Shoulder diameter inner ring
D_1	≈ 33.4 mm	Shoulder diameter outer ring
r _{1,2}	min. 0.6 mm	Chamfer dimension

Abutment dimensions

d _a min. 21.2 mm	Abutment diameter shaft
D _a max. 35.8 mm	Abutment diameter housing
r _a max. 0.6 mm	Fillet radius



Da

da

Basic dynamic load rating	С	10.6 kN
Basic static load rating	C ₀	2.55 kN
Fatigue load limit	P _u	0.132 kN
Reference speed		34 000 r/min



Limiting speed		24 000 r/min
Permissible angular misalignment	α	2.5 °
Calculation factor	k _r	0.045
Limiting value	е	0.43
Calculation factor	Υ ₀	1.6
Calculation factor	Y ₁	1.5
Calculation factor	Y ₂	2.3

Mass

Mass bearing	0.088 kg
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