

1316



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

Bore type

Cylindrical



Dimensions

d	80 mm	Bore diameter
D	170 mm	Outside diameter
B	39 mm	Width
d ₁	≈ 110 mm	Shoulder diameter inner ring
D ₁	≈ 144.4 mm	Shoulder diameter outer ring
r _{1,2}	min. 2.1 mm	Chamfer dimension



Abutment dimensions

da	min. 92 mm	Abutment diameter shaft
Da	max. 158 mm	Abutment diameter housing
ra	max. 2 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	88.4 kN
Basic static load rating	C ₀	33.5 kN
Fatigue load limit	P _u	1.5 kN
Reference speed		7 500 r/min
Limiting speed		5 300 r/min
Permissible angular misalignment	α	3 °
Calculation factor	k _r	0.045
Limiting value	e	0.22
Calculation factor	Y ₀	2.8
Calculation factor	Y ₁	2.9
Calculation factor	Y ₂	4.5

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, JS7
- Radial internal clearance: table

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fits