



SKF 1209 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.

Technical specifications

Bore type	Cylindrical
Dimensions	
Bore diameter	45 mm
Outside diameter	85 mm
Width	19 mm
Shoulder diameter inner ring	57.51 mm
Shoulder diameter outer ring	72.5 mm
Chamfer dimension	1.1 mm
Abutment dimensions	
Abutment diameter shaft	52 mm
Abutment diameter housing	78 mm
Fillet radius	1.1 mm
Calculation data	
Basic dynamic load rating	22.9 kN
Basic static load rating	7.8 kN
Fatigue load limit	0.4 kN
Reference speed	17000 r/min
Limiting speed	11000 r/min
Permissible angular misalignment	2.5 °
Calculation factor	0.04
Limiting value	0.21
Calculation factor	3.2
Calculation factor	3
Calculation factor	4.6
Performance	
Basic dynamic load rating	22.9 kN
Basic static load rating	7.8 kN
Reference speed	17000 r/min
Limiting speed	11000 r/min
Properties	
Retaining feature, inner ring	None
Locating feature, bearing outer ring	Without
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

Indicative carbon footprint for new product

1.6 kg CO₂e

Logistics	
Product net weight	0.452 kg
eClass code	23-05-08-06
UNSPSC code	31171532

SKF drawings