

7209 BEP



These single row angular contact ball bearings can accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They can operate at high speeds and, depending on the variant, even very high speeds. They are more suitable than deep groove ball bearings for supporting large axial forces acting in one direction.

- High-speed capability
- Accommodate relatively high radial loads and large unilateral axial loads



Dimensions		
d	45 mm	Bore diameter
D	85 mm	Outside diameter
B	19 mm	Width
d ₁	≈ 60.85 mm	Shoulder diameter of inner ring (large side face)
d ₂	≈ 52.68 mm	Shoulder diameter of inner ring (small side face)
D ₁	≈ 70.15 mm	Shoulder diameter of outer ring (large side face)
a	37 mm	Distance side face to pressure point
r _{1,2}	min. 1.1 mm	Chamfer dimension
r _{3,4}	min. 0.6 mm	Chamfer dimension



Abutment dimensions		
da	min. 52 mm	Diameter of shaft abutment
Da	max. 78 mm	Abutment diameter housing
Db	max. 80.8 mm	Diameter of housing abutment
ra	max. 1 mm	Radius of fillet
rb	max. 0.6 mm	Radius of fillet

Calculation data

Basic dynamic load rating	C	35.8 kN
Basic static load rating	C ₀	26 kN
Fatigue load limit	P _u	1.12 kN
Reference speed		9 500 r/min
Limiting speed		9 000 r/min
Minimum axial load factor	A	0.012
Minimum radial load factor	k _r	0.095
Limiting value	e	1.14

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (), P6, P5, Normal (inch)
- Internal clearance: CA+CB+CC, G
- Preload: GA+GB+GC

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit