

7414 BCBM



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	70 mm	Bore diameter
D	180 mm	Outside diameter
B	42 mm	Width
d ₁	≈ 111.76 mm	Shoulder diameter of inner ring (large side face)
d ₂	≈ 91.03 mm	Shoulder diameter of inner ring (small side face)
D ₁	≈ 140.45 mm	Shoulder diameter of outer ring (large side face)
a	74 mm	Distance side face to pressure point
r _{1,2}	min. 3 mm	Chamfer dimension
r _{3,4}	min. 3 mm	Chamfer dimension



Abutment dimensions		
d _a	min. 84 mm	Diameter of shaft abutment
D _a	max. 188 mm	Abutment diameter housing
D _b	max. 144.5 mm	Diameter of housing abutment
r _a	max. 2 mm	Radius of fillet
r _b	max. 2 mm	Radius of fillet

Calculation data

Basic dynamic load rating	C	159 kN
Basic static load rating	C ₀	127 kN
Fatigue load limit	P _u	4.8 kN
Reference speed		4 800 r/min
Limiting speed		6 300 r/min
Minimum axial load factor	A	0.31
Minimum radial load factor	k _r	0.1
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