

31309



Single row tapered roller bearings are designed to accommodate combined radial and axial loads and provide low friction during operation. The inner ring, with rollers and cage, can be mounted separately from the outer ring. These separable and interchangeable components facilitate mounting, dismounting and maintenance. By mounting one single row tapered roller bearing against another and applying a preload, a rigid bearing application can be achieved.

- High radial and axial load carrying capacity
- Accommodate axial loads in one direction
- Low friction and long service life
- Separable and interchangeable components

Dimension series

7FB



Dimensions		
d	45 mm	Bore diameter
D	100 mm	Outside diameter
T	27.25 mm	Total width
d ₁	≈ 74.7 mm	Shoulder diameter of inner ring
B	25 mm	Width of inner ring
C	18 mm	Width of outer ring
r _{1,2}	min. 2 mm	Chamfer dimension of inner ring
r _{3,4}	min. 1.5 mm	Chamfer dimension of outer ring
a	31.05 mm	Distance side face to pressure point



Abutment dimensions

d_a	max. 57 mm	Diameter of shaft abutment
d_b	min. 55 mm	Diameter of shaft abutment
D_a	min. 79 mm	Diameter of housing abutment
D_a	max. 92 mm	Diameter of housing abutment
D_b	min. 95 mm	Diameter of housing abutment
C_a	min. 4 mm	Minimum width of space required in housing on large side face
C_b	min. 9 mm	Minimum width of space required in housing on small side face
r_a	max. 2 mm	Radius of shaft fillet
r_b	max. 1.5 mm	Radius of housing fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	113 kN
Basic static load rating	C_0	102 kN
Fatigue load limit	P_u	12.5 kN
Reference speed		5 000 r/min
Limiting speed		6 700 r/min
Limiting value	e	0.83
Calculation factor	Y	0.72
Calculation factor	Y_0	0.4

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances:
bearings: Normal and CL7C, CLN
inch bearings: Normal and CL, deviating width

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit

AGA BEARINGS