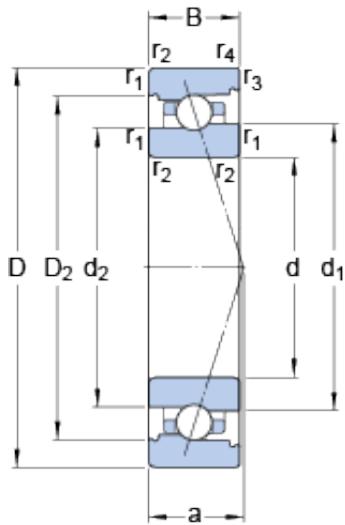




# GARLOCK BEARINGS LTD



7007 ACB/HCP4A Bearing 2D drawings and 3D CAD models

## 7007 ACB/HCP4A SKF High Speed Angular Contact Ball Bearings

Bearing No. 7007 ACB/HCP4A

Size	62x35x14 mm
Bore Diameter	62 mm
Outer Diameter	35 mm
Width	14 mm
d	35 mm
D	62 mm
B	14 mm
d <sub>1</sub>	45.45 mm
d <sub>2</sub>	44.34 mm
D <sub>2</sub>	53.38 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	18.4 mm
d <sub>a</sub> - min.	39.6 mm
d <sub>b</sub> - min.	39.6 mm
D <sub>a</sub> - max.	57.4 mm
D <sub>b</sub> - max.	58.8 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	46.1 mm
Basic dynamic load rating - C	6.5 kN
Basic static load rating - C <sub>0</sub>	4.6 kN
Fatigue load limit - P <sub>u</sub>	0.193 kN
Limiting speed for grease	34000 r/min



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lubrication	
Limiting speed for oil lubrication	53000 mm/min
Ball - $D_w$	4.762 mm
Ball - $z$	23
$G_{ref}$	1.81 cm <sup>3</sup>
Calculation factor - $e$	0.68
Calculation factor - $Y_2$	0.87
Calculation factor - $Y_0$	0.38
Calculation factor - $X_2$	0.41
Calculation factor - $Y_1$	0.92
Calculation factor - $Y_2$	1.41
Calculation factor - $Y_0$	0.76
Calculation factor - $X_2$	0.67
Preload class A - $G_A$	38 N
Preload class B - $G_B$	76 N
Preload class C - $G_C$	230 N
Calculation factor - $f$	1.04
Calculation factor - $f_1$	0.99
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.02
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{HC}$	1.01
Preload class A	72 N/micron
Preload class B	92 N/micron
Preload class C	139 N/micron
$d_1$	45.45 mm
$d_2$	44.34 mm
$D_2$	53.38 mm
$r_{1,2} \text{ min.}$	1 mm



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$r_{3,4}$ min.	0.6 mm
$d_a$ min.	39.6 mm
$d_b$ min.	39.6 mm
$D_a$ max.	57.4 mm
$D_b$ max.	58.8 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	46.1 mm
Basic dynamic load rating C	8.84 kN
Basic static load rating $C_0$	7.8 kN
Fatigue load limit $P_u$	0.193 kN
Attainable speed for grease lubrication	34000 r/min
Attainable speed for oil-air lubrication	53000 r/min
Ball diameter $D_w$	4.762 mm
Number of balls z	23
Reference grease quantity $G_{ref}$	1.81 cm <sup>3</sup>
Preload class A $G_A$	38 N
Static axial stiffness, preload class A	72 N/ $\mu$ m
Preload class B $G_B$	76 N
Static axial stiffness, preload class B	92 N/ $\mu$ m
Preload class C $G_C$	230 N
Static axial stiffness, preload class C	139 N/ $\mu$ m
Calculation factor f	1.04
Calculation factor $f_1$	0.99
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.02
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{HC}$	1.01



## GARLOCK BEARINGS LTD

Calculation factor $e$	0.68
Calculation factor (single, tandem) $Y_2$	0.87
Calculation factor (single, tandem) $Y_0$	0.38
Calculation factor (single, tandem) $X_2$	0.41
Calculation factor (back-to-back, face-to-face) $Y_1$	0.92
Calculation factor (back-to-back, face-to-face) $Y_2$	1.41
Calculation factor (back-to-back, face-to-face) $Y_0$	0.76
Calculation factor (back-to-back, face-to-face) $X_2$	0.67
Mass bearing	0.16 kg