



Bearing Manufacturing of America



50 mm x 80 mm x 16 mm 50 mm x 80 mm x 16 mm SKF 7010 ACB/HCP4A angular contact ball bearings

Bearing No. 7010 ACB/HCP4A

7010 ACB/HCP4A Bearing 2D drawings and 3D CAD models

Size	80x50x16 mm
Bore Diameter	80 mm
Outer Diameter	50 mm
Width	16 mm
d	50 mm
D	80 mm
B	16 mm
d ₁	61.44 mm
d ₂	59.65 mm
D ₂	70.7 mm
r _{1,2} - min.	1 mm
r _{3,4} - min.	0.6 mm
a	23.2 mm
d _a - min.	54.6 mm
d _b - min.	54.6 mm
D _a - max.	75.4 mm
D _b - max.	76.8 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	61.8 mm
Basic dynamic load rating - C	9.4 kN
Basic static load rating - C ₀	7.4 kN
Fatigue load limit - P _u	0.31 kN



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Limiting speed for grease lubrication	26000 r/min
Limiting speed for oil lubrication	40000 mm/min
Ball - D_w	5.556 mm
Ball - z	27
G_{ref}	3.11 cm ³
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	56 N
Preload class B - G_B	110 N
Preload class C - G_C	330 N
Calculation factor - f	1.06
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	97 N/micron
Preload class B	122 N/micron
Preload class C	183 N/micron
d_1	61.44 mm
d_2	59.65 mm
D_2	70.7 mm



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$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	54.6 mm
d_b min.	54.6 mm
D_a max.	75.4 mm
D_b max.	76.8 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	61.8 mm
Basic dynamic load rating C	12.5 kN
Basic static load rating C_0	12.2 kN
Fatigue load limit P_u	0.31 kN
Attainable speed for grease lubrication	26000 r/min
Attainable speed for oil-air lubrication	40000 r/min
Ball diameter D_w	5.556 mm
Number of balls z	27
Reference grease quantity G_{ref}	3.11 cm ³
Preload class A G_A	56 N
Static axial stiffness, preload class A	97 N/ μ m
Preload class B G_B	110 N
Static axial stiffness, preload class B	122 N/ μ m
Preload class C G_C	330 N
Static axial stiffness, preload class C	183 N/ μ m
Calculation factor f	1.06
Calculation factor f_1	0.99
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.02
Calculation factor f_{2C}	1.05



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Calculation factor f_{HC}	1.01
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	0.28 kg