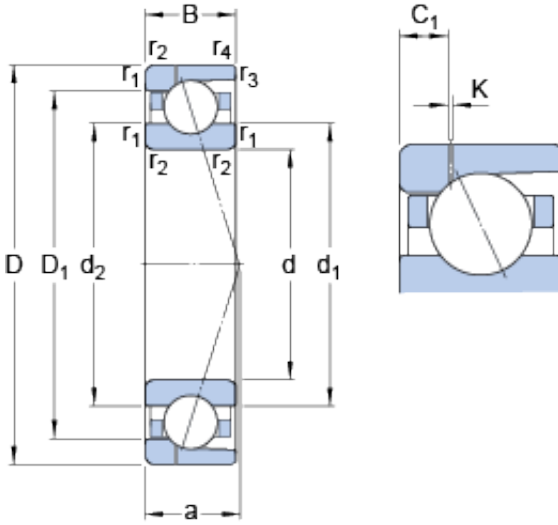




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7014 ACD/P4AH1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 7014 ACD/P4AH1

7014 ACD/P4AH1 Bearing 2D drawings and 3D CAD models

Size	110x70x20 mm
Bore Diameter	110 mm
Outer Diameter	70 mm
Width	20 mm
d	70 mm
D	110 mm
B	20 mm
d ₁	82.3 mm
d ₂	82.3 mm
D ₁	97.7 mm
K	0.5 mm
C ₁	5.39 mm
r _{1,2} - min.	1.1 mm
r _{3,4} - min.	0.6 mm
a	31.1 mm
d _a - min.	76 mm
d _b - min.	76 mm
D _a - max.	104 mm
D _b - max.	106 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	85 mm
Basic dynamic load rating - C	48.8 kN
Basic static load rating - C ₀	44 kN



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Fatigue load limit - P_u	1.9 kN
Limiting speed for grease lubrication	11000 r/min
Limiting speed for oil lubrication	17000 mm/min
Ball - D_w	12.7 mm
Ball - z	19
G_{ref}	8.1 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	300 N
Preload class B - G_B	600 N
Preload class C - G_C	1200 N
Preload class D - G_D	2400 N
Calculation factor - f	1.12
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_{2D}	1.08
Calculation factor - f_{HC}	1
Preload class A	191 N/micron
Preload class B	249 N/micron
Preload class C	330 N/micron



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Preload class D	447 N/micron
d_1	82.3 mm
d_2	82.3 mm
D_1	97.7 mm
C_1	5.39 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	76 mm
d_b min.	76 mm
D_a max.	104 mm
D_b max.	106 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	85 mm
Basic dynamic load rating C	48.8 kN
Basic static load rating C_0	44 kN
Fatigue load limit P_u	1.86 kN
Attainable speed for grease lubrication	11000 r/min
Attainable speed for oil-air lubrication	17000 r/min
Ball diameter D_w	12.7 mm
Number of balls z	19
Reference grease quantity G_{ref}	8.1 cm ³
Preload class A G_A	300 N
Static axial stiffness, preload class A	191 N/ μ m
Preload class B G_B	600 N
Static axial stiffness, preload class B	249 N/ μ m
Preload class C G_C	1200 N
Static axial stiffness, preload class C	330 N/ μ m



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Preload class D G_D	2400 N
Static axial stiffness, preload class D	447 N/ μ m
Calculation factor f	1.12
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_{2D}	1.08
Calculation factor f_{HC}	1
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	0.59 kg