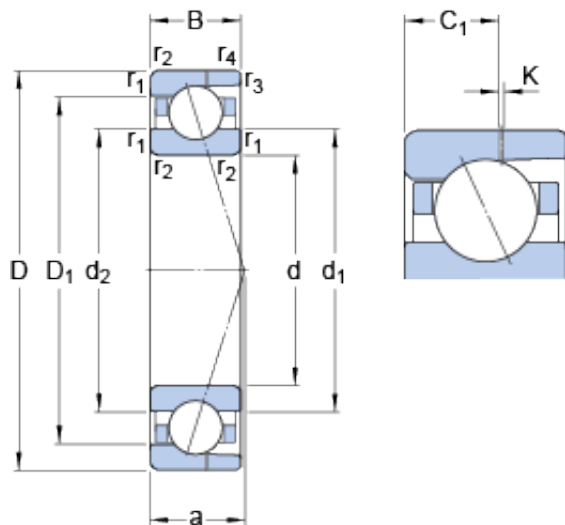




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7003 ACD/P4AH SKF High Speed Angular Contact Ball Bearings

Bearing No. 7003 ACD/P4AH



7003 ACD/P4AH Bearing 2D drawings and 3D CAD models

Size	35x17x10 mm
Bore Diameter	35 mm
Outer Diameter	17 mm
Width	10 mm
d	17 mm
D	35 mm
B	10 mm
d ₁	22.6 mm
d ₂	22.6 mm
D ₁	29.3 mm
K	0.5 mm
C ₁	6.05 mm
r _{1,2} - min.	0.3 mm
r _{3,4} - min.	0.2 mm
a	11.2 mm
d _a - min.	19 mm
d _b - min.	19 mm
D _a - max.	33 mm
D _b - max.	33.6 mm
r _a - max.	0.3 mm
r _b - max.	0.2 mm
d _n	23.7 mm
Basic dynamic load rating - C	6.5 kN
Basic static load rating - C ₀	3.1 kN



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Fatigue load limit - P_u	0.132 kN
Limiting speed for grease lubrication	45000 r/min
Limiting speed for oil lubrication	70000 mm/min
Ball - D_w	5.556 mm
Ball - z	12
G_{ref}	0.54 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	40 N
Preload class B - G_B	80 N
Preload class C - G_C	160 N
Preload class D - G_D	320 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_{2D}	1.08
Calculation factor - f_{HC}	1
Preload class A	48 N/micron
Preload class B	62 N/micron
Preload class C	81 N/micron



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Preload class D	107 N/micron
d_1	22.6 mm
d_2	22.6 mm
D_1	29.3 mm
C_1	6.05 mm
$r_{1,2}$ min.	0.3 mm
$r_{3,4}$ min.	0.2 mm
d_a min.	19 mm
d_b min.	19 mm
D_a max.	33 mm
D_b max.	33.6 mm
r_a max.	0.3 mm
r_b max.	0.2 mm
d_n	23.7 mm
Basic dynamic load rating C	6.5 kN
Basic static load rating C_0	3.1 kN
Fatigue load limit P_u	0.132 kN
Attainable speed for grease lubrication	45000 r/min
Attainable speed for oil-air lubrication	70000 r/min
Ball diameter D_w	5.556 mm
Number of balls z	12
Reference grease quantity G_{ref}	0.54 cm ³
Preload class A G_A	40 N
Static axial stiffness, preload class A	48 N/ μ m
Preload class B G_B	80 N
Static axial stiffness, preload class B	62 N/ μ m
Preload class C G_C	160 N
Static axial stiffness, preload class C	81 N/ μ m



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Preload class D G_D	320 N
Static axial stiffness, preload class D	107 N/ μ 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_{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	0.038 kg