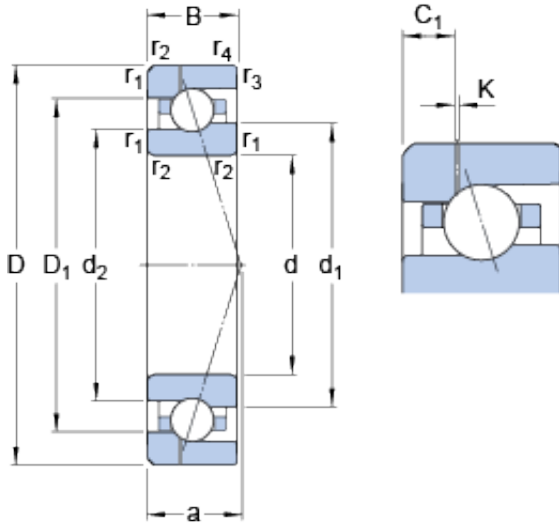




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7011 ACE/P4AH1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 7011 ACE/P4AH1

7011 ACE/P4AH1 Bearing 2D drawings and 3D CAD models

Size	90x55x18 mm
Bore Diameter	90 mm
Outer Diameter	55 mm
Width	18 mm
d	55 mm
D	90 mm
B	18 mm
d ₁	67.73 mm
d ₂	65.6 mm
D ₁	77.25 mm
K	0.5 mm
C ₁	6.3 mm
r _{1,2} - min.	1.1 mm
r _{3,4} - min.	0.6 mm
a	26.1 mm
d _a - min.	61 mm
d _b - min.	61 mm
D _a - max.	84 mm
D _b - max.	85.8 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	69.6 mm
Basic dynamic load rating - C	15.9 kN
Basic static load rating - C ₀	11.6 kN



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Fatigue load limit - P_u	0.49 kN
Limiting speed for grease lubrication	19000 r/min
Limiting speed for oil lubrication	30000 mm/min
Ball - D_w	7.938 mm
Ball - z	24
G_{ref}	5 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	140 N
Preload class B - G_B	430 N
Preload class C - G_C	860 N
Calculation factor - f	1.07
Calculation factor - f_1	0.99
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.03
Calculation factor - f_{2C}	1.06
Calculation factor - f_{HC}	1
Preload class A	116 N/micron
Preload class B	174 N/micron
Preload class C	226 N/micron
d_1	67.73 mm
d_2	65.6 mm



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D_1	77.25 mm
C_1	6.3 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	61 mm
d_b min.	61 mm
D_a max.	84 mm
D_b max.	85.8 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	69.6 mm
Basic dynamic load rating C	15.9 kN
Basic static load rating C_0	11.6 kN
Fatigue load limit P_u	0.49 kN
Attainable speed for grease lubrication	19000 r/min
Attainable speed for oil-air lubrication	30000 r/min
Ball diameter D_w	7.938 mm
Number of balls z	24
Reference grease quantity G_{ref}	5 cm ³
Preload class A G_A	140 N
Static axial stiffness, preload class A	116 N/ μ m
Preload class B G_B	430 N
Static axial stiffness, preload class B	174 N/ μ m
Preload class C G_C	860 N
Static axial stiffness, preload class C	226 N/ μ m
Calculation factor f	1.07
Calculation factor f_1	0.99
Calculation factor f_{2A}	1



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Calculation factor f_{2B}	1.03
Calculation factor f_{2C}	1.06
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	0.39 kg