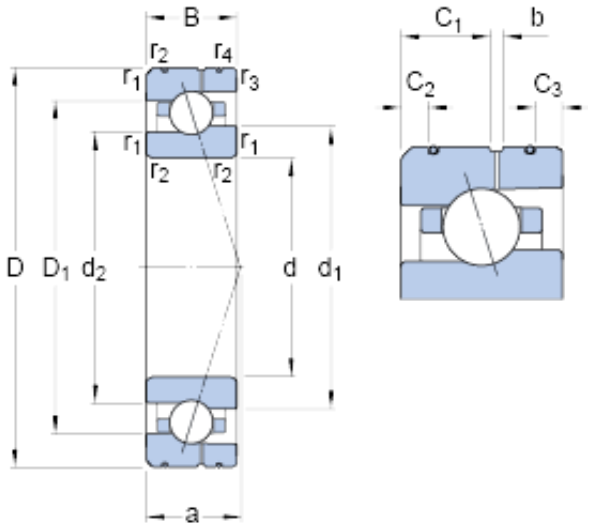

7005 ACE/HCP4AL Bearing 2D drawings and 3D CAD models

25 mm x 47 mm x 12 mm SKF 7005 ACE/HCP4AL angular contact ball bearings

Bearing No. 7005 ACE/HCP4AL

Size	47x25x12 mm
Bore Diameter	47 mm
Outer Diameter	25 mm
Width	12 mm
d	25 mm
D	47 mm
B	12 mm
d_1	31.6 mm
d_2	29.8 mm
D_1	39.21 mm
b	2.1 mm
C_1	5.9 mm
C_2	1.8 mm
C_3	1.9 mm
$r_{1,2}$ - min.	0.6 mm
$r_{3,4}$ - min.	0.3 mm
a	14.4 mm
d_a - min.	28.2 mm
d_b - min.	28.2 mm
D_a - max.	43.8 mm
D_b - max.	44.6 mm
r_a - max.	0.6 mm
r_b - max.	0.3 mm
d_n	33.1 mm

Basic dynamic load rating - C	7.9 kN
Basic static load rating - C_0	3.9 kN
Fatigue load limit - P_u	0.166 kN
Limiting speed for grease lubrication	50000 r/min
Limiting speed for oil lubrication	75000 mm/min
Ball - D_w	6.35 mm
Ball - z	14
G_{ref}	1.3 cm3
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	70 N
Preload class B - G_B	210 N
Preload class C - G_C	430 N
Calculation factor - f	1.05
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}	1.01
Preload class A	66 N/micron
Preload class B	98 N/micron

Preload class C	130 N/micron
d_1	31.6 mm
d_2	29.8 mm
D_1	39.21 mm
C_1	5.9 mm
C_2	1.8 mm
C_3	1.9 mm
$r_{1,2}$ min.	0.6 mm
$r_{3,4}$ min.	0.3 mm
d_a min.	28.2 mm
d_b min.	28.2 mm
D_a max.	43.8 mm
D_b max.	44.6 mm
r_a max.	0.6 mm
r_b max.	0.3 mm
d_n	33.1 mm
Basic dynamic load rating C	7.93 kN
Basic static load rating C_0	3.9 kN
Fatigue load limit P_u	0.166 kN
Attainable speed for grease lubrication	50000 r/min
Attainable speed for oil-air lubrication	75000 r/min
Ball diameter D_w	6.35 mm
Number of balls z	14
Reference grease quantity G_{ref}	1.3 cm^3
Preload class A G_A	70 N
Static axial stiffness, preload class A	66 N/ µ m
Preload class B G_B	210 N
Static axial stiffness, preload class B	98 N/ µ m
Preload class C G_C	430 N

Static axial stiffness, preload class C	130 N/ µ m
Calculation factor f	1.05
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}	1.01
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	0.065 kg