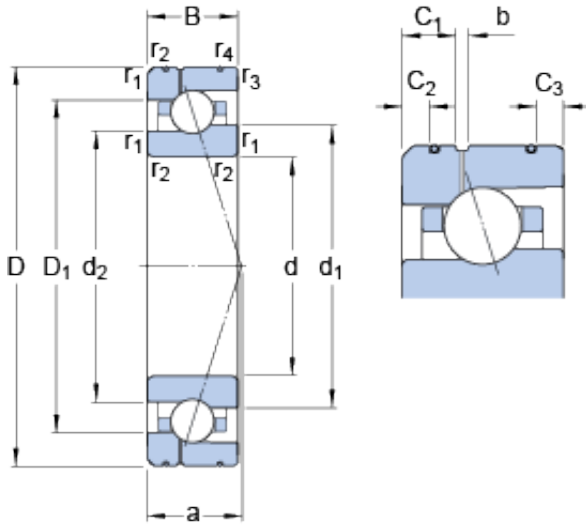




BEARING PRECISION AXLE CORP.



7010 CE/HCP4AL1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 7010 CE/HCP4AL1

7010 CE/HCP4AL1 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	60.25 mm
d ₂	57.9 mm
D ₁	69.75 mm
b	1.6 mm
C ₁	4.7 mm
C ₂	2.7 mm
C ₃	3 mm
r _{1,2} - min.	1 mm
r _{3,4} - min.	0.6 mm
a	16.8 mm
d _a - min.	54.6 mm
d _b - min.	54.6 mm
D _a - max.	75.4 mm
D _b - max.	75.8 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	62.3 mm



BEARING PRECISION AXLE CORP.

Basic dynamic load rating - C	15.6 kN
Basic static load rating - C ₀	10.6 kN
Fatigue load limit - P _u	0.45 kN
Limiting speed for grease lubrication	30000 r/min
Limiting speed for oil lubrication	46000 mm/min
Ball - D _w	7.938 mm
Ball - z	21
G _{ref}	4.1 cm ³
Calculation factor - f ₀	8.2
Preload class A - G _A	85 N
Preload class B - G _B	250 N
Preload class C - G _C	500 N
Calculation factor - f	1.08
Calculation factor - f	1
Calculation factor - f _{2A}	1
Calculation factor - f _{2B}	1.03
Calculation factor - f _{2C}	1.05
Calculation factor - f _{HC}	1.01
Preload class A	46 N/micron
Preload class B	72 N/micron
Preload class C	98 N/micron
d ₁	60.25 mm
d ₂	57.9 mm
D ₁	69.75 mm
C ₁	4.7 mm
C ₂	2.7 mm
C ₃	3 mm
r _{1,2} min.	1 mm



BEARING PRECISION AXLE CORP.

$r_{3,4}$ 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.	75.8 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	62.3 mm
Basic dynamic load rating C	15.6 kN
Basic static load rating C_0	10.6 kN
Fatigue load limit P_u	0.45 kN
Attainable speed for grease lubrication	30000 r/min
Attainable speed for oil-air lubrication	46000 r/min
Ball diameter D_w	7.938 mm
Number of balls z	21
Reference grease quantity G_{ref}	4.1 cm ³
Preload class A G_A	85 N
Static axial stiffness, preload class A	46 N/ μ m
Preload class B G_B	250 N
Static axial stiffness, preload class B	72 N/ μ m
Preload class C G_C	500 N
Static axial stiffness, preload class C	98 N/ μ m
Calculation factor f	1.08
Calculation factor f_1	1
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.03
Calculation factor f_{2C}	1.05
Calculation factor f_{HC}	1.01



BEARING PRECISION AXLE CORP.

Calculation factor f_0	8.2
Mass bearing	0.23 kg