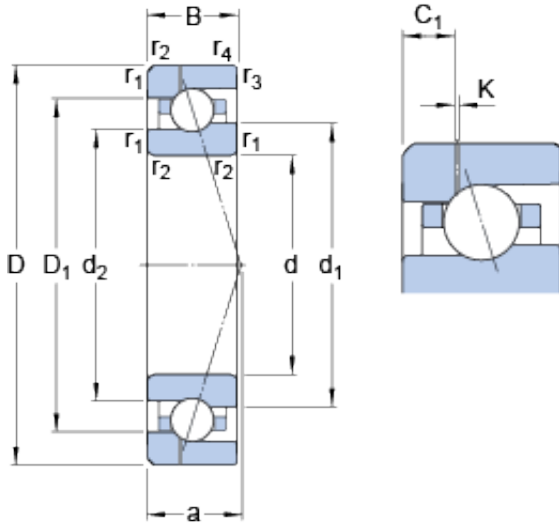




# BEARING PRECISION AXLE CORP.



## 7010 CE/HCP4AH1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 7010 CE/HCP4AH1

7010 CE/HCP4AH1 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 <sub>1</sub>	60.25 mm
d <sub>2</sub>	57.9 mm
D <sub>1</sub>	69.75 mm
K	0.5 mm
C <sub>1</sub>	5.32 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	16.8 mm
d <sub>a</sub> - min.	54.6 mm
d <sub>b</sub> - min.	54.6 mm
D <sub>a</sub> - max.	75.4 mm
D <sub>b</sub> - max.	75.8 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	62.3 mm
Basic dynamic load rating - C	15.6 kN
Basic static load rating - C <sub>0</sub>	10.6 kN



## BEARING PRECISION AXLE CORP.

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 <sup>3</sup>
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
$C_1$	5.32 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ 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



## BEARING PRECISION AXLE CORP.

$r_a$ 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 <sup>3</sup>
Preload class A $G_A$	85 N
Static axial stiffness, preload class A	46 N/ $\mu$ m
Preload class B $G_B$	250 N
Static axial stiffness, preload class B	72 N/ $\mu$ m
Preload class C $G_C$	500 N
Static axial stiffness, preload class C	98 N/ $\mu$ 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
Calculation factor $f_0$	8.2
Mass bearing	0.23 kg