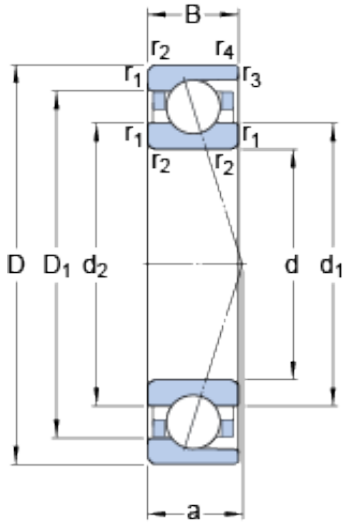




# BEARING PRECISION AXLE CORP.



## 7011 CD/HCP4A SKF High Speed Angular Contact Ball Bearings

Bearing No. 7011 CD/HCP4A

7011 CD/HCP4A 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 <sub>1</sub>	65.8 mm
d <sub>2</sub>	65.8 mm
D <sub>1</sub>	79.2 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	18.8 mm
d <sub>a</sub> - min.	61 mm
d <sub>b</sub> - min.	61 mm
D <sub>a</sub> - max.	84 mm
D <sub>b</sub> - max.	86.8 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	68.1 mm
Basic dynamic load rating - C	39.7 kN
Basic static load rating - C <sub>0</sub>	32.5 kN
Fatigue load limit - P <sub>u</sub>	1.4 kN
Limiting speed for grease	18000 r/min



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Lubrication	
Limiting speed for oil lubrication	28000 mm/min
Ball - $D_w$	11.112 mm
Ball - $z$	18
$G_{ref}$	5.1 cm <sup>3</sup>
Calculation factor - $f_0$	15.1
Preload class A - $G_A$	150 N
Preload class B - $G_B$	300 N
Preload class C - $G_C$	600 N
Preload class D - $G_D$	1200 N
Calculation factor - $f$	1.1
Calculation factor - $f$	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.02
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{2D}$	1.09
Calculation factor - $f_{HC}$	1.02
Preload class A	75 N/micron
Preload class B	102 N/micron
Preload class C	143 N/micron
Preload class D	207 N/micron
$d_1$	65.8 mm
$d_2$	65.8 mm
$D_1$	79.2 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



## BEARING PRECISION AXLE CORP.

$D_b$ max.	86.8 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	68.1 mm
Basic dynamic load rating C	39.7 kN
Basic static load rating $C_0$	32.5 kN
Fatigue load limit $P_u$	1.37 kN
Attainable speed for grease lubrication	18000 r/min
Attainable speed for oil-air lubrication	28000 r/min
Ball diameter $D_w$	11.112 mm
Number of balls z	18
Reference grease quantity $G_{ref}$	5.1 cm <sup>3</sup>
Preload class A $G_A$	150 N
Static axial stiffness, preload class A	75 N/ $\mu$ m
Preload class B $G_B$	300 N
Static axial stiffness, preload class B	102 N/ $\mu$ m
Preload class C $G_C$	600 N
Static axial stiffness, preload class C	143 N/ $\mu$ m
Preload class D $G_D$	1200 N
Static axial stiffness, preload class D	207 N/ $\mu$ m
Calculation factor f	1.1
Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.02
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{2D}$	1.09
Calculation factor $f_{HC}$	1.02



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Calculation factor $f_0$	15.1
Mass bearing	0.32 kg