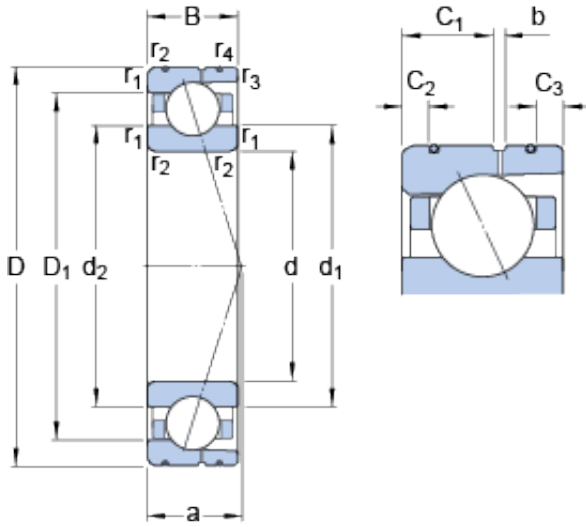




# BEARING PRECISION AXLE CORP.



## 71912 ACD/HCP4AL SKF High Speed Angular Contact Ball Bearings

Bearing No. 71912 ACD/HCP4AL

71912 ACD/HCP4AL Bearing 2D drawings and 3D CAD models

Size	85x60x13 mm
Bore Diameter	85 mm
Outer Diameter	60 mm
Width	13 mm
d	60 mm
D	85 mm
B	13 mm
d <sub>1</sub>	67.7 mm
d <sub>2</sub>	67.7 mm
D <sub>1</sub>	77.3 mm
b	2.2 mm
C <sub>1</sub>	6.5 mm
C <sub>2</sub>	3.2 mm
C <sub>3</sub>	2 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.3 mm
a	23.5 mm
d <sub>a</sub> - min.	64.6 mm
d <sub>b</sub> - min.	64.6 mm
D <sub>a</sub> - max.	80.4 mm
D <sub>b</sub> - max.	83 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>n</sub>	69.7 mm



## BEARING PRECISION AXLE CORP.

Basic dynamic load rating - C	18.6 kN
Basic static load rating - C <sub>0</sub>	14.6 kN
Fatigue load limit - P <sub>u</sub>	0.62 kN
Limiting speed for grease lubrication	16000 r/min
Limiting speed for oil lubrication	26000 mm/min
Ball - D <sub>w</sub>	7.938 mm
Ball - z	24
G <sub>ref</sub>	2.7 cm <sup>3</sup>
Calculation factor - e	0.68
Calculation factor - Y <sub>2</sub>	0.87
Calculation factor - Y <sub>0</sub>	0.38
Calculation factor - X <sub>2</sub>	0.41
Calculation factor - Y <sub>1</sub>	0.92
Calculation factor - Y <sub>2</sub>	1.41
Calculation factor - Y <sub>0</sub>	0.76
Calculation factor - X <sub>2</sub>	0.67
Preload class A - G <sub>A</sub>	120 N
Preload class B - G <sub>B</sub>	240 N
Preload class C - G <sub>C</sub>	480 N
Preload class D - G <sub>D</sub>	960 N
Calculation factor - f	1.17
Calculation factor - f <sub>1</sub>	0.98
Calculation factor - f <sub>2A</sub>	1
Calculation factor - f <sub>2B</sub>	1.07
Calculation factor - f <sub>2C</sub>	1.12
Calculation factor - f <sub>2D</sub>	1.17
Calculation factor - f <sub>HC</sub>	1.04



## BEARING PRECISION AXLE CORP.

Preload class A	142 N/micron
Preload class B	184 N/micron
Preload class C	242 N/micron
Preload class D	324 N/micron
$d_1$	67.7 mm
$d_2$	67.7 mm
$D_1$	77.3 mm
$C_1$	6.5 mm
$C_2$	3.2 mm
$C_3$	2 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.3 mm
$d_a$ min.	64.6 mm
$d_b$ min.	64.6 mm
$D_a$ max.	80.4 mm
$D_b$ max.	83 mm
$r_a$ max.	1 mm
$r_b$ max.	0.3 mm
$d_n$	69.7 mm
Basic dynamic load rating C	18.6 kN
Basic static load rating $C_0$	14.6 kN
Fatigue load limit $P_u$	0.62 kN
Attainable speed for grease lubrication	16000 r/min
Attainable speed for oil-air lubrication	26000 r/min
Ball diameter $D_w$	7.938 mm
Number of balls z	24
Reference grease quantity $G_{ref}$	2.7 cm <sup>3</sup>
Preload class A $G_A$	120 N
Static axial stiffness, preload class A	142 N/ $\mu$ m



## BEARING PRECISION AXLE CORP.

Preload class B $G_B$	240 N
Static axial stiffness, preload class B	184 N/ $\mu$ m
Preload class C $G_C$	480 N
Static axial stiffness, preload class C	242 N/ $\mu$ m
Preload class D $G_D$	960 N
Static axial stiffness, preload class D	324 N/ $\mu$ m
Calculation factor $f$	1.17
Calculation factor $f_1$	0.98
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.07
Calculation factor $f_{2C}$	1.12
Calculation factor $f_{2D}$	1.17
Calculation factor $f_{HC}$	1.04
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	0.16 kg