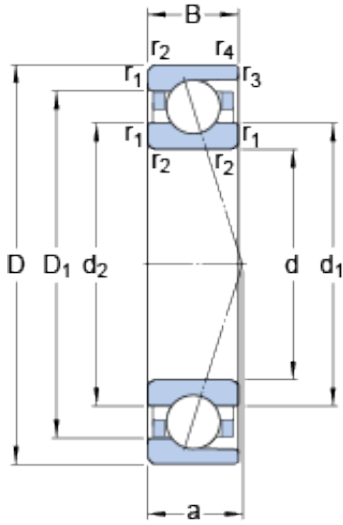




# BEARING PRECISION AXLE CORP.



71811 ACD/P4 Bearing 2D drawings and 3D CAD models

## 71811 ACD/P4 SKF High Speed Angular Contact Ball Bearings

Bearing No. 71811 ACD/P4

Size	72x55x9 mm
Bore Diameter	72 mm
Outer Diameter	55 mm
Width	9 mm
d	55 mm
D	72 mm
B	9 mm
d <sub>1</sub>	60.7 mm
d <sub>2</sub>	60.7 mm
D <sub>1</sub>	66.5 mm
r <sub>1,2</sub> - min.	0.3 mm
r <sub>3,4</sub> - min.	0.15 mm
a	19.3 mm
d <sub>a</sub> - min.	57 mm
d <sub>b</sub> - min.	57 mm
D <sub>a</sub> - max.	70 mm
D <sub>b</sub> - max.	71.2 mm
r <sub>a</sub> - max.	0.3 mm
r <sub>b</sub> - max.	0.15 mm
d <sub>n</sub>	61.3 mm
Basic dynamic load rating - C	9.6 kN
Basic static load rating - C <sub>0</sub>	10.2 kN
Fatigue load limit - P <sub>u</sub>	0.43 kN
Limiting speed for grease	16000 r/min



## BEARING PRECISION AXLE CORP.

Lubrication	
Limiting speed for oil lubrication	24000 mm/min
Ball - $D_w$	4.762 mm
Ball - $z$	29
$G_{ref}$	0.88 cm <sup>3</sup>
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 - $G_A$	87 N
Preload class B - $G_B$	260 N
Preload class C - $G_C$	520 N
Calculation factor - $f$	1.27
Calculation factor - $f_1$	0.97
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.08
Calculation factor - $f_{2C}$	1.15
Calculation factor - $f_{HC}$	1
Preload class A	124 N/micron
Preload class B	195 N/micron
Preload class C	268 N/micron
$d_1$	60.7 mm
$d_2$	60.7 mm
$D_1$	66.5 mm
$r_{1,2}$ min.	0.3 mm



## BEARING PRECISION AXLE CORP.

$r_{3,4}$ min.	0.15 mm
$d_a$ min.	57 mm
$d_b$ min.	57 mm
$D_a$ max.	70 mm
$D_b$ max.	71.2 mm
$r_a$ max.	0.3 mm
$r_b$ max.	0.15 mm
$d_n$	61.3 mm
Basic dynamic load rating C	9.56 kN
Basic static load rating $C_0$	10.2 kN
Fatigue load limit $P_u$	0.43 kN
Attainable speed for grease lubrication	16000 r/min
Attainable speed for oil-air lubrication	24000 r/min
Ball diameter $D_w$	4.762 mm
Number of balls z	29
Reference grease quantity $G_{ref}$	0.88 cm <sup>3</sup>
Preload class A $G_A$	87 N
Static axial stiffness, preload class A	124 N/ $\mu$ m
Preload class B $G_B$	260 N
Static axial stiffness, preload class B	195 N/ $\mu$ m
Preload class C $G_C$	520 N
Static axial stiffness, preload class C	268 N/ $\mu$ m
Calculation factor f	1.27
Calculation factor $f_1$	0.97
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.08
Calculation factor $f_{2C}$	1.15
Calculation factor $f_{HC}$	1



## BEARING PRECISION AXLE CORP.

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	0.081 kg