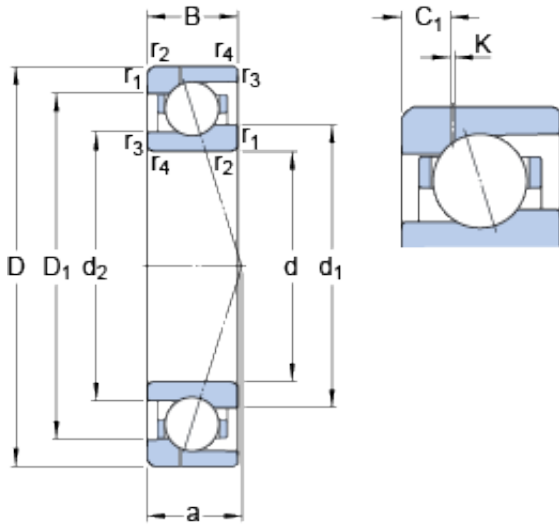




# BEARING PRECISION AXLE CORP.



## 71911 ACE/P4AH1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 71911 ACE/P4AH1

71911 ACE/P4AH1 Bearing 2D drawings and 3D CAD models

Size	80x55x13 mm
Bore Diameter	80 mm
Outer Diameter	55 mm
Width	13 mm
d	55 mm
D	80 mm
B	13 mm
d <sub>1</sub>	62.75 mm
d <sub>2</sub>	60.7 mm
D <sub>1</sub>	72.3 mm
K	0.5 mm
C <sub>1</sub>	3.83 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.	59.6 mm
d <sub>b</sub> - min.	57 mm
D <sub>a</sub> - max.	75.4 mm
D <sub>b</sub> - max.	78 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>n</sub>	64.6 mm
Basic dynamic load rating - C	14.6 kN
Basic static load rating - C <sub>0</sub>	10.2 kN



## BEARING PRECISION AXLE CORP.

Fatigue load limit - $P_u$	0.43 kN
Limiting speed for grease lubrication	21000 r/min
Limiting speed for oil lubrication	32000 mm/min
Ball - $D_w$	7.938 mm
Ball - $z$	21
$G_{ref}$	2.3 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 - $G_A$	133 N
Preload class B - $G_B$	400 N
Preload class C - $G_C$	800 N
Calculation factor - $f$	1.16
Calculation factor - $f_1$	0.99
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.04
Calculation factor - $f_{2C}$	1.07
Calculation factor - $f_{HC}$	1
Preload class A	105 N/micron
Preload class B	160 N/micron
Preload class C	210 N/micron
$d_1$	62.75 mm
$d_2$	60.7 mm



## BEARING PRECISION AXLE CORP.

$D_1$	72.3 mm
$C_1$	3.83 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.3 mm
$d_a$ min.	59.6 mm
$d_b$ min.	57 mm
$D_a$ max.	75.4 mm
$D_b$ max.	78 mm
$r_a$ max.	1 mm
$r_b$ max.	0.3 mm
$d_n$	64.6 mm
Basic dynamic load rating C	14.6 kN
Basic static load rating $C_0$	10.2 kN
Fatigue load limit $P_u$	0.43 kN
Attainable speed for grease lubrication	21000 r/min
Attainable speed for oil-air lubrication	32000 r/min
Ball diameter $D_w$	7.938 mm
Number of balls z	21
Reference grease quantity $G_{ref}$	2.3 cm <sup>3</sup>
Preload class A $G_A$	133 N
Static axial stiffness, preload class A	105 N/ $\mu$ m
Preload class B $G_B$	400 N
Static axial stiffness, preload class B	160 N/ $\mu$ m
Preload class C $G_C$	800 N
Static axial stiffness, preload class C	210 N/ $\mu$ m
Calculation factor f	1.16
Calculation factor $f_1$	0.99
Calculation factor $f_{2A}$	1



## BEARING PRECISION AXLE CORP.

Calculation factor $f_{2B}$	1.04
Calculation factor $f_{2C}$	1.07
Calculation factor $f_{HC}$	1
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	0.17 kg