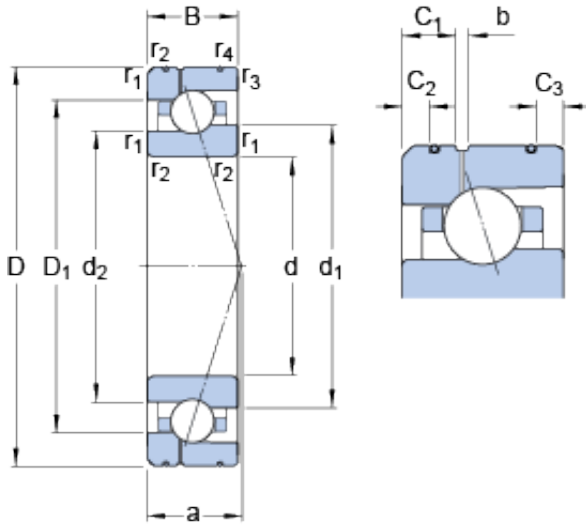




# BEARING PRECISION AXLE CORP.



## 7012 CE/P4AL1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 7012 CE/P4AL1

7012 CE/P4AL1 Bearing 2D drawings and 3D CAD models

Size	95x60x18 mm
Bore Diameter	95 mm
Outer Diameter	60 mm
Width	18 mm
d	60 mm
D	95 mm
B	18 mm
d <sub>1</sub>	72.74 mm
d <sub>2</sub>	70.6 mm
D <sub>1</sub>	82.22 mm
b	1.6 mm
C <sub>1</sub>	5.65 mm
C <sub>2</sub>	3.4 mm
C <sub>3</sub>	3.4 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	19.5 mm
d <sub>a</sub> - min.	66 mm
d <sub>b</sub> - min.	66 mm
D <sub>a</sub> - max.	89 mm
D <sub>b</sub> - max.	90.8 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	74.6 mm



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Basic dynamic load rating - C	17.2 kN
Basic static load rating - C <sub>0</sub>	12.9 kN
Fatigue load limit - P <sub>u</sub>	0.54 kN
Limiting speed for grease lubrication	20000 r/min
Limiting speed for oil lubrication	31000 mm/min
Ball - D <sub>w</sub>	7.938 mm
Ball - z	25
G <sub>ref</sub>	5.3 cm <sup>3</sup>
Calculation factor - f <sub>0</sub>	8.5
Preload class A - G <sub>A</sub>	92 N
Preload class B - G <sub>B</sub>	275 N
Preload class C - G <sub>C</sub>	550 N
Calculation factor - f	1.08
Calculation factor - f	1
Calculation factor - f <sub>2A</sub>	1
Calculation factor - f <sub>2B</sub>	1.03
Calculation factor - f <sub>2C</sub>	1.05
Calculation factor - f <sub>HC</sub>	1
Preload class A	48 N/micron
Preload class B	75 N/micron
Preload class C	101 N/micron
d <sub>1</sub>	72.74 mm
d <sub>2</sub>	70.6 mm
D <sub>1</sub>	82.22 mm
C <sub>1</sub>	5.65 mm
C <sub>2</sub>	3.4 mm
C <sub>3</sub>	3.4 mm
r <sub>1,2</sub> min.	1.1 mm



## BEARING PRECISION AXLE CORP.

$r_{3,4}$ min.	0.6 mm
$d_a$ min.	66 mm
$d_b$ min.	66 mm
$D_a$ max.	89 mm
$D_b$ max.	90.8 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	74.6 mm
Basic dynamic load rating C	17.2 kN
Basic static load rating $C_0$	12.9 kN
Fatigue load limit $P_u$	0.54 kN
Attainable speed for grease lubrication	20000 r/min
Attainable speed for oil-air lubrication	31000 r/min
Ball diameter $D_w$	7.938 mm
Number of balls z	25
Reference grease quantity $G_{ref}$	5.3 cm <sup>3</sup>
Preload class A $G_A$	92 N
Static axial stiffness, preload class A	48 N/ $\mu$ m
Preload class B $G_B$	275 N
Static axial stiffness, preload class B	75 N/ $\mu$ m
Preload class C $G_C$	550 N
Static axial stiffness, preload class C	101 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



## BEARING PRECISION AXLE CORP.

Calculation factor $f_0$	8.5
Mass bearing	0.42 kg