



# FAG BEARING LIMITED



7024 CB/HCP4A Bearing 2D drawings and 3D CAD models

## 120 mm x 180 mm x 28 mm SKF 7024 CB/HCP4A angular contact ball bearings

Bearing No. 7024 CB/HCP4A

Size	180x120x28 mm
Bore Diameter	180 mm
Outer Diameter	120 mm
Width	28 mm
d	120 mm
D	180 mm
B	28 mm
d <sub>1</sub>	143.2 mm
d <sub>2</sub>	140.8 mm
D <sub>2</sub>	161.9 mm
r <sub>1,2</sub> - min.	2 mm
r <sub>3,4</sub> - min.	1 mm
a	34.2 mm
d <sub>a</sub> - min.	129 mm
d <sub>b</sub> - min.	129 mm
D <sub>a</sub> - max.	171 mm
D <sub>b</sub> - max.	175.4 mm
r <sub>a</sub> - max.	2 mm
r <sub>b</sub> - max.	1 mm
d <sub>n</sub>	144.7 mm
Basic dynamic load rating - C	37.7 kN
Basic static load rating - C <sub>0</sub>	39 kN
Fatigue load limit - P <sub>u</sub>	1.3 kN
Limiting speed for grease	11000 r/min



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Lubrication	
Limiting speed for oil lubrication	17000 mm/min
Ball - $D_w$	11.112 mm
Ball - $z$	33
$G_{ref}$	23.69 cm <sup>3</sup>
Calculation factor - $f_0$	9.8
Preload class A - $G_A$	130 N
Preload class B - $G_B$	260 N
Preload class C - $G_C$	780 N
Calculation factor - $f$	1.08
Calculation factor - $f$	1
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.02
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{HC}$	1.01
Preload class A	84 N/micron
Preload class B	110 N/micron
Preload class C	173 N/micron
$d_1$	143.2 mm
$d_2$	140.8 mm
$D_2$	161.9 mm
$r_{1,2}$ min.	2 mm
$r_{3,4}$ min.	1 mm
$d_a$ min.	129 mm
$d_b$ min.	129 mm
$D_a$ max.	171 mm
$D_b$ max.	175.4 mm
$r_a$ max.	2 mm
$r_b$ max.	1 mm
$d_n$	144.7 mm



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Basic dynamic load rating C	50.7 kN
Basic static load rating $C_0$	63 kN
Fatigue load limit $P_u$	1.34 kN
Attainable speed for grease lubrication	11000 r/min
Attainable speed for oil-air lubrication	17000 r/min
Ball diameter $D_w$	11.112 mm
Number of balls z	33
Reference grease quantity $G_{ref}$	23.69 cm <sup>3</sup>
Preload class A $G_A$	130 N
Static axial stiffness, preload class A	84 N/ $\mu$ m
Preload class B $G_B$	260 N
Static axial stiffness, preload class B	110 N/ $\mu$ m
Preload class C $G_C$	780 N
Static axial stiffness, preload class C	173 N/ $\mu$ m
Calculation factor f	1.08
Calculation factor $f_1$	1
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.02
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{HC}$	1.01
Calculation factor $f_0$	9.8
Mass bearing	2.24 kg