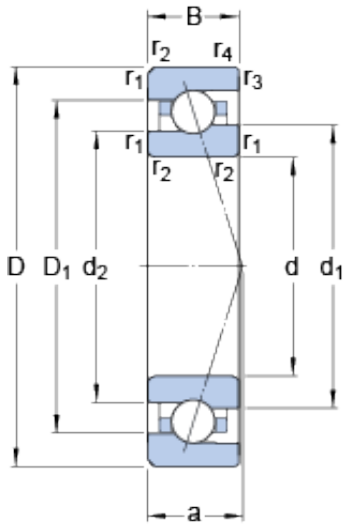




KOYO PRECISION AXLE CORP.



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

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

Bearing No. 7024 ACE/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 ₁	141.42 mm
d ₂	137.8 mm
D ₁	158.61 mm
r _{1,2} - min.	2 mm
r _{3,4} - min.	1 mm
a	49.3 mm
d _a - min.	128.8 mm
d _b - min.	128.8 mm
D _a - max.	171.2 mm
D _b - max.	174.4 mm
r _a - max.	2 mm
r _b - max.	1 mm
d _n	144.9 mm
Basic dynamic load rating - C	54 kN
Basic static load rating - C ₀	52 kN
Fatigue load limit - P _u	1.8 kN
Limiting speed for grease	10000 r/min



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Lubrication	
Limiting speed for oil lubrication	15500 mm/min
Ball - D_w	14.288 mm
Ball - z	29
G_{ref}	28 cm ³
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	490 N
Preload class B - G_B	1480 N
Preload class C - G_C	2950 N
Calculation factor - f	1.12
Calculation factor - f_1	0.99
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.03
Calculation factor - f_{2C}	1.06
Calculation factor - f_{HC}	1.01
Preload class A	288 N/micron
Preload class B	433 N/micron
Preload class C	568 N/micron
d_1	141.42 mm
d_2	137.8 mm
D_1	158.61 mm
$r_{1,2}$ min.	2 mm



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$r_{3,4}$ min.	1 mm
d_a min.	128.8 mm
d_b min.	128.8 mm
D_a max.	171.2 mm
D_b max.	174.4 mm
r_a max.	2 mm
r_b max.	1 mm
d_n	144.9 mm
Basic dynamic load rating C	54 kN
Basic static load rating C_0	52 kN
Fatigue load limit P_u	1.8 kN
Attainable speed for grease lubrication	10000 r/min
Attainable speed for oil-air lubrication	15500 r/min
Ball diameter D_w	14.288 mm
Number of balls z	29
Reference grease quantity G_{ref}	28 cm ³
Preload class A G_A	490 N
Static axial stiffness, preload class A	288 N/ μ m
Preload class B G_B	1480 N
Static axial stiffness, preload class B	433 N/ μ m
Preload class C G_C	2950 N
Static axial stiffness, preload class C	568 N/ μ m
Calculation factor f	1.12
Calculation factor f_1	0.99
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.03
Calculation factor f_{2C}	1.06
Calculation factor f_{HC}	1.01



KOYO 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	1.96 kg