



NTL BEARINGS LTD.



7014 CD/HCP4AH1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 7014 CD/HCP4AH1

7014 CD/HCP4AH1 Bearing 2D drawings and 3D CAD models

Size	110x70x20 mm
Bore Diameter	110 mm
Outer Diameter	70 mm
Width	20 mm
d	70 mm
D	110 mm
B	20 mm
d ₁	82.3 mm
d ₂	82.3 mm
D ₁	97.7 mm
K	0.5 mm
C ₁	5.39 mm
r _{1,2} - min.	1.1 mm
r _{3,4} - min.	0.6 mm
a	22.1 mm
d _a - min.	76 mm
d _b - min.	76 mm
D _a - max.	104 mm
D _b - max.	106 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	85 mm
Basic dynamic load rating - C	52 kN
Basic static load rating - C ₀	45.5 kN



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Fatigue load limit - P_u	1.9 kN
Limiting speed for grease lubrication	15000 r/min
Limiting speed for oil lubrication	22000 mm/min
Ball - D_w	12.7 mm
Ball - z	19
G_{ref}	8.1 cm ³
Calculation factor - f_0	15.5
Preload class A - G_A	200 N
Preload class B - G_B	400 N
Preload class C - G_C	800 N
Preload class D - G_D	1600 N
Calculation factor - f	1.12
Calculation factor - f	1
Calculation factor - f_{2A}	1
Calculation factor - f_{2B}	1.02
Calculation factor - f_{2C}	1.05
Calculation factor - f_{2D}	1.09
Calculation factor - f_{HC}	1.02
Preload class A	90 N/micron
Preload class B	123 N/micron
Preload class C	173 N/micron
Preload class D	252 N/micron
d_1	82.3 mm
d_2	82.3 mm
D_1	97.7 mm
C_1	5.39 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	76 mm



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d_b min.	76 mm
D_a max.	104 mm
D_b max.	106 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	85 mm
Basic dynamic load rating C	52 kN
Basic static load rating C_0	45.5 kN
Fatigue load limit P_u	1.93 kN
Attainable speed for grease lubrication	15000 r/min
Attainable speed for oil-air lubrication	22000 r/min
Ball diameter D_w	12.7 mm
Number of balls z	19
Reference grease quantity G_{ref}	8.1 cm ³
Preload class A G_A	200 N
Static axial stiffness, preload class A	90 N/ μ m
Preload class B G_B	400 N
Static axial stiffness, preload class B	123 N/ μ m
Preload class C G_C	800 N
Static axial stiffness, preload class C	173 N/ μ m
Preload class D G_D	1600 N
Static axial stiffness, preload class D	252 N/ μ m
Calculation factor f	1.12
Calculation factor f_1	1
Calculation factor f_{2A}	1
Calculation factor f_{2B}	1.02
Calculation factor f_{2C}	1.05



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Calculation factor f_{2D}	1.09
Calculation factor f_{HC}	1.02
Calculation factor f_0	15.5
Mass bearing	0.5 kg