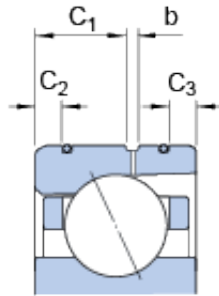
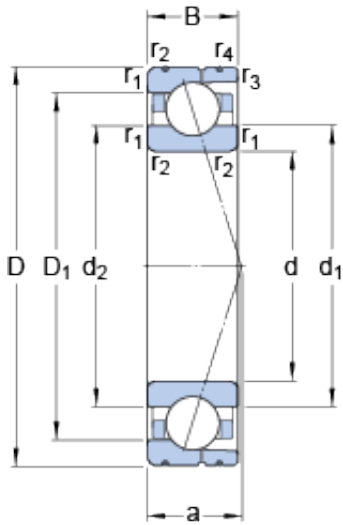




NTN BEARUNG DRIVESHAFT, INC.



65 mm x 100 mm x 18 mm SKF 7013
CD/HCP4AL angular contact ball bearings

Bearing No. 7013 CD/HCP4AL

7013 CD/HCP4AL Bearing 2D drawings and 3D CAD models

Size	100x65x18 mm
Bore Diameter	100 mm
Outer Diameter	65 mm
Width	18 mm
d	65 mm
D	100 mm
B	18 mm
d ₁	75.8 mm
d ₂	75.8 mm
D ₁	89.2 mm
b	1.9 mm
C ₁	9.7 mm
C ₂	4.3 mm
C ₃	3.8 mm
r _{1,2} - min.	1.1 mm
r _{3,4} - min.	0.6 mm
a	20.1 mm
d _a - min.	71 mm
d _b - min.	71 mm
D _a - max.	94 mm
D _b - max.	96.8 mm
r _a - max.	1 mm
r _b - max.	0.6 mm
d _n	78.1 mm



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Basic dynamic load rating - C	41.6 kN
Basic static load rating - C ₀	37.5 kN
Fatigue load limit - P _u	1.6 kN
Limiting speed for grease lubrication	16000 r/min
Limiting speed for oil lubrication	24000 mm/min
Ball - D _w	11.112 mm
Ball - z	20
G _{ref}	5.7 cm ³
Calculation factor - f ₀	15.6
Preload class A - G _A	160 N
Preload class B - G _B	320 N
Preload class C - G _C	640 N
Preload class D - G _D	1280 N
Calculation factor - f	1.13
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	82 N/micron
Preload class B	112 N/micron
Preload class C	158 N/micron
Preload class D	230 N/micron
d ₁	75.8 mm
d ₂	75.8 mm
D ₁	89.2 mm
C ₁	9.7 mm



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C_2	4.3 mm
C_3	3.8 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
d_a min.	71 mm
d_b min.	71 mm
D_a max.	94 mm
D_b max.	96.8 mm
r_a max.	1 mm
r_b max.	0.6 mm
d_n	78.1 mm
Basic dynamic load rating C	41.6 kN
Basic static load rating C_0	37.5 kN
Fatigue load limit P_u	1.6 kN
Attainable speed for grease lubrication	16000 r/min
Attainable speed for oil-air lubrication	24000 r/min
Ball diameter D_w	11.112 mm
Number of balls z	20
Reference grease quantity G_{ref}	5.7 cm ³
Preload class A G_A	160 N
Static axial stiffness, preload class A	82 N/ μ m
Preload class B G_B	320 N
Static axial stiffness, preload class B	112 N/ μ m
Preload class C G_C	640 N
Static axial stiffness, preload class C	158 N/ μ m
Preload class D G_D	1280 N
Static axial stiffness, preload class D	230 N/ μ m



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Calculation factor f	1.13
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_{2D}	1.09
Calculation factor f_{HC}	1.02
Calculation factor f_0	15.6
Mass bearing	0.36 kg