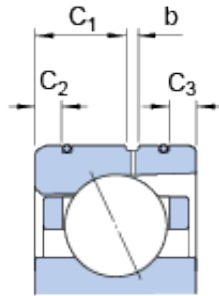
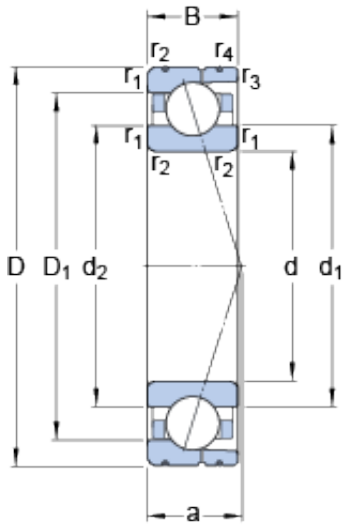




# NTL BEARINGS LTD.



## 7014 CD/HCP4AL SKF High Speed Angular Contact Ball Bearings

Bearing No. 7014 CD/HCP4AL

7014 CD/HCP4AL 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 <sub>1</sub>	82.3 mm
d <sub>2</sub>	82.3 mm
D <sub>1</sub>	97.7 mm
b	1.7 mm
C <sub>1</sub>	10.9 mm
C <sub>2</sub>	4.4 mm
C <sub>3</sub>	3.9 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	22.1 mm
d <sub>a</sub> - min.	76 mm
d <sub>b</sub> - min.	76 mm
D <sub>a</sub> - max.	104 mm
D <sub>b</sub> - max.	106 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	85 mm



## NTL BEARINGS LTD.

Basic dynamic load rating - C	52 kN
Basic static load rating - C <sub>0</sub>	45.5 kN
Fatigue load limit - P <sub>u</sub>	1.9 kN
Limiting speed for grease lubrication	15000 r/min
Limiting speed for oil lubrication	22000 mm/min
Ball - D <sub>w</sub>	12.7 mm
Ball - z	19
G <sub>ref</sub>	8.1 cm <sup>3</sup>
Calculation factor - f <sub>0</sub>	15.5
Preload class A - G <sub>A</sub>	200 N
Preload class B - G <sub>B</sub>	400 N
Preload class C - G <sub>C</sub>	800 N
Preload class D - G <sub>D</sub>	1600 N
Calculation factor - f	1.12
Calculation factor - f	1
Calculation factor - f <sub>2A</sub>	1
Calculation factor - f <sub>2B</sub>	1.02
Calculation factor - f <sub>2C</sub>	1.05
Calculation factor - f <sub>2D</sub>	1.09
Calculation factor - f <sub>HC</sub>	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 <sub>1</sub>	82.3 mm
d <sub>2</sub>	82.3 mm
D <sub>1</sub>	97.7 mm
C <sub>1</sub>	10.9 mm



## NTL BEARINGS LTD.

$C_2$	4.4 mm
$C_3$	3.9 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 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
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 <sup>3</sup>
Preload class A $G_A$	200 N
Static axial stiffness, preload class A	90 N/ $\mu$ m
Preload class B $G_B$	400 N
Static axial stiffness, preload class B	123 N/ $\mu$ m
Preload class C $G_C$	800 N
Static axial stiffness, preload class C	173 N/ $\mu$ m
Preload class D $G_D$	1600 N
Static axial stiffness, preload class D	252 N/ $\mu$ m



## NTL BEARINGS LTD.

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