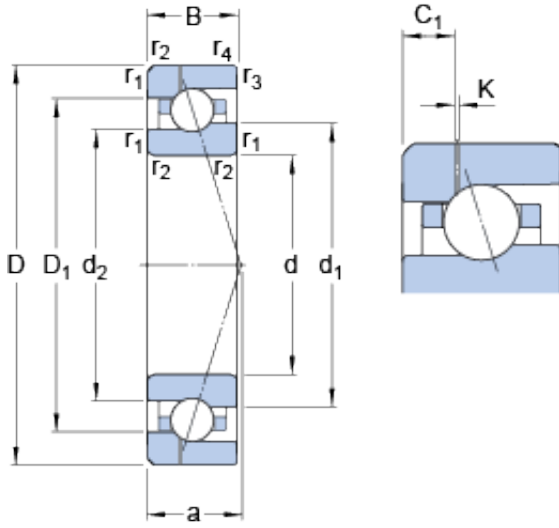




# NTL BEARINGS LTD.



## 7014 ACE/HCP4AH1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 7014 ACE/HCP4AH1

7014 ACE/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 <sub>1</sub>	84.3 mm
d <sub>2</sub>	81.6 mm
D <sub>1</sub>	95.32 mm
K	0.5 mm
C <sub>1</sub>	6.7 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	31.2 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.	105.8 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	86.5 mm
Basic dynamic load rating - C	22.5 kN
Basic static load rating - C <sub>0</sub>	17.3 kN



## NTL BEARINGS LTD.

Fatigue load limit - $P_u$	0.735 kN
Limiting speed for grease lubrication	18500 r/min
Limiting speed for oil lubrication	29000 mm/min
Ball - $D_w$	9.525 mm
Ball - $z$	25
$G_{ref}$	8.2 cm <sup>3</sup>
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 - $G_A$	200 N
Preload class B - $G_B$	610 N
Preload class C - $G_C$	1220 N
Calculation factor - $f$	1.09
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	159 N/micron
Preload class B	238 N/micron
Preload class C	311 N/micron
$d_1$	84.3 mm
$d_2$	81.6 mm



## NTL BEARINGS LTD.

$D_1$	95.32 mm
$C_1$	6.7 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.	105.8 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	86.5 mm
Basic dynamic load rating C	22.5 kN
Basic static load rating $C_0$	17.3 kN
Fatigue load limit $P_u$	0.735 kN
Attainable speed for grease lubrication	18500 r/min
Attainable speed for oil-air lubrication	29000 r/min
Ball diameter $D_w$	9.525 mm
Number of balls z	25
Reference grease quantity $G_{ref}$	8.2 cm <sup>3</sup>
Preload class A $G_A$	200 N
Static axial stiffness, preload class A	159 N/ $\mu$ m
Preload class B $G_B$	610 N
Static axial stiffness, preload class B	238 N/ $\mu$ m
Preload class C $G_C$	1220 N
Static axial stiffness, preload class C	311 N/ $\mu$ m
Calculation factor f	1.09
Calculation factor $f_1$	0.99
Calculation factor $f_{2A}$	1



## NTL BEARINGS LTD.

Calculation factor $f_{2B}$	1.03
Calculation factor $f_{2C}$	1.06
Calculation factor $f_{HC}$	1.01
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	0.56 kg