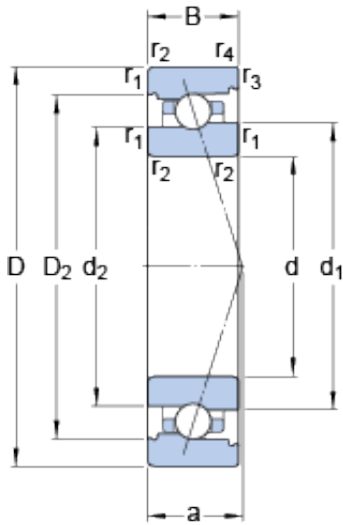




# NTL BEARINGS LTD.

## 7013 ACB/P4A SKF High Speed Angular Contact Ball Bearings

Bearing No. 7013 ACB/P4A



7013 ACB/P4A 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 <sub>1</sub>	78 mm
d <sub>2</sub>	76.36 mm
D <sub>2</sub>	89.69 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	28.4 mm
d <sub>a</sub> - min.	71 mm
d <sub>b</sub> - min.	71 mm
D <sub>a</sub> - max.	94 mm
D <sub>b</sub> - max.	96.8 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	79 mm
Basic dynamic load rating - C	14.6 kN
Basic static load rating - C <sub>0</sub>	12.2 kN
Fatigue load limit - P <sub>u</sub>	0.52 kN
Limiting speed for grease	16000 r/min



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Lubrication	
Limiting speed for oil lubrication	26000 mm/min
Ball - $D_w$	7.144 mm
Ball - $z$	27
$G_{ref}$	5.49 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 - $G_A$	85 N
Preload class B - $G_B$	170 N
Preload class C - $G_C$	510 N
Calculation factor - $f$	1.07
Calculation factor - $f_1$	0.99
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.01
Calculation factor - $f_{2C}$	1.04
Calculation factor - $f_{HC}$	1
Preload class A	107 N/micron
Preload class B	138 N/micron
Preload class C	208 N/micron
$d_1$	78 mm
$d_2$	76.36 mm
$D_2$	89.69 mm
$r_{1,2}$ min.	1.1 mm



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$r_{3,4}$ 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
$d_n$	79 mm
Basic dynamic load rating C	19 kN
Basic static load rating $C_0$	20 kN
Fatigue load limit $P_u$	0.52 kN
Attainable speed for grease lubrication	16000 r/min
Attainable speed for oil-air lubrication	26000 r/min
Ball diameter $D_w$	7.144 mm
Number of balls z	27
Reference grease quantity $G_{ref}$	5.49 cm <sup>3</sup>
Preload class A $G_A$	85 N
Static axial stiffness, preload class A	107 N/ $\mu$ m
Preload class B $G_B$	170 N
Static axial stiffness, preload class B	138 N/ $\mu$ m
Preload class C $G_C$	510 N
Static axial stiffness, preload class C	208 N/ $\mu$ m
Calculation factor f	1.07
Calculation factor $f_1$	0.99
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.01
Calculation factor $f_{2C}$	1.04
Calculation factor $f_{HC}$	1



## NTL BEARINGS LTD.

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	0.47 kg