



# NTL BEARINGS LTD.



## 71914 ACD/P4AH1 SKF High Speed Angular Contact Ball Bearings

Bearing No. 71914 ACD/P4AH1

71914 ACD/P4AH1 Bearing 2D drawings and 3D CAD models

Size	100x70x16 mm
Bore Diameter	100 mm
Outer Diameter	70 mm
Width	16 mm
d	70 mm
D	100 mm
B	16 mm
d <sub>1</sub>	79.2 mm
d <sub>2</sub>	79.2 mm
D <sub>1</sub>	90.8 mm
K	0.5 mm
C <sub>1</sub>	4.46 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.3 mm
a	27.9 mm
d <sub>a</sub> - min.	74.6 mm
d <sub>b</sub> - min.	74.6 mm
D <sub>a</sub> - max.	95.4 mm
D <sub>b</sub> - max.	98 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>n</sub>	81.7 mm
Basic dynamic load rating - C	32.5 kN
Basic static load rating - C <sub>0</sub>	32.5 kN



## NTL BEARINGS LTD.

Fatigue load limit - $P_u$	1.4 kN
Limiting speed for grease lubrication	11000 r/min
Limiting speed for oil lubrication	18000 mm/min
Ball - $D_w$	9.525 mm
Ball - $z$	24
$G_{ref}$	4.5 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 - $G_B$	400 N
Preload class C - $G_C$	800 N
Preload class D - $G_D$	1600 N
Calculation factor - $f$	1.19
Calculation factor - $f_1$	0.98
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.04
Calculation factor - $f_{2C}$	1.08
Calculation factor - $f_{2D}$	1.14
Calculation factor - $f_{HC}$	1
Preload class A	180 N/micron
Preload class B	235 N/micron
Preload class C	314 N/micron



## NTL BEARINGS LTD.

Preload class D	428 N/micron
$d_1$	79.2 mm
$d_2$	79.2 mm
$D_1$	90.8 mm
$C_1$	4.46 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.3 mm
$d_a$ min.	74.6 mm
$d_b$ min.	74.6 mm
$D_a$ max.	95.4 mm
$D_b$ max.	98 mm
$r_a$ max.	1 mm
$r_b$ max.	0.3 mm
$d_n$	81.7 mm
Basic dynamic load rating C	32.5 kN
Basic static load rating $C_0$	32.5 kN
Fatigue load limit $P_u$	1.37 kN
Attainable speed for grease lubrication	11000 r/min
Attainable speed for oil-air lubrication	18000 r/min
Ball diameter $D_w$	9.525 mm
Number of balls z	24
Reference grease quantity $G_{ref}$	4.5 cm <sup>3</sup>
Preload class A $G_A$	200 N
Static axial stiffness, preload class A	180 N/ $\mu$ m
Preload class B $G_B$	400 N
Static axial stiffness, preload class B	235 N/ $\mu$ m
Preload class C $G_C$	800 N
Static axial stiffness, preload class C	314 N/ $\mu$ m



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Preload class D $G_D$	1600 N
Static axial stiffness, preload class D	428 N/ $\mu$ m
Calculation factor f	1.19
Calculation factor $f_1$	0.98
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.04
Calculation factor $f_{2C}$	1.08
Calculation factor $f_{2D}$	1.14
Calculation factor $f_{HC}$	1
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	0.33 kg