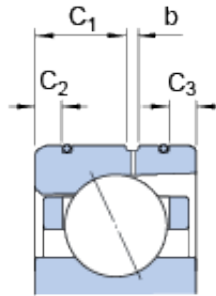
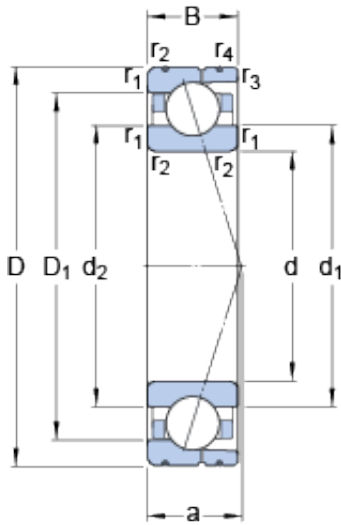




# NTN Bearing Manufacturing



240 mm x 320 mm x 38 mm SKF 71948  
ACD/HCP4AL angular contact ball bearings

Bearing No. 71948 ACD/HCP4AL

71948 ACD/HCP4AL Bearing 2D drawings and 3D CAD models

Size	320x240x38 mm
Bore Diameter	320 mm
Outer Diameter	240 mm
Width	38 mm
d	240 mm
D	320 mm
B	38 mm
d <sub>1</sub>	264.7 mm
d <sub>2</sub>	264.7 mm
D <sub>1</sub>	295.3 mm
b	3.5 mm
C <sub>1</sub>	20.9 mm
C <sub>2</sub>	7.1 mm
C <sub>3</sub>	5.45 mm
r <sub>1,2</sub> - min.	2.1 mm
r <sub>3,4</sub> - min.	1 mm
a	84.5 mm
d <sub>a</sub> - min.	251 mm
d <sub>b</sub> - min.	251 mm
D <sub>a</sub> - max.	309 mm
D <sub>b</sub> - max.	315 mm
r <sub>a</sub> - max.	2 mm
r <sub>b</sub> - max.	1 mm
d <sub>n</sub>	271.4 mm



## NTN Bearing Manufacturing

Basic dynamic load rating - C	216 kN
Basic static load rating - C <sub>0</sub>	305 kN
Fatigue load limit - P <sub>u</sub>	7.8 kN
Limiting speed for grease lubrication	3800 r/min
Limiting speed for oil lubrication	5600 mm/min
Ball - D <sub>w</sub>	25.4 mm
Ball - z	31
G <sub>ref</sub>	93 cm <sup>3</sup>
Calculation factor - e	0.68
Calculation factor - Y <sub>2</sub>	0.87
Calculation factor - Y <sub>0</sub>	0.38
Calculation factor - X <sub>2</sub>	0.41
Calculation factor - Y <sub>1</sub>	0.92
Calculation factor - Y <sub>2</sub>	1.41
Calculation factor - Y <sub>0</sub>	0.76
Calculation factor - X <sub>2</sub>	0.67
Preload class A - G <sub>A</sub>	1350 N
Preload class B - G <sub>B</sub>	2700 N
Preload class C - G <sub>C</sub>	5400 N
Preload class D - G <sub>D</sub>	10800 N
Calculation factor - f	1.32
Calculation factor - f <sub>1</sub>	0.98
Calculation factor - f <sub>2A</sub>	1
Calculation factor - f <sub>2B</sub>	1.07
Calculation factor - f <sub>2C</sub>	1.12
Calculation factor - f <sub>2D</sub>	1.17
Calculation factor - f <sub>HC</sub>	1.04



## NTN Bearing Manufacturing

Preload class A	648 N/micron
Preload class B	851 N/micron
Preload class C	1142 N/micron
Preload class D	1568 N/micron
$d_1$	264.7 mm
$d_2$	264.7 mm
$D_1$	295.3 mm
$C_1$	20.9 mm
$C_2$	7.1 mm
$C_3$	5.45 mm
$r_{1,2}$ min.	2.1 mm
$r_{3,4}$ min.	1 mm
$d_a$ min.	251 mm
$d_b$ min.	251 mm
$D_a$ max.	309 mm
$D_b$ max.	315 mm
$r_a$ max.	2 mm
$r_b$ max.	1 mm
$d_n$	271.4 mm
Basic dynamic load rating C	216 kN
Basic static load rating $C_0$	305 kN
Fatigue load limit $P_u$	7.8 kN
Attainable speed for grease lubrication	3800 r/min
Attainable speed for oil-air lubrication	5600 r/min
Ball diameter $D_w$	25.4 mm
Number of balls z	31
Reference grease quantity $G_{ref}$	93 cm <sup>3</sup>
Preload class A $G_A$	1350 N
Static axial stiffness, preload class A	648 N/ $\mu$ m



## NTN Bearing Manufacturing

Preload class B $G_B$	2700 N
Static axial stiffness, preload class B	851 N/ $\mu$ m
Preload class C $G_C$	5400 N
Static axial stiffness, preload class C	1142 N/ $\mu$ m
Preload class D $G_D$	10800 N
Static axial stiffness, preload class D	1568 N/ $\mu$ m
Calculation factor $f$	1.32
Calculation factor $f_1$	0.98
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.07
Calculation factor $f_{2C}$	1.12
Calculation factor $f_{2D}$	1.17
Calculation factor $f_{HC}$	1.04
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	5.98 kg