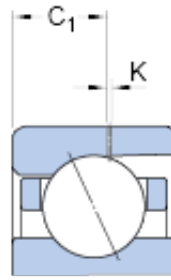
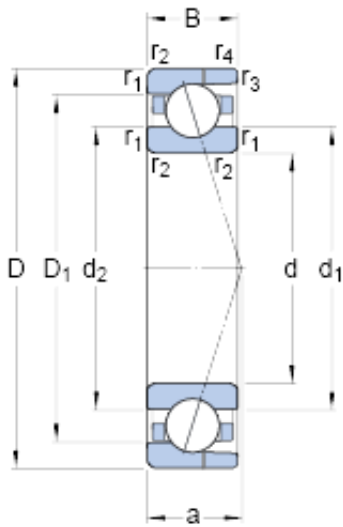




## BEARING DRIVESHAFT, INC.



40 mm x 68 mm x 15 mm SKF 7008  
ACD/HCP4AH angular contact ball bearings

Bearing No. 7008 ACD/HCP4AH

7008 ACD/HCP4AH Bearing 2D drawings and 3D  
CAD models

Size	68x40x15 mm
Bore Diameter	68 mm
Outer Diameter	40 mm
Width	15 mm
d	40 mm
D	68 mm
B	15 mm
d <sub>1</sub>	49.2 mm
d <sub>2</sub>	49.2 mm
D <sub>1</sub>	58.8 mm
K	0.5 mm
C <sub>1</sub>	8.95 mm
r <sub>1,2</sub> - min.	1 mm
r <sub>3,4</sub> - min.	0.3 mm
a	20.2 mm
d <sub>a</sub> - min.	44.6 mm
d <sub>b</sub> - min.	44.6 mm
D <sub>a</sub> - max.	63.4 mm
D <sub>b</sub> - max.	66 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.3 mm
d <sub>n</sub>	50.8 mm
Basic dynamic load rating - C	15.9 kN
Basic static load rating - C <sub>0</sub>	10.4 kN



## BEARING DRIVESHAFT, INC.

Fatigue load limit - $P_u$	0.44 kN
Limiting speed for grease lubrication	22000 r/min
Limiting speed for oil lubrication	34000 mm/min
Ball - $D_w$	7.938 mm
Ball - $z$	18
$G_{ref}$	2.4 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 - $G_A$	100 N
Preload class B - $G_B$	200 N
Preload class C - $G_C$	400 N
Preload class D - $G_D$	800 N
Calculation factor - $f$	1.06
Calculation factor - $f_1$	0.99
Calculation factor - $f_{2A}$	1
Calculation factor - $f_{2B}$	1.02
Calculation factor - $f_{2C}$	1.05
Calculation factor - $f_{2D}$	1.08
Calculation factor - $f_{HC}$	1.02
Preload class A	107 N/micron
Preload class B	138 N/micron
Preload class C	180 N/micron



## BEARING DRIVESHAFT, INC.

Preload class D	238 N/micron
$d_1$	49.2 mm
$d_2$	49.2 mm
$D_1$	58.8 mm
$C_1$	8.95 mm
$r_{1,2}$ min.	1 mm
$r_{3,4}$ min.	0.3 mm
$d_a$ min.	44.6 mm
$d_b$ min.	44.6 mm
$D_a$ max.	63.4 mm
$D_b$ max.	66 mm
$r_a$ max.	1 mm
$r_b$ max.	0.3 mm
$d_n$	50.8 mm
Basic dynamic load rating C	15.9 kN
Basic static load rating $C_0$	10.4 kN
Fatigue load limit $P_u$	0.44 kN
Attainable speed for grease lubrication	22000 r/min
Attainable speed for oil-air lubrication	34000 r/min
Ball diameter $D_w$	7.938 mm
Number of balls z	18
Reference grease quantity $G_{ref}$	2.4 cm <sup>3</sup>
Preload class A $G_A$	100 N
Static axial stiffness, preload class A	107 N/ $\mu$ m
Preload class B $G_B$	200 N
Static axial stiffness, preload class B	138 N/ $\mu$ m
Preload class C $G_C$	400 N
Static axial stiffness, preload class C	180 N/ $\mu$ m



## BEARING DRIVESHAFT, INC.

Preload class D $G_D$	800 N
Static axial stiffness, preload class D	238 N/ $\mu$ m
Calculation factor f	1.06
Calculation factor $f_1$	0.99
Calculation factor $f_{2A}$	1
Calculation factor $f_{2B}$	1.02
Calculation factor $f_{2C}$	1.05
Calculation factor $f_{2D}$	1.08
Calculation factor $f_{HC}$	1.02
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	0.17 kg