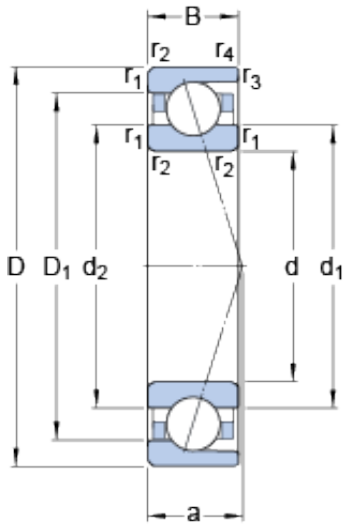




# SKF DRIVESHAFT CORP



85 mm x 120 mm x 18 mm skf 71917  
ACD/HCP4A Super-precision Angular contact  
ball bearings

Bearing No. 71917 ACD/HCP4A

71917 ACD/HCP4A Bearing 2D drawings and 3D CAD  
models

Size	120x85x18 mm
Bore Diameter	120 mm
Outer Diameter	85 mm
Width	18 mm
d	85 mm
D	120 mm
B	18 mm
d <sub>1</sub>	95.8 mm
d <sub>2</sub>	95.8 mm
D <sub>1</sub>	109.2 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	33 mm
d <sub>a</sub> - min.	91 mm
d <sub>b</sub> - min.	91 mm
D <sub>a</sub> - max.	114 mm
D <sub>b</sub> - max.	116 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	98.6 mm
Basic dynamic load rating - C	43.6 kN
Basic static load rating - C <sub>0</sub>	45.5 kN
Fatigue load limit - P <sub>u</sub>	1.9 kN



## SKF DRIVESHAFT CORP

Limiting speed for grease lubrication	11000 r/min
Limiting speed for oil lubrication	18000 mm/min
Ball - $D_w$	11.112 mm
Ball - $z$	25
$G_{ref}$	7.2 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 - $G_A$	270 N
Preload class B - $G_B$	540 N
Preload class C - $G_C$	1080 N
Preload class D - $G_D$	2160 N
Calculation factor - $f$	1.2
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
Preload class A	238 N/micron
Preload class B	312 N/micron
Preload class C	415 N/micron
Preload class D	565 N/micron



## SKF DRIVESHAFT CORP

$d_1$	95.8 mm
$d_2$	95.8 mm
$D_1$	109.2 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
$d_a$ min.	91 mm
$d_b$ min.	91 mm
$D_a$ max.	114 mm
$D_b$ max.	116 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	98.6 mm
Basic dynamic load rating C	43.6 kN
Basic static load rating $C_0$	45.5 kN
Fatigue load limit $P_u$	1.93 kN
Attainable speed for grease lubrication	11000 r/min
Attainable speed for oil-air lubrication	18000 r/min
Ball diameter $D_w$	11.112 mm
Number of balls z	25
Reference grease quantity $G_{ref}$	7.2 cm <sup>3</sup>
Preload class A $G_A$	270 N
Static axial stiffness, preload class A	238 N/ $\mu$ m
Preload class B $G_B$	540 N
Static axial stiffness, preload class B	312 N/ $\mu$ m
Preload class C $G_C$	1080 N
Static axial stiffness, preload class C	415 N/ $\mu$ m
Preload class D $G_D$	2160 N
Static axial stiffness, preload class D	565 N/ $\mu$ m



## SKF DRIVESHAFT CORP

class D	
Calculation factor f	1.2
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	0.45 kg