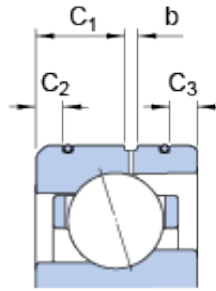
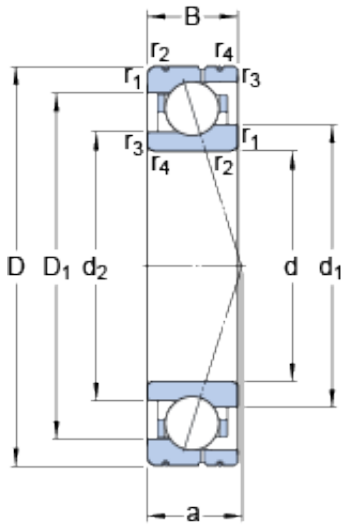




# SKF DRIVESHAFT CORP



100 mm x 140 mm x 20 mm skf 71920  
ACE/HCP4AL Super-precision Angular contact  
ball bearings

Bearing No. 71920 ACE/HCP4AL

71920 ACE/HCP4AL Bearing 2D drawings and 3D  
CAD models

Size	140x100x20 mm
Bore Diameter	140 mm
Outer Diameter	100 mm
Width	20 mm
d	100 mm
D	140 mm
B	20 mm
d <sub>1</sub>	112.4 mm
d <sub>2</sub>	109 mm
D <sub>1</sub>	127.51 mm
b	2.3 mm
C <sub>1</sub>	10.9 mm
C <sub>2</sub>	3 mm
C <sub>3</sub>	3.3 mm
r <sub>1,2</sub> - min.	1.1 mm
r <sub>3,4</sub> - min.	0.6 mm
a	39.2 mm
d <sub>a</sub> - min.	106 mm
d <sub>b</sub> - min.	103.2 mm
D <sub>a</sub> - max.	134 mm
D <sub>b</sub> - max.	136.8 mm
r <sub>a</sub> - max.	1 mm
r <sub>b</sub> - max.	0.6 mm
d <sub>n</sub>	115.4 mm



## SKF DRIVESHAFT CORP

Basic dynamic load rating - C	36.4 kN
Basic static load rating - C <sub>0</sub>	30 kN
Fatigue load limit - P <sub>u</sub>	1.1 kN
Limiting speed for grease lubrication	13700 r/min
Limiting speed for oil lubrication	22000 mm/min
Ball - D <sub>w</sub>	12.7 mm
Ball - z	24
G <sub>ref</sub>	10 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>	332 N
Preload class B - G <sub>B</sub>	996 N
Preload class C - G <sub>C</sub>	1990 N
Calculation factor - f	1.18
Calculation factor - f <sub>1</sub>	0.98
Calculation factor - f <sub>2A</sub>	1
Calculation factor - f <sub>2B</sub>	1.04
Calculation factor - f <sub>2C</sub>	1.08
Calculation factor - f <sub>HC</sub>	1.01
Preload class A	207 N/micron
Preload class B	311 N/micron



## SKF DRIVESHAFT CORP

Preload class C	408 N/micron
$d_1$	112.4 mm
$d_2$	109 mm
$D_1$	127.51 mm
$C_1$	10.9 mm
$C_2$	3 mm
$C_3$	3.3 mm
$r_{1,2}$ min.	1.1 mm
$r_{3,4}$ min.	0.6 mm
$d_a$ min.	106 mm
$d_b$ min.	103.2 mm
$D_a$ max.	134 mm
$D_b$ max.	136.8 mm
$r_a$ max.	1 mm
$r_b$ max.	0.6 mm
$d_n$	115.4 mm
Basic dynamic load rating C	36.4 kN
Basic static load rating $C_0$	30 kN
Fatigue load limit $P_u$	1.14 kN
Attainable speed for grease lubrication	13700 r/min
Attainable speed for oil-air lubrication	22000 r/min
Ball diameter $D_w$	12.7 mm
Number of balls z	24
Reference grease quantity $G_{ref}$	10 cm <sup>3</sup>
Preload class A $G_A$	332 N
Static axial stiffness, preload class A	207 N/ $\mu$ m
Preload class B $G_B$	996 N
Static axial stiffness, preload class B	311 N/ $\mu$ m
Preload class C $G_C$	1990 N



## SKF DRIVESHAFT CORP

Static axial stiffness, preload class C	408 N/ $\mu$ m
Calculation factor f	1.18
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 $f_{HC}$	1.01
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	0.65 kg