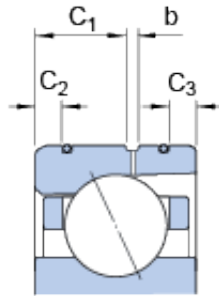
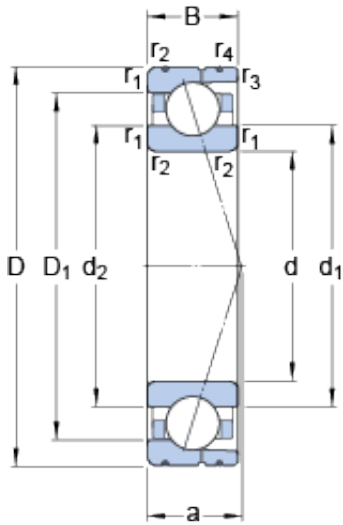




# SKF DRIVESHAFT CORP



55 mm x 80 mm x 13 mm skf 71911  
ACD/HCP4AL Super-precision Angular contact ball bearings

Bearing No. 71911 ACD/HCP4AL

71911 ACD/HCP4AL Bearing 2D drawings and 3D CAD models

|                         |             |
|-------------------------|-------------|
| Size                    | 80x55x13 mm |
| Bore Diameter           | 80 mm       |
| Outer Diameter          | 55 mm       |
| Width                   | 13 mm       |
| d                       | 55 mm       |
| D                       | 80 mm       |
| B                       | 13 mm       |
| d <sub>1</sub>          | 62.7 mm     |
| d <sub>2</sub>          | 62.7 mm     |
| D <sub>1</sub>          | 72.3 mm     |
| b                       | 2.2 mm      |
| C <sub>1</sub>          | 6.5 mm      |
| C <sub>2</sub>          | 3.2 mm      |
| C <sub>3</sub>          | 2 mm        |
| r <sub>1,2</sub> - min. | 1 mm        |
| r <sub>3,4</sub> - min. | 0.3 mm      |
| a                       | 22.4 mm     |
| d <sub>a</sub> - min.   | 59.6 mm     |
| d <sub>b</sub> - min.   | 59.6 mm     |
| D <sub>a</sub> - max.   | 75.4 mm     |
| D <sub>b</sub> - max.   | 78 mm       |
| r <sub>a</sub> - max.   | 1 mm        |
| r <sub>b</sub> - max.   | 0.3 mm      |
| d <sub>n</sub>          | 64.7 mm     |



## SKF DRIVESHAFT CORP

|   |                      |
|---|----------------------|
| Basic dynamic load rating - C             | 18.2 kN              |
| Basic static load rating - C <sub>0</sub> | 13.7 kN              |
| Fatigue load limit - P <sub>u</sub>       | 0.585 kN             |
| Limiting speed for grease lubrication     | 17000 r/min          |
| Limiting speed for oil lubrication        | 28000 mm/min         |
| Ball - D <sub>w</sub>                     | 7.938 mm             |
| Ball - z                                  | 23                   |
| G <sub>ref</sub>                          | 2.49 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>          | 120 N                |
| Preload class B - G <sub>B</sub>          | 240 N                |
| Preload class C - G <sub>C</sub>          | 480 N                |
| Preload class D - G <sub>D</sub>          | 960 N                |
| Calculation factor - f                    | 1.15                 |
| 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                 |



## SKF DRIVESHAFT CORP

|  |                      |
|--|----------------------|
| Preload class A                          | 137 N/micron         |
| Preload class B                          | 179 N/micron         |
| Preload class C                          | 234 N/micron         |
| Preload class D                          | 312 N/micron         |
| $d_1$                                    | 62.7 mm              |
| $d_2$                                    | 62.7 mm              |
| $D_1$                                    | 72.3 mm              |
| $C_1$                                    | 6.5 mm               |
| $C_2$                                    | 3.2 mm               |
| $C_3$                                    | 2 mm                 |
| $r_{1,2}$ min.                           | 1 mm                 |
| $r_{3,4}$ min.                           | 0.3 mm               |
| $d_a$ min.                               | 59.6 mm              |
| $d_b$ min.                               | 59.6 mm              |
| $D_a$ max.                               | 75.4 mm              |
| $D_b$ max.                               | 78 mm                |
| $r_a$ max.                               | 1 mm                 |
| $r_b$ max.                               | 0.3 mm               |
| $d_n$                                    | 64.7 mm              |
| Basic dynamic load rating C              | 18.2 kN              |
| Basic static load rating $C_0$           | 13.7 kN              |
| Fatigue load limit $P_u$                 | 0.585 kN             |
| Attainable speed for grease lubrication  | 17000 r/min          |
| Attainable speed for oil-air lubrication | 28000 r/min          |
| Ball diameter $D_w$                      | 7.938 mm             |
| Number of balls z                        | 23                   |
| Reference grease quantity $G_{ref}$      | 2.49 cm <sup>3</sup> |
| Preload class A $G_A$                    | 120 N                |
| Static axial stiffness, preload class A  | 137 N/ $\mu$ m       |
|  |                      |



## SKF DRIVESHAFT CORP

|   |                |
|---|----------------|
| Preload class B $G_B$                                 | 240 N          |
| Static axial stiffness, preload class B               | 179 N/ $\mu$ m |
| Preload class C $G_C$                                 | 480 N          |
| Static axial stiffness, preload class C               | 234 N/ $\mu$ m |
| Preload class D $G_D$                                 | 960 N          |
| Static axial stiffness, preload class D               | 312 N/ $\mu$ m |
| Calculation factor $f$                                | 1.15           |
| 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  | 0.15 kg        |