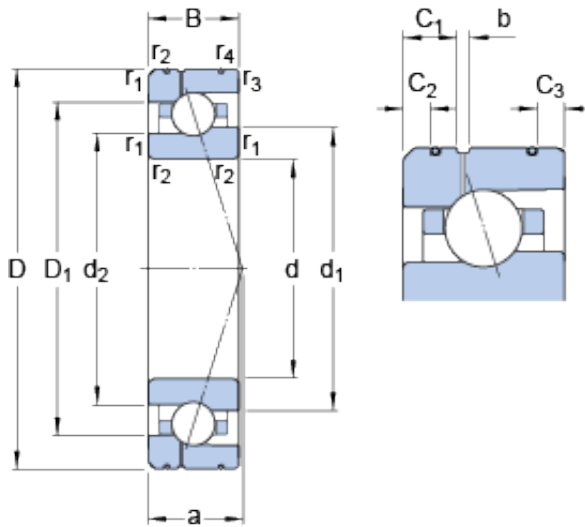




Bearing No. 7011 ACE/HCP4AL1

|                   |                   |
|-------------------|-------------------|
| b                 | 1.6 mm            |
| d                 | 55 mm             |
| a                 | 26.1 mm           |
| B                 | 18 mm             |
| D                 | 90 mm             |
| Ball - z          | 24                |
| Size (mm)         | 90x55x18          |
| Width (mm)        | 18                |
| Mass bearing      | 0.36 kg           |
| d <sub>2</sub>    | 65.6 mm           |
| D <sub>1</sub>    | 77.25 mm          |
| d <sub>n</sub>    | 69.6 mm           |
| C <sub>1</sub>    | 5.65 mm           |
| C <sub>2</sub>    | 3.4 mm            |
| C <sub>3</sub>    | 3.4 mm            |
| C <sub>2</sub>    | 3.4 mm            |
| C <sub>1</sub>    | 5.65 mm           |
| d <sub>n</sub>    | 69.6 mm           |
| D <sub>1</sub>    | 77.25 mm          |
| d <sub>2</sub>    | 65.6 mm           |
| d <sub>1</sub>    | 67.73 mm          |
| d <sub>1</sub>    | 67.73 mm          |
| C <sub>3</sub>    | 3.4 mm            |
| Bearing number    | 7011 ACE/HCP4AL1  |
| Preload class A   | 128 N/micron      |
| Preload class B   | 193 N/micron      |
| G <sub>ref</sub>  | 5 cm <sup>3</sup> |
| Preload class C   | 251 N/micron      |
| Number of balls z | 24                |

|                               |          |
|-------------------------------|----------|
| Bore Diameter (mm)            | 90       |
| $r_b$ max.                    | 0.6 mm   |
| $r_a$ max.                    | 1 mm     |
| $D_b$ max.                    | 85.8 mm  |
| $D_a$ max.                    | 84 mm    |
| $d_a$ min.                    | 61 mm    |
| $d_b$ min.                    | 61 mm    |
| Outer Diameter (mm)           | 55       |
| $r_b$ - max.                  | 0.6 mm   |
| $r_{3,4}$ min.                | 0.6 mm   |
| $d_b$ - min.                  | 61 mm    |
| $D_a$ - max.                  | 84 mm    |
| $D_b$ - max.                  | 85.8 mm  |
| $r_{1,2}$ min.                | 1.1 mm   |
| $d_a$ - min.                  | 61 mm    |
| $r_a$ - max.                  | 1 mm     |
| Ball - $D_w$                  | 7.938 mm |
| Calculation factor f          | 1.07     |
| Calculation factor e          | 0.68     |
| $r_{3,4}$ - min.              | 0.6 mm   |
| Calculation factor - f        | 1.07     |
| $r_{1,2}$ - min.              | 1.1 mm   |
| Calculation factor - e        | 0.68     |
| Ball diameter $D_w$           | 7.938 mm |
| Basic dynamic load rating C   | 15.9 kN  |
| Preload class C $G_C$         | 860 N    |
| Basic dynamic load rating - C | 15.9 kN  |
| Preload class B $G_B$         | 430 N    |
| Preload class A $G_A$         | 140 N    |
| Preload class C - $G_C$       | 860 N    |
|                               |          |

|                                         |                |
|-----------------------------------------|----------------|
| Preload class A - $G_A$                 | 140 N          |
| Preload class B - $G_B$                 | 430 N          |
| Calculation factor $f_1$                | 0.99           |
| Fatigue load limit $P_u$                | 0.49 kN        |
| Calculation factor $f_{HC}$             | 1.01           |
| Calculation factor $f_{2C}$             | 1.06           |
| Calculation factor $f_{2B}$             | 1.03           |
| Calculation factor $f_{2A}$             | 1              |
| Calculation factor - $Y_2$              | 1.41           |
| Calculation factor - $Y_0$              | 0.76           |
| Calculation factor - $X_2$              | 0.67           |
| Limiting speed for oil lubrication      | 35000 mm/min   |
| Calculation factor - $Y_1$              | 0.92           |
| Fatigue load limit - $P_u$              | 0.49 kN        |
| Calculation factor - $f_1$              | 0.99           |
| Calculation factor - $f_{2A}$           | 1              |
| Calculation factor - $f_{HC}$           | 1.01           |
| Calculation factor - $f_{2C}$           | 1.06           |
| Calculation factor - $f_{2B}$           | 1.03           |
| Limiting speed for grease lubrication   | 23000 r/min    |
| Basic static load rating $C_0$          | 11.6 kN        |
| Static axial stiffness, preload class A | 128 N/ $\mu$ m |
| Static axial stiffness, preload class C | 251 N/ $\mu$ m |
| Static axial stiffness, preload class B | 193 N/ $\mu$ m |
| Attainable speed for grease lubrication | 23000 r/min    |
|                                         |                |

|                                                       |                   |
|-------------------------------------------------------|-------------------|
| Basic static load rating - $C_0$                      | 11.6 kN           |
| Attainable speed for oil-air lubrication              | 35000 r/min       |
| Reference grease quantity $G_{ref}$                   | 5 cm <sup>3</sup> |
| 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              |