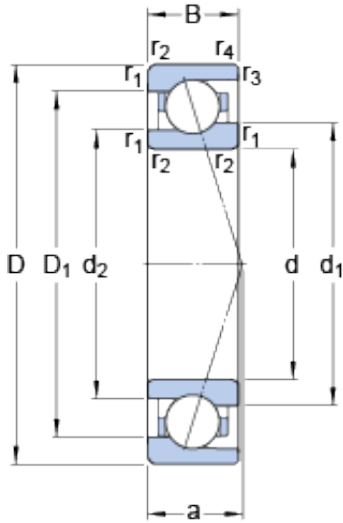




# Off-the-shelf SKF shaft Co., Ltd



## 12 mm x 24 mm x 6 mm SKF 71901 CE/HCP4A TAC series for ball screw support

Bearing No. 71901 CE/HCP4A

71901 CE/HCP4A Bearing 2D drawings and 3D CAD models

|   |              |
|---|--------------|
| Size                                      | 24x12x6 mm   |
| Bore Diameter                             | 12 mm        |
| Outer Diameter                            | 24 mm        |
| Width                                     | 6 mm         |
| d   | 12 mm        |
| D   | 24 mm        |
| B   | 6 mm         |
| d <sub>1</sub>                            | 16 mm        |
| d <sub>2</sub>                            | 15.26 mm     |
| D <sub>1</sub>                            | 19.95 mm     |
| r <sub>1,2</sub> - min.                   | 0.3 mm       |
| r <sub>3,4</sub> - min.                   | 0.15 mm      |
| a   | 5.7 mm       |
| d <sub>a</sub> - min.                     | 14 mm        |
| d <sub>b</sub> - min.                     | 14 mm        |
| D <sub>a</sub> - max.                     | 22 mm        |
| D <sub>b</sub> - max.                     | 23.2 mm      |
| r <sub>a</sub> - max.                     | 0.3 mm       |
| r <sub>b</sub> - max.                     | 0.15 mm      |
| d <sub>n</sub>                            | 16.8 mm      |
| Basic dynamic load rating - C             | 2.1 kN       |
| Basic static load rating - C <sub>0</sub> | 0.915 kN     |
| Fatigue load limit - P <sub>u</sub>       | 0.039 kN     |
| Limiting speed for grease                 | 109000 r/min |



## Off-the-shelf SKF shaft Co., Ltd

|                                    |                     |
|------------------------------------|---------------------|
| Lubrication                        |                     |
| Limiting speed for oil lubrication | 165000 mm/min       |
| Ball - $D_w$                       | 3.175 mm            |
| Ball - $z$                         | 12                  |
| $G_{ref}$                          | 0.1 cm <sup>3</sup> |
| Calculation factor - $f_0$         | 7.8                 |
| Preload class A - $G_A$            | 11 N                |
| Preload class B - $G_B$            | 34 N                |
| Preload class C - $G_C$            | 68 N                |
| Calculation factor - $f$           | 1.04                |
| Calculation factor - $f$           | 1                   |
| Calculation factor - $f_{2A}$      | 1                   |
| Calculation factor - $f_{2B}$      | 1.05                |
| Calculation factor - $f_{2C}$      | 1.09                |
| Calculation factor - $f_{HC}$      | 1.01                |
| Preload class A                    | 12 N/micron         |
| Preload class B                    | 19 N/micron         |
| Preload class C                    | 26 N/micron         |
| $d_1$                              | 16 mm               |
| $d_2$                              | 15.26 mm            |
| $D_1$                              | 19.95 mm            |
| $r_{1,2}$ min.                     | 0.3 mm              |
| $r_{3,4}$ min.                     | 0.15 mm             |
| $d_a$ min.                         | 14 mm               |
| $d_b$ min.                         | 14 mm               |
| $D_a$ max.                         | 22 mm               |
| $D_b$ max.                         | 23.2 mm             |
| $r_a$ max.                         | 0.3 mm              |
| $r_b$ max.                         | 0.15 mm             |
| $d_n$                              | 16.8 mm             |



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|  |                     |
|--|---------------------|
| Basic dynamic load rating C              | 2.12 kN             |
| Basic static load rating $C_0$           | 0.915 kN            |
| Fatigue load limit $P_u$                 | 0.039 kN            |
| Attainable speed for grease lubrication  | 109000 r/min        |
| Attainable speed for oil-air lubrication | 165000 r/min        |
| Ball diameter $D_w$                      | 3.175 mm            |
| Number of balls z                        | 12                  |
| Reference grease quantity $G_{ref}$      | 0.1 cm <sup>3</sup> |
| Preload class A $G_A$                    | 11 N                |
| Static axial stiffness, preload class A  | 12 N/ $\mu$ m       |
| Preload class B $G_B$                    | 34 N                |
| Static axial stiffness, preload class B  | 19 N/ $\mu$ m       |
| Preload class C $G_C$                    | 68 N                |
| Static axial stiffness, preload class C  | 26 N/ $\mu$ m       |
| Calculation factor f                     | 1.04                |
| Calculation factor $f_1$                 | 1                   |
| Calculation factor $f_{2A}$              | 1                   |
| Calculation factor $f_{2B}$              | 1.05                |
| Calculation factor $f_{2C}$              | 1.09                |
| Calculation factor $f_{HC}$              | 1.01                |
| Calculation factor $f_0$                 | 7.8                 |
| Mass bearing                             | 0.009 kg            |