



# IFB Roller Industry Co.,Ltd



7022 ACD/P4A Bearing 2D drawings and 3D CAD models

## SKF 7022 ACD/P4A angular contact ball bearings

Bearing No. 7022 ACD/P4A

|   |               |
|---|---------------|
| Size                                      | 170x110x28 mm |
| Bore Diameter                             | 170 mm        |
| Outer Diameter                            | 110 mm        |
| Width                                     | 28 mm         |
| d   | 110 mm        |
| D   | 170 mm        |
| B   | 28 mm         |
| d <sub>1</sub>                            | 128.5 mm      |
| d <sub>2</sub>                            | 128.5 mm      |
| D <sub>1</sub>                            | 151.5 mm      |
| r <sub>1,2</sub> - min.                   | 2 mm          |
| r <sub>3,4</sub> - min.                   | 1 mm          |
| a   | 46.8 mm       |
| d <sub>a</sub> - min.                     | 119 mm        |
| d <sub>b</sub> - min.                     | 119 mm        |
| D <sub>a</sub> - max.                     | 161 mm        |
| D <sub>b</sub> - max.                     | 165 mm        |
| r <sub>a</sub> - max.                     | 2 mm          |
| r <sub>b</sub> - max.                     | 1 mm          |
| d <sub>n</sub>                            | 132.6 mm      |
| Basic dynamic load rating - C             | 104 kN        |
| Basic static load rating - C <sub>0</sub> | 104 kN        |
| Fatigue load limit - P <sub>u</sub>       | 3.8 kN        |
| Limiting speed for grease                 | 7000 r/min    |



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|                                    |                      |
|------------------------------------|----------------------|
| Lubrication                        |                      |
| Limiting speed for oil lubrication | 11000 mm/min         |
| Ball - $D_w$                       | 19.05 mm             |
| Ball - $z$                         | 20                   |
| $G_{ref}$                          | 25.5 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 - $G_A$            | 650 N                |
| Preload class B - $G_B$            | 1300 N               |
| Preload class C - $G_C$            | 2600 N               |
| Preload class D - $G_D$            | 5200 N               |
| Calculation factor - $f$           | 1.14                 |
| Calculation factor - $f_1$         | 0.99                 |
| Calculation factor - $f_{2A}$      | 1                    |
| Calculation factor - $f_{2B}$      | 1.02                 |
| Calculation factor - $f_{2C}$      | 1.05                 |
| Calculation factor - $f_{2D}$      | 1.08                 |
| Calculation factor - $f_{HC}$      | 1                    |
| Preload class A                    | 290 N/micron         |
| Preload class B                    | 379 N/micron         |
| Preload class C                    | 503 N/micron         |
| Preload class D                    | 681 N/micron         |
|                                    |                      |



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|                        |  |
|------------------------|--|
| Category               | Precision Ball Bearings  |
| Inventory              | 0.0  |
| Manufacturer Name      | SKF  |
| Minimum Buy Quantity   | N/A  |
| Weight / Kilogram      | 1.93   |
| EAN                    | 7316571062549  |
| Product Group          | B04270   |
| Enclosure              | Open   |
| Precision Class        | ABEC 7   ISO P4  |
| Material - Ball        | Steel  |
| Number of Bearings     | 1 (Single)   |
| Contact Angle          | 25 Degree  |
| Preload                | None   |
| Raceway Style          | 1 Rib Outer Ring   |
| Cage Material          | Phenolic   |
| Rolling Element        | Ball Bearing   |
| Flush Ground           | No   |
| Inch - Metric          | Metric   |
| Other Features         | Single Row   Angular Contact   High Capacity Basic Design  |
| Long Description       | 110MM Bore; 170MM Outside Diameter; 28MM Width; Open Enclosure; ABEC 7   ISO P4 Precision; Steel Ball Material; 1 (Single) Bearing; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Ra |
| Category               | Precision Ball Bearings  |
| UNSPSC                 | 31171531   |
| Harmonized Tariff Code | 8482.10.50.28  |
| Noun                   | Bearing  |
| Keyword String         | Ball Angular Contact   |
|                        |  |



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|  |   |
|--|---|
| Manufacturer URL                         | <a href="http://www.skf.com">http://www.skf.com</a> |
| Outside Diameter                         | 6.693 Inch   170 Millimeter                         |
| Bore                                     | 4.331 Inch   110 Millimeter                         |
| Width                                    | 1.102 Inch   28 Millimeter                          |
| $d_1$                                    | 128.5 mm  |
| $d_2$                                    | 128.5 mm  |
| $D_1$                                    | 151.5 mm  |
| $r_{1,2}$ min.                           | 2 mm  |
| $r_{3,4}$ min.                           | 1 mm  |
| $d_a$ min.                               | 119 mm  |
| $d_b$ min.                               | 119 mm  |
| $D_a$ max.                               | 161 mm  |
| $D_b$ max.                               | 165 mm  |
| $r_a$ max.                               | 2 mm  |
| $r_b$ max.                               | 1 mm  |
| $d_n$                                    | 132.6 mm  |
| Basic dynamic load rating C              | 104 kN  |
| Basic static load rating $C_0$           | 104 kN  |
| Fatigue load limit $P_u$                 | 3.75 kN   |
| Attainable speed for grease lubrication  | 7000 r/min  |
| Attainable speed for oil-air lubrication | 11000 r/min   |
| Ball diameter $D_w$                      | 19.05 mm  |
| Number of balls z                        | 20  |
| Reference grease quantity $G_{ref}$      | 25.5 cm <sup>3</sup>                                |
| Preload class A $G_A$                    | 650 N   |
| Static axial stiffness, preload class A  | 290 N/ $\mu$ m                                      |
| Preload class B $G_B$                    | 1300 N  |
| Static axial stiffness, preload class B  | 379 N/ $\mu$ m                                      |
| Preload class C $G_C$                    | 2600 N  |



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|   |                |
|---|----------------|
| Static axial stiffness, preload class C               | 503 N/ $\mu$ m |
| Preload class D $G_D$                                 | 5200 N         |
| Static axial stiffness, preload class D               | 681 N/ $\mu$ m |
| Calculation factor f                                  | 1.14           |
| Calculation factor $f_1$                              | 0.99           |
| Calculation factor $f_{2A}$                           | 1              |
| Calculation factor $f_{2B}$                           | 1.02           |
| Calculation factor $f_{2C}$                           | 1.05           |
| Calculation factor $f_{2D}$                           | 1.08           |
| Calculation factor $f_{HC}$                           | 1              |
| 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  | 1.97 kg        |