



## Bearing equipment manufacturing Co., Ltd



71936 ACD/P4A Bearing 2D drawings and 3D CAD models

180 mm x 250 mm x 33 mm SKF 71936  
ACD/P4A angular contact ball bearings

Bearing No. 71936 ACD/P4A

|   |               |
|---|---------------|
| Size                                      | 250x180x33 mm |
| Bore Diameter                             | 250 mm        |
| Outer Diameter                            | 180 mm        |
| Width                                     | 33 mm         |
| d   | 180 mm        |
| D   | 250 mm        |
| B   | 33 mm         |
| d <sub>1</sub>                            | 201.6 mm      |
| d <sub>2</sub>                            | 201.6 mm      |
| D <sub>1</sub>                            | 228.4 mm      |
| r <sub>1,2</sub> - min.                   | 2 mm          |
| r <sub>3,4</sub> - min.                   | 1 mm          |
| a   | 66.8 mm       |
| d <sub>a</sub> - min.                     | 189 mm        |
| d <sub>b</sub> - min.                     | 189 mm        |
| D <sub>a</sub> - max.                     | 241 mm        |
| D <sub>b</sub> - max.                     | 245 mm        |
| r <sub>a</sub> - max.                     | 2 mm          |
| r <sub>b</sub> - max.                     | 1 mm          |
| d <sub>n</sub>                            | 207.4 mm      |
| Basic dynamic load rating - C             | 159 kN        |
| Basic static load rating - C <sub>0</sub> | 200 kN        |
| Fatigue load limit - P <sub>u</sub>       | 5.8 kN        |
| Limiting speed for grease                 | 4800 r/min    |



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|                                    |                    |
|------------------------------------|--------------------|
| Lubrication                        |                    |
| Limiting speed for oil lubrication | 7000 mm/min        |
| Ball - $D_w$                       | 22.225 mm          |
| Ball - $z$                         | 27                 |
| $G_{ref}$                          | 54 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 - $G_A$            | 1000 N             |
| Preload class B - $G_B$            | 2000 N             |
| Preload class C - $G_C$            | 4000 N             |
| Preload class D - $G_D$            | 8000 N             |
| Calculation factor - $f$           | 1.25               |
| 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 - $f_{2D}$      | 1.14               |
| Calculation factor - $f_{HC}$      | 1                  |
| Preload class A                    | 442 N/micron       |
| Preload class B                    | 581 N/micron       |
| Preload class C                    | 774 N/micron       |
| Preload class D                    | 1055 N/micron      |
|                                    |                    |



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|                        |  |
|------------------------|--|
| Category               | Precision Ball Bearings  |
| Inventory              | 0.0  |
| Manufacturer Name      | SKF  |
| Minimum Buy Quantity   | N/A  |
| Weight / Kilogram      | 0  |
| 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       | 180MM Bore; 250MM Outside Diameter; 33MM 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   |
| Manufacturer URL       | <a href="http://www.skf.com">http://www.skf.com</a>  |
|                        |  |



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|  |                             |
|--|-----------------------------|
| Bore                                     | 7.087 Inch   180 Millimeter |
| Width                                    | 1.299 Inch   33 Millimeter  |
| Outside Diameter                         | 9.843 Inch   250 Millimeter |
| $d_1$                                    | 201.6 mm                    |
| $d_2$                                    | 201.6 mm                    |
| $D_1$                                    | 228.4 mm                    |
| $r_{1,2}$ min.                           | 2 mm                        |
| $r_{3,4}$ min.                           | 1 mm                        |
| $d_a$ min.                               | 189 mm                      |
| $d_b$ min.                               | 189 mm                      |
| $D_a$ max.                               | 241 mm                      |
| $D_b$ max.                               | 245 mm                      |
| $r_a$ max.                               | 2 mm                        |
| $r_b$ max.                               | 1 mm                        |
| $d_n$                                    | 207.4 mm                    |
| Basic dynamic load rating C              | 159 kN                      |
| Basic static load rating $C_0$           | 200 kN                      |
| Fatigue load limit $P_u$                 | 5.85 kN                     |
| Attainable speed for grease lubrication  | 4800 r/min                  |
| Attainable speed for oil-air lubrication | 7000 r/min                  |
| Ball diameter $D_w$                      | 22.225 mm                   |
| Number of balls z                        | 27                          |
| Reference grease quantity $G_{ref}$      | 54 cm <sup>3</sup>          |
| Preload class A $G_A$                    | 1000 N                      |
| Static axial stiffness, preload class A  | 442 N/ $\mu$ m              |
| Preload class B $G_B$                    | 2000 N                      |
| Static axial stiffness, preload class B  | 581 N/ $\mu$ m              |
| Preload class C $G_C$                    | 4000 N                      |
| Static axial stiffness, preload          | 774 N/ $\mu$ m              |



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|   |                 |
|---|-----------------|
| class C   |                 |
| Preload class D $G_D$                                 | 8000 N          |
| Static axial stiffness, preload class D               | 1055 N/ $\mu$ m |
| Calculation factor $f$                                | 1.25            |
| 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 $f_{2D}$                           | 1.14            |
| 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  | 4.2 kg          |