



UGE BEARING INDUSTRIAL CO., LTD.



20 mm x 42 mm x 12 mm SKF 7004 ACD/P4A
Special design 60 ° contact angle Precision Bearings

Bearing No. 7004 ACD/P4A

7004 ACD/P4A Bearing 2D drawings and 3D CAD models

| | |
|---|-------------|
| Size | 42x20x12 mm |
| Bore Diameter | 42 mm |
| Outer Diameter | 20 mm |
| Width | 12 mm |
| d | 20 mm |
| D | 42 mm |
| B | 12 mm |
| d ₁ | 27.1 mm |
| d ₂ | 27.1 mm |
| D ₁ | 34.8 mm |
| r _{1,2} - min. | 0.6 mm |
| r _{3,4} - min. | 0.3 mm |
| a | 13.3 mm |
| d _a - min. | 23.2 mm |
| d _b - min. | 23.2 mm |
| D _a - max. | 38.8 mm |
| D _b - max. | 40 mm |
| r _a - max. | 0.6 mm |
| r _b - max. | 0.3 mm |
| d _n | 28.4 mm |
| Basic dynamic load rating - C | 8.3 kN |
| Basic static load rating - C ₀ | 4.2 kN |
| Fatigue load limit - P _u | 0.173 kN |



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| Limiting speed for grease lubrication | 38000 r/min |
| Limiting speed for oil lubrication | 60000 mm/min |
| Ball - D_w | 6.35 mm |
| Ball - z | 12 |
| G_{ref} | 0.9 cm ³ |
| 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 | 50 N |
| Preload class B - G_B | 100 N |
| Preload class C - G_C | 200 N |
| Preload class D - G_D | 400 N |
| Calculation factor - f | 1.03 |
| 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 | 54 N/micron |
| Preload class B | 69 N/micron |
| Preload class C | 90 N/micron |
| Preload class D | 120 N/micron |



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| Category | Precision Ball Bearings |
| Inventory | 0.0 |
| Manufacturer Name | SKF |
| Minimum Buy Quantity | N/A |
| Weight / Kilogram | 0.072 |
| EAN | 7316571092164 |
| 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 Precision |
| Long Description | 20MM Bore; 42MM Outside Diameter; 12MM Width; Open Enclosure; ABEC 7 ISO P4 Precision; Steel Ball Material; 1 (Single) Bearings; 25 Degree Contact Angle; Phenolic Cage Material; 1 Rib Outer Ring Rac |
| Category | Precision Ball Bearings |
| UNSPSC | 31171531 |
| Harmonized Tariff Code | 8482.10.50.28 |
| Noun | Bearing |
| Keyword String | Angular Contact Ball |
| Manufacturer URL | http://www.skf.com |



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| Manufacturer Item Number | 7004 ACD/P4A |
| Weight / LBS | 0.157 |
| Width | 0.472 Inch 12 Millimeter |
| Bore | 0.787 Inch 20 Millimeter |
| Outside Diameter | 1.654 Inch 42 Millimeter |
| bore diameter: | 20 mm |
| radial dynamic load capacity: | 8.32 kN |
| outside diameter: | 42 mm |
| radial static load capacity: | 4.15 kN |
| overall width: | 12 mm |
| outer ring width: | 12 mm |
| contact angle: | 25 ° |
| maximum rpm: | 50000 RPM |
| row type & fill slot: | Single-Row Non-Fill Slot |
| finish/coating: | Uncoated |
| internal clearance: | C0 |
| precision rating: | ABEC 7 (ISO Class 4) |
| closure type: | Open |
| fillet radius: | 0.6 mm |
| bearing material: | Steel |
| series: | 70 |
| d_1 | 27.1 mm |
| d_2 | 27.1 mm |
| D_1 | 34.8 mm |
| $r_{1,2}$ min. | 0.6 mm |
| $r_{3,4}$ min. | 0.3 mm |
| d_a min. | 23.2 mm |
| d_b min. | 23.2 mm |
| D_a max. | 38.8 mm |
| D_b max. | 40 mm |
| r_a max. | 0.6 mm |
| r_b max. | 0.3 mm |



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| d_n | 28.4 mm |
| Basic dynamic load rating C | 8.32 kN |
| Basic static load rating C_0 | 4.15 kN |
| Fatigue load limit P_u | 0.173 kN |
| Attainable speed for grease lubrication | 38000 r/min |
| Attainable speed for oil-air lubrication | 60000 r/min |
| Ball diameter D_w | 6.35 mm |
| Number of balls z | 12 |
| Reference grease quantity G_{ref} | 0.9 cm ³ |
| Preload class A G_A | 50 N |
| Static axial stiffness, preload class A | 54 N/ μ m |
| Preload class B G_B | 100 N |
| Static axial stiffness, preload class B | 69 N/ μ m |
| Preload class C G_C | 200 N |
| Static axial stiffness, preload class C | 90 N/ μ m |
| Preload class D G_D | 400 N |
| Static axial stiffness, preload class D | 120 N/ μ m |
| Calculation factor f | 1.03 |
| 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 |
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| 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 | 0.068 kg |