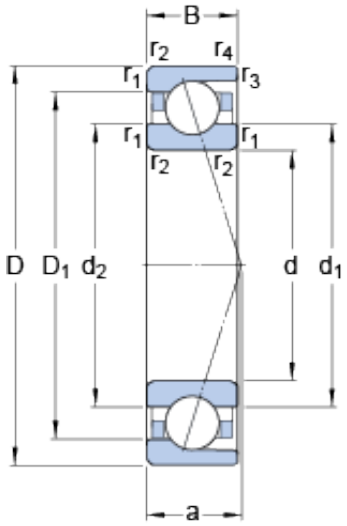
# FAG BEARING LIMITED




## 40 mm x 80 mm x 18 mm SKF 7208 ACD/HCP4A angular contact ball bearings

**Bearing No. 7208 ACD/HCP4A**

| | |
|---|---|
| Size | 80x40x18 mm |
| Bore Diameter | 80 mm |
| Outer Diameter | 40 mm |
| Width | 18 mm |
| d | 40 mm |
| D | 80 mm |
| B | 18 mm |
| $d_1$ | 53.3 mm |
| $d_2$ | 53.3 mm |
| $D_1$ | 66.7 mm |
| $r_{1,2}$ - min. | 1.1 mm |
| $r_{3,4}$ - min. | 0.6 mm |
| a | 23.1 mm |
| $d_a$ - min. | 47 mm |
| $d_b$ - min. | 47 mm |
| $D_a$ - max. | 73 mm |
| $D_b$ - max. | 75.8 mm |
| $r_a$ - max. | 1 mm |
| $r_b$ - max. | 0.6 mm |
| $d_n$ | 56.2 mm |
| Basic dynamic load rating - C | 31.9 kN |
| Basic static load rating - $C_0$ | 22.8 kN |
| Fatigue load limit - $P_u$ | 0.98 kN |
| Limiting speed for grease | 19000 r/min |

**7208 ACD/HCP4A Bearing 2D drawings and 3D CAD models**

| | |
|---|---|
| lubrication | |
| Limiting speed for oil lubrication | 32000 mm/min |
| Ball - $D_w$ | 11.112 mm |
| Ball - z | 14 |
| $G_{ref}$ | 4.725 cm3 |
| 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 - $G_A$ | 200 N |
| Preload class B - $G_B$ | 400 N |
| Preload class C - $G_C$ | 800 N |
| Preload class D - $G_D$ | 1600 N |
| Calculation factor - f | 1.05 |
| Calculation factor - $f_1$ | 0.99 |
| Calculation factor - $f_{2A}$ | 1 |
| Calculation factor - $f_{2B}$ | 1.01 |
| Calculation factor - $f_{2C}$ | 1.03 |
| Calculation factor - $f_{2D}$ | 1.06 |
| Calculation factor - $f_{HC}$ | 1.01 |
| Preload class A | 141 N/micron |
| Preload class B | 183 N/micron |
| Preload class C | 242 N/micron |
| Preload class D | 326 N/micron |
| | |

| | |
|---|---|
| Category | Precision Ball Bearings |
| Inventory | 0.0 |
| Manufacturer Name | SKF |
| Minimum Buy Quantity | N/A |
| Weight / Kilogram | 0.359 |
| Product Group | B00308 |
| Enclosure | Open |
| Precision Class | ABEC 7 \| ISO P4 |
| Material - Ball | Ceramic |
| 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 | 40MM Bore; 80MM Outside Diameter; 18MM Width; Open Enclosure; ABEC 7 \| ISO P4 Precision; Ceramic 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 | http://www.skf.com |
| | |

| | |
|---|---|
| Bore | 1.575 Inch \| 40 Millimeter |
| Outside Diameter | 3.15 Inch \| 80 Millimeter |
| Width | 0.709 Inch \| 18 Millimeter |
| $d_1$ | 53.3 mm |
| $d_2$ | 53.3 mm |
| $D_1$ | 66.7 mm |
| $r_{1,2}$ min. | 1.1 mm |
| $r_{3,4}$ min. | 0.6 mm |
| $d_a$ min. | 47 mm |
| $d_b$ min. | 47 mm |
| $D_a$ max. | 73 mm |
| $D_b$ max. | 75.8 mm |
| $r_a$ max. | 1 mm |
| $r_b$ max. | 0.6 mm |
| $d_n$ | 56.2 mm |
| Basic dynamic load rating C | 31.9 kN |
| Basic static load rating $C_0$ | 22.8 kN |
| Fatigue load limit $P_u$ | 0.98 kN |
| Attainable speed for grease lubrication | 19000 r/min |
| Attainable speed for oil-air lubrication | 32000 r/min |
| Ball diameter $D_w$ | 11.112 mm |
| Number of balls z | 14 |
| Reference grease quantity $G_{ref}$ | 4.725 $cm^3$ |
| Preload class A $G_A$ | 200 N |
| Static axial stiffness, preload class A | 141 N/µm |
| Preload class B $G_B$ | 400 N |
| Static axial stiffness, preload class B | 183 N/µm |
| Preload class C $G_C$ | 800 N |
| Static axial stiffness, preload | 242 N/µm |

| | |
|---|---|
| class C | |
| Preload class D $G_D$ | 1600 N |
| Static axial stiffness, preload class D | 326 N/µm |
| Calculation factor f | 1.05 |
| Calculation factor $f_1$ | 0.99 |
| Calculation factor $f_{2A}$ | 1 |
| Calculation factor $f_{2B}$ | 1.01 |
| Calculation factor $f_{2C}$ | 1.03 |
| Calculation factor $f_{2D}$ | 1.06 |
| Calculation factor $f_{HC}$ | 1.01 |
| 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 | 0.33 kg |