



## SKF DRIVESHAFT CORP

9 mm x 24 mm x 7 mm skf 709 ACD/P4A Super-precision Angular contact ball bearings

Bearing No. 709 ACD/P4A

|                      |   |
|----------------------|---|
| Category             | Miniature Precision Ball Bearings   |
| Inventory            | 0.0   |
| Manufacturer Name    | SKF   |
| Minimum Buy Quantity | N/A   |
| Weight / Kilogram    | 0.021   |
| EAN                  | 7316570505092   |
| Product Group        | B04270  |
| Enclosure            | Open  |
| Precision Class      | ABEC 7   ISO P4   |
| Flanges              | No  |
| Material - Ball      | Steel   |
| Race Material        | Steel   |
| Raceway Style        | 1 Rib Outer Ring  |
| Number of Bearings   | 1 (Single)  |
| Contact Angle        | 25 Degree   |
| Preload              | None  |
| Cage Material        | Phenolic  |
| Rolling Element      | Ball Bearing  |
| Flush Ground         | No  |
| Inch - Metric        | Metric  |
| Other Features       | Single Row   Angular Contact   High Precision   |
| Long Description     | 9MM Bore; 24MM Outside Diameter; 7MM Inner Race Width; 7MM Outer Race Width; Open Enclosure; ABEC 7   ISO P4 Precision; No Flange; Steel Ball |



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|                             |  |
|-----------------------------|--|
|                             | Material; Steel Race<br>Material; 1 (Single) Bearing |
| Category                    | Miniature Precision Ball Bearings                    |
| UNSPSC                      | 31171531   |
| Harmonized Tariff Code      | 8482.10.50.28  |
| Noun                        | Bearing  |
| Keyword String              | Angular Contact Ball                                 |
| Manufacturer URL            | <a href="http://www.skf.com">http://www.skf.com</a>  |
| Manufacturer Item Number    | 709 ACD/P4A  |
| Weight / LBS                | 0.046  |
| Outer Race Width            | 0.276 Inch   7 Millimeter                            |
| Flange Outside Diameter     | 0 Inch   0 Millimeter                                |
| Bore                        | 0.354 Inch   9 Millimeter                            |
| Outside Diameter            | 0.945 Inch   24 Millimeter                           |
| Inner Race Width            | 0.276 Inch   7 Millimeter                            |
| d                           | 9 mm   |
| D                           | 24 mm  |
| B                           | 7 mm   |
| d <sub>1</sub>              | 14.1 mm  |
| d <sub>2</sub>              | 14.1 mm  |
| D <sub>1</sub>              | 18.9 mm  |
| r <sub>1,2</sub> min.       | 0.3 mm   |
| r <sub>3,4</sub> min.       | 0.2 mm   |
| a                           | 7.4 mm   |
| d <sub>a</sub> min.         | 11 mm  |
| d <sub>b</sub> min.         | 11 mm  |
| D <sub>a</sub> max.         | 22 mm  |
| D <sub>b</sub> max.         | 22.6 mm  |
| r <sub>a</sub> max.         | 0.3 mm   |
| r <sub>b</sub> max.         | 0.2 mm   |
| d <sub>n</sub>              | 15.1 mm  |
| Basic dynamic load rating C | 3.45 kN  |



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| Basic static load rating $C_0$            | 1.53 kN              |
| Fatigue load limit $P_u$                  | 0.064 kN             |
| Attainable speed for grease lubrication   | 75000 r/min          |
| Attainable speed for oil-air lubrication  | 110000 r/min         |
| Ball diameter $D_w$                       | 3.969 mm             |
| Number of balls $z$                       | 10                   |
| Reference grease quantity $G_{ref}$       | 0.18 cm <sup>3</sup> |
| Preload class A $G_A$                     | 20 N                 |
| Static axial stiffness, preload class A   | 30 N/ $\mu$ m        |
| Preload class B $G_B$                     | 40 N                 |
| Static axial stiffness, preload class B   | 39 N/ $\mu$ m        |
| Preload class C $G_C$                     | 80 N                 |
| Static axial stiffness, preload class C   | 51 N/ $\mu$ m        |
| Preload class D $G_D$                     | 160 N                |
| Static axial stiffness, preload class D   | 68 N/ $\mu$ m        |
| Calculation factor $f$                    | 1.02                 |
| 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,               | 0.41                 |



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|   |          |
|---|----------|
| tandem) $X_2$   |          |
| 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  | 0.015 kg |