



**Bearing No. 7209 BEP**

|                |                              |
|----------------|------------------------------|
| a              | 37 mm                        |
| d              | 45 mm                        |
| D              | 85 mm                        |
| B              | 19 mm                        |
| Noun           | Bearing                      |
| Bore           | 1.772 Inch   45 Millimeter   |
| Width          | 0.748 Inch   19 Millimeter   |
| UNSPSC         | 31171531                     |
| series:        | 72                           |
| Category       | Angular Contact Ball Bearing |
| Enclosure      | Open                         |
| Snap Ring      | No                           |
| Size (mm)      | 85x45x19                     |
| Inventory      | 0.0                          |
| Width (mm)     | 19                           |
| Weight / LBS   | 0.917                        |
| maximum rpm:   | 9000 RPM                     |
| Flush Ground   | No                           |
| Mass bearing   | 0.42 kg                      |
| Contact Angle  | 40 Degree                    |
| Cage Material  | Polymer                      |
| closure type:  | Open                         |
| Product Group  | B00308                       |
| Inch - Metric  | Metric                       |
| d <sub>1</sub> | 60.85 mm                     |
| d <sub>2</sub> | 52.68 mm                     |
| D <sub>1</sub> | 70.15 mm                     |
|                |                              |

|                     |   |
|---------------------|---|
| Bearing number      | 7209 BEP  |
| Keyword String      | Angular Contact   |
| fillet radius:      | 1 mm  |
| contact angle:      | 40 °  |
| overall width:      | 19 mm   |
| cage material:      | Nylon   |
| bore diameter:      | 45 mm   |
| Limiting speed      | 9000 r/min  |
| finish/coating:     | Uncoated  |
| Reference speed     | 9000 r/min  |
| Rolling Element     | Ball Bearing  |
| Precision Class     | ABEC 3   ISO P6   |
| Outside Diameter    | 3.346 Inch   85<br>Millimeter   |
| Manufacturer URL    | <a href="http://www.skf.com">http://www.skf.com</a>   |
| Long Description    | 45MM Bore; 85MM<br>Outside Diameter;<br>19MM Width; Open; No<br>Flush Ground; Ball<br>Bearing; Single Row of<br>Balls; ABEC 3   ISO P6;<br>No Filling Slot; No Snap<br>Ring |
| outer ring width:   | 19 mm   |
| outside diameter:   | 85 mm   |
| precision rating:   | Not Rated   |
| Manufacturer Name   | SKF   |
| Weight / Kilogram   | 0.42  |
| Number of Bearings  | 1 (Single)  |
| Internal Clearance  | C0-Medium   |
| d <sub>a</sub> min. | 52 mm   |
| Bore Diameter (mm)  | 85  |
| D <sub>a</sub> max. | 78 mm   |
| D <sub>b</sub> max. | 80.8 mm   |
| r <sub>a</sub> max. | 1 mm  |

|                               |                          |
|-------------------------------|--------------------------|
| $r_b$ max.                    | 0.6 mm                   |
| Outer Diameter (mm)           | 45                       |
| internal clearance:           | C0                       |
| $r_{1,2}$ min.                | 1.1 mm                   |
| Calculation factor A          | 0.012                    |
| Calculation factor e          | 1.14                     |
| Calculation factor X          | 0.57                     |
| $r_{3,4}$ min.                | 0.6 mm                   |
| Minimum Buy Quantity          | N/A                      |
| $D_a$ - max.                  | 78 mm                    |
| $r_b$ - max.                  | 0.6 mm                   |
| $r_a$ - max.                  | 1 mm                     |
| $D_b$ - max.                  | 80.8 mm                  |
| $d_a$ - min.                  | 52 mm                    |
| $d_2$ ?                       | 52.68 mm                 |
| $D_1$ ?                       | 70.15 mm                 |
| $d_1$ ?                       | 60.85 mm                 |
| row type & fill slot:         | Single-Row Non-Fill Slot |
| Calculation factor - X        | 0.35                     |
| Calculation factor - e        | 1.14                     |
| Harmonized Tariff Code        | 8482.10.50.28            |
| $r_{1,2}$ - min.              | 1.1 mm                   |
| $r_{3,4}$ - min.              | 0.6 mm                   |
| Number of Rows of Balls       | Single Row               |
| Manufacturer Item Number      | 7209 BEP                 |
| Basic dynamic load rating C   | 35.8 kN                  |
| radial static load capacity:  | 26 kN                    |
| Basic dynamic load rating - C | 35.8 kN                  |
| radial dynamic load capacity: | 35.8 kN                  |

|                                  |         |
|----------------------------------|---------|
| Maximum Capacity / Filling Slot  | No      |
| Calculation factor $Y_1$         | 0.55    |
| Calculation factor $Y_2$         | 0.93    |
| Calculation factor $k_r$         | 0.095   |
| Fatigue load limit $P_u$         | 1.12 kN |
| Calculation factor $Y_0$         | 0.52    |
| Fatigue load limit - $P_u$       | 1.1 kN  |
| Calculation factor - $Y_2$       | 0.57    |
| Calculation factor - $Y_1$       |         |
| Calculation factor - $k_a$       | 1.4     |
| Calculation factor - $Y_0$       | 0.26    |
| Calculation factor - $k_r$       | 0.095   |
| Basic static load rating $C_0$   | 26 kN   |
| Basic static load rating - $C_0$ | 26 kN   |