

**FAG****3209-BD-XL**

Angular contact ball bearing

Angular contact ball bearing 32..-BD-XL,  
double row, X-life, steel sheet metal cage**X-life**

## Technical information



## Your current product variant

|                                  |         |   |
|----------------------------------|---------|---|
| Design variant                   | B       | Bearing without filling slot            |
| Changed internal design          | D       | D                                       |
| Sealing                          | Without | Not sealed                              |
| Cage                             | JH      | Steel sheet metal                       |
| Tolerance class                  | P6      | Class 6 (ISO 492:2023)                  |
| Dimensional / heat stabilization | SN      | Rings dimensional stabilized up to 120° |
| Lubricant                        | Without | Bearing not greased                     |
| Axial internal clearance         | CN      | Group N (CN)                            |

## Main Dimensions &amp; Performance Data

|                 |             |                                   |
|-----------------|-------------|-----------------------------------|
| d               | 45 mm       | Bore diameter                     |
| D               | 85 mm       | Outside diameter                  |
| B               | 30,2 mm     | Width                             |
| C <sub>r</sub>  | 50.000 N    | Basic dynamic load rating, radial |
| C <sub>0r</sub> | 39.000 N    | Basic static load rating, radial  |
| C <sub>ur</sub> | 2.700 N     | Fatigue load limit, radial        |
| n <sub>G</sub>  | 8.300 1/min | Limiting speed                    |
| n <sub>gr</sub> | 8.400 1/min | Reference speed                   |
| ≈m              | 0,625 kg    | Weight                            |



### Mounting dimensions

|              |       |                                      |
|--------------|-------|--------------------------------------|
| $d_{a \min}$ | 52 mm | Minimum diameter shaft shoulder      |
| $D_{a \max}$ | 78 mm | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 1 mm  | Maximum fillet radius                |

### Dimensions

|            |          |   |
|------------|----------|---|
| $r_{\min}$ | 1,1 mm   | Minimum chamfer dimension                         |
| $D_1$      | 75,1 mm  | Shoulder diameter outer ring                      |
| $D_2$      | 78,09 mm | Caliber diameter outer ring                       |
| $d_1$      | 59,9 mm  | Shoulder diameter inner ring                      |
| $d_2$      | 57,73 mm | Caliber diameter inner ring                       |
| $a$        | 50,3 mm  | Distance between the apexes of the pressure cones |
| $\alpha$   | 30 °     | Contact angle                                     |

### Temperature range

|            |        |                            |
|------------|--------|----------------------------|
| $T_{\min}$ | -30 °C | Operating temperature min. |
| $T_{\max}$ | 120 °C | Operating temperature max. |

### Characteristics

|   |                              |
|---|------------------------------|
|  | Radial load                  |
|  | Axial load in one direction  |
|  | Axial load in two directions |
|  | Grease Lubrication           |
|  | Oil Lubrication              |
|  | Not sealed                   |