

**FAG****2209-K-TVH**

Self-aligning ball bearing

Self-aligning ball bearing 22..-K-TVH, tapered bore taper 1:12, plastic cage

## Technical information



## Your current product variant

|                           |              |  |
|---------------------------|--------------|--|
| Bore type                 | K            | Tapered, taper 1:12                                      |
| Sealing                   | Without      | Not sealed   |
| Cage                      | TVH          | Solid cage made of glass-fiber reinforced polyamide PA66 |
| Tolerance class           | PN           | Normal (ISO 492:2023)                                    |
| Radial internal clearance | CN (Group N) | Normal internal clearance                                |
| Lubricant                 | Without      | Bearing not greased                                      |

## Main Dimensions &amp; Performance Data

|             |             |                                   |
|-------------|-------------|-----------------------------------|
| d           | 45 mm       | Bore diameter                     |
| D           | 85 mm       | Outside diameter                  |
| B           | 23 mm       | Width                             |
| $C_r$       | 28.500 N    | Basic dynamic load rating, radial |
| $C_{0r}$    | 9.000 N     | Basic static load rating, radial  |
| $C_{ur}$    | 570 N       | Fatigue load limit, radial        |
| $n_G$       | 8.600 1/min | Limiting speed                    |
| $n_{gR}$    | 7.800 1/min | Reference speed                   |
| $\approx m$ | 0,533 kg    | Weight                            |



### Mounting dimensions

|              |       |                                       |
|--------------|-------|---------------------------------------|
| $d_{a \min}$ | 52 mm | Minimum diameter shaft shoulder       |
| $d_{a \max}$ | 56 mm | Maximum diameter shaft shoulder       |
| $D_{a \max}$ | 78 mm | Maximum diameter of housing shoulder  |
| $d_{b \min}$ | 50 mm | Minimum cavity diameter of the sleeve |
| $B_{a \min}$ | 7 mm  | Minimum cavity width of the sleeve    |
| $r_{a \max}$ | 1 mm  | Maximum fillet radius                 |

### Dimensions

|            |          |                              |
|------------|----------|------------------------------|
| $r_{\min}$ | 1,1 mm   | Minimum chamfer dimension    |
| $D_1$      | 75,41 mm | Shoulder diameter outer ring |
| $d_1$      | 58,95 mm | Shoulder diameter inner ring |

### Temperature range

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

### Calculation factors

|       |      |  |
|-------|------|--|
| $e$   | 0,26 | Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y |
| $Y_1$ | 2,43 | Dynamic axial load factor  |
| $Y_2$ | 3,76 | Dynamic axial load factor  |
| $Y_0$ | 2,55 | Static axial load factor   |

### Additional information

H309

Adapter sleeve



### Characteristics

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-  Radial load
-  Axial load in one direction
-  Axial load in two directions
-  Grease Lubrication
-  Oil Lubrication
-  Not sealed
-  Static angular error and misalignment
-  Dynamic angular error and misalignment