



FAG

**30310-XL-S1**

Tapered roller bearing

Tapered roller bearings 303, main dimensions  
acc. to DIN 720, separable

X-life

## Technical information

## Your current product variant

|                 |          |  |
|-----------------|----------|--|
| Tolerance class | PN       | Normal (ISO 492:2023)                        |
| Heat treatment  | S1       | Rings dimensional stabilized up to 200°      |
| Cage            | Standard | Sheet steel cage, window cage, roller-guided |
| Internal design | Standard |  |
| Quality level   | XL       | X-life                                       |
| Number of rows  | 1        | Single-row design                            |

## Main Dimensions &amp; Performance Data

|          |             |                                   |
|----------|-------------|-----------------------------------|
| d        | 50 mm       | Bore diameter                     |
| D        | 110 mm      | Outside diameter                  |
| B        | 27 mm       | Width, inner ring                 |
| C        | 23 mm       | Width, outer ring                 |
| T        | 29,25 mm    | Width, total                      |
| $C_r$    | 155.000 N   | Basic dynamic load rating, radial |
| $C_{0r}$ | 150.000 N   | Basic static load rating, radial  |
| $C_{ur}$ | 23.400 N    | Fatigue load limit, radial        |
| $n_G$    | 8.300 1/min | Limiting speed                    |
| $n_{gr}$ | 4.700 1/min | Thermal speed rating              |
| $m$      | 1,26 kg     | Weight                            |





### Mounting dimensions

|              |        |                                      |
|--------------|--------|--------------------------------------|
| $d_{a \max}$ | 65 mm  | Maximum diameter of shaft shoulder   |
| $d_{b \min}$ | 60 mm  | Minimum diameter of shaft shoulder   |
| $D_{a \min}$ | 95 mm  | Minimum diameter of housing shoulder |
| $D_{a \max}$ | 100 mm | Maximum diameter of housing shoulder |
| $D_{b \min}$ | 102 mm | Minimum diameter of housing shoulder |
| $C_{a \min}$ | 4 mm   | Minimum axial space                  |
| $C_{b \min}$ | 6 mm   | Minimum axial space                  |
| $r_{a \max}$ | 2,5 mm | Maximum fillet radius of shaft       |
| $r_{b \max}$ | 2 mm   | Maximum fillet radius of housing     |

### Dimensions

|                 |         |   |
|-----------------|---------|---|
| $r_{1, 2 \min}$ | 2,5 mm  | Minimum chamfer dimension of inner ring back face |
| $r_{3, 4 \min}$ | 2 mm    | Minimum chamfer dimension of outer ring back face |
| $a$             | 23 mm   | Distance between the apexes of the pressure cones |
| $d_1$           | 78,4 mm | Guidance rib diameter of inner ring               |

### Temperature range

|            |        |                            |
|------------|--------|----------------------------|
| $T_{\min}$ | -30 °C | Operating temperature min. |
| $T_{\max}$ | 200 °C | Operating temperature max. |

### Calculation factors

|       |      |  |
|-------|------|--|
| $e$   | 0,35 | Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y |
| $Y$   | 1,74 | Dynamic axial load factor  |
| $Y_0$ | 0,96 | Static axial load factor   |

### Additional information

T2FB050

Comparative designation to ISO 10317 and ISO 355



### Characteristics

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