

**FAG****2311-2RS-TVH**

Self-aligning ball bearing

Self-aligning ball bearing 23..-2RS-TVH,  
seals, plastic cage

## Technical information



## Your current product variant

|                           |              |                                                          |
|---------------------------|--------------|----------------------------------------------------------|
| Bore type                 | Z            | Cylindrical                                              |
| Sealing                   | 2RS          | Contact seal on both sides                               |
| 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                 | GA13         | Ball bearing and insert bearing grease                   |

## Main Dimensions &amp; Performance Data

|                 |             |                                   |
|-----------------|-------------|-----------------------------------|
| d               | 55 mm       | Bore diameter                     |
| D               | 120 mm      | Outside diameter                  |
| B               | 43 mm       | Width                             |
| C <sub>r</sub>  | 52,000 N    | Basic dynamic load rating, radial |
| C <sub>0r</sub> | 17,900 N    | Basic static load rating, radial  |
| C <sub>ur</sub> | 1,130 N     | Fatigue load limit, radial        |
| n <sub>G</sub>  | 3,750 1/min | Limiting speed                    |
| ≈m              | 1.886 kg    | Weight                            |

## Mounting dimensions

|                    |        |                                      |
|--------------------|--------|--------------------------------------|
| d <sub>a min</sub> | 66 mm  | Minimum diameter shaft shoulder      |
| D <sub>a max</sub> | 109 mm | Maximum diameter of housing shoulder |
| r <sub>a max</sub> | 2 mm   | Maximum fillet radius                |



## Dimensions

|            |            |                              |
|------------|------------|------------------------------|
| $r_{\min}$ | 2 mm       | Minimum chamfer dimension    |
| $D_1$      | 101.272 mm | Shoulder diameter outer ring |
| $D_2$      | 106.35 mm  | Caliber diameter outer ring  |
| $d_1$      | 77.8 mm    | Shoulder diameter inner ring |
| $d_2$      | 70.45 mm   | Caliber diameter inner ring  |

## Temperature range

|            |        |                            |
|------------|--------|----------------------------|
| $T_{\min}$ | -20 °C | Operating temperature min. |
| $T_{\max}$ | 100 °C | Operating temperature max. |

## Calculation factors

|       |      |                                                                                      |
|-------|------|--------------------------------------------------------------------------------------|
| $e$   | 0.24 | Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y |
| $Y_1$ | 2.65 | Dynamic axial load factor                                                            |
| $Y_2$ | 4.1  | Dynamic axial load factor                                                            |
| $Y_0$ | 2.78 | Static axial load factor                                                             |

## Characteristics



Radial load



Axial load in one direction



Axial load in two directions



Lifetime lubrication, freedom from maintenance



Grease Lubrication



Sealed on both sides



Static angular error and misalignment



Dynamic angular error and misalignment