

**FAG****6309-2Z-C4**

Deep groove ball bearing

Deep groove ball bearing 63...-2Z, single row, shields, steel sheet metal cage

## Technical information



## Your current product variant

|                                  |              |                                         |
|----------------------------------|--------------|-----------------------------------------|
| Sealing                          | 2Z           | Non-contact shield on both sides        |
| Cage                             | JN           | Steel sheet metal                       |
| Tolerance class                  | PN           | Normal (ISO 492:2023)                   |
| Dimensional / heat stabilization | S0           | Rings dimensional stabilized up to 150° |
| Lubricant                        | GA13         | Ball bearing and insert bearing grease  |
| Radial internal clearance        | C4 (Group 4) | Internal clearance larger than C3       |
| Bore type                        | Z            | Cylindrical                             |

## Main Dimensions &amp; Performance Data

|             |             |                                   |
|-------------|-------------|-----------------------------------|
| d           | 45 mm       | Bore diameter                     |
| D           | 100 mm      | Outside diameter                  |
| B           | 25 mm       | Width                             |
| $C_r$       | 56.000 N    | Basic dynamic load rating, radial |
| $C_{0r}$    | 31.500 N    | Basic static load rating, radial  |
| $C_{ur}$    | 2.240 N     | Fatigue load limit, radial        |
| $n_G$       | 8.100 1/min | Limiting speed                    |
| $n_{gr}$    | 8.200 1/min | Reference speed                   |
| $\approx m$ | 0,844 kg    | Weight                            |



### Mounting dimensions

|              |        |                                      |
|--------------|--------|--------------------------------------|
| $d_{a \min}$ | 54 mm  | Minimum diameter shaft shoulder      |
| $D_{a \max}$ | 91 mm  | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 1,5 mm | Maximum fillet radius                |

### Dimensions

|            |          |                              |
|------------|----------|------------------------------|
| $r_{\min}$ | 1,5 mm   | Minimum chamfer dimension    |
| $D_1$      | 83,3 mm  | Shoulder diameter outer ring |
| $D_2$      | 85,64 mm | Caliber diameter outer ring  |
| $d_1$      | 62 mm    | Shoulder diameter inner ring |

### Temperature range

|            |        |                            |
|------------|--------|----------------------------|
| $T_{\min}$ | -20 °C | Operating temperature min. |
| $T_{\max}$ | 120 °C | Operating temperature max. |

### Calculation factors

|       |      |                    |
|-------|------|--------------------|
| $f_0$ | 12,9 | Calculation 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                           |