

**FAG****2309-M**

Self-aligning ball bearing

Self-aligning ball bearing 23..-M, solid brass cage

## Technical information



## Your current product variant

Bore type	Z	Cylindrical
Sealing	Without	Not sealed
Cage	M	Solid brass cage, ball guided
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	100 mm	Outside diameter
B	36 mm	Width
$C_r$	55.000 N	Basic dynamic load rating, radial
$C_{0r}$	16.600 N	Basic static load rating, radial
$C_{ur}$	1.060 N	Fatigue load limit, radial
$n_G$	10.500 1/min	Limiting speed
$n_{gr}$	8.000 1/min	Reference speed
$\approx m$	1,38 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
$D_1$	83,64 mm	Shoulder diameter outer ring
$d_1$	60,05 mm	Shoulder diameter inner ring
$C_1$	0,1 mm	Overhang rolling element

## Temperature range

$T_{\min}$	-30 °C	Operating temperature min.
$T_{\max}$	150 °C	Operating temperature max.

## Calculation factors

$e$	0,43	Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y
$Y_1$	1,47	Dynamic axial load factor
$Y_2$	2,28	Dynamic axial load factor
$Y_0$	1,54	Static axial load factor

## Characteristics

	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