



FAG

**31309-XL**

Tapered roller bearing

Tapered roller bearings 313, main dimensions acc. to DIN 720, separable

X-life

## Technical information

## Your current product variant

Tolerance class	PN	Normal (ISO 492:2014)
Heat treatment	Standard	
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	45 mm	Bore diameter
D	100 mm	Outside diameter
B	25 mm	Width, inner ring
C	18 mm	Width, outer ring
T	27,25 mm	Width, total
$C_r$	119.000 N	Basic dynamic load rating, radial
$C_{0r}$	108.000 N	Basic static load rating, radial
$C_{ur}$	16.300 N	Fatigue load limit, radial
$n_G$	8.600 1/min	Limiting speed
$n_{gr}$	4.650 1/min	Thermal speed rating
$m$	0,96 kg	Weight





### Mounting dimensions

$d_{a \max}$	56 mm	Maximum diameter of shaft shoulder
$d_{b \min}$	54 mm	Minimum diameter of shaft shoulder
$D_{a \min}$	79 mm	Minimum diameter of housing shoulder
$D_{a \max}$	91 mm	Maximum diameter of housing shoulder
$D_{b \min}$	95 mm	Minimum diameter of housing shoulder
$C_{a \min}$	4 mm	Minimum axial space
$C_{b \min}$	9 mm	Minimum axial space
$r_{a \max}$	2 mm	Maximum fillet radius of shaft
$r_{b \max}$	1,5 mm	Maximum fillet radius of housing

### Dimensions

$r_{1, 2 \min}$	2 mm	Minimum chamfer dimension of inner ring back face
$r_{3, 4 \min}$	1,5 mm	Minimum chamfer dimension of outer ring back face
$a$	32 mm	Distance between the apexes of the pressure cones
$d_1$	74,7 mm	Guidance rib diameter of inner ring

### Temperature range

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

### Calculation factors

$e$	0,83	Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y
$Y$	0,73	Dynamic axial load factor
$Y_0$	0,4	Static axial load factor

### Additional information

T7FB045

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