



FAG

**22309-E1-XL**

## Spherical Roller Bearing

Spherical roller bearings 223...-E1, main dimensions to DIN 635-2

X-life

## Technical information



## Your current product variant

Design	E1	Without central rip
Bore type	Z	Cylindrical
Cage	JPA	Sheet metal cage
Radial internal clearance	CN (Group N)	Normal internal clearance
Relubrication facility	Standard	



## Main Dimensions &amp; Performance Data

d	45 mm	Bore diameter
D	100 mm	Outside diameter
B	36 mm	Width
$C_r$	187.000 N	Basic dynamic load rating, radial
$C_{0r}$	183.000 N	Basic static load rating, radial
$C_{ur}$	16.500 N	Fatigue load limit, radial
$n_G$	6.800 1/min	Limiting speed
$n_{gr}$	5.000 1/min	Reference speed
$m$	1,368 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 recess radius

### Dimensions

$r_{\min}$	1,5 mm	Minimum chamfer dimension
$D_1$	84,7 mm	Bore diameter outer ring
$d_2$	58,9 mm	Raceway diameter of the inner ring
$d_s$	3,2 mm	Diameter lubrication hole
$n_s$	6,5 mm	Width of lubricating groove

### Temperature range

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

### Calculation factors

$e$	0,36	Limiting value of $F_a/F_r$ for the applicability of diff. Values of factors X and Y
$Y_1$	1,9	Dynamic axial load factor
$Y_2$	2,83	Dynamic axial load factor
$Y_0$	1,86	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