



FAG

22309-E1-XL-C4

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	C4 (Group 4)	Internal clearance larger than C3
Relubrication	Standard	



Main Dimensions & 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
$\approx m$	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