



FAG

22309-E1-XL-K-C3

Spherical Roller Bearing

Spherical roller bearings 223...-E1-K, main dimensions to DIN 635-2, with tapered bore, taper 1:12

X-life

Technical information



Your current product variant

Design	E1	Without central rip
Bore type	K	Tapered, taper 1:12
Cage	JPA	Sheet metal cage
Radial internal clearance	C3 (Group 3)	Internal clearance larger than CN
Relubrication facility	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
$\approx m$	1,34 kg	Weight



Mounting dimensions

$d_{a \min}$	54 mm	Minimum diameter shaft shoulder
$d_{a \max}$	58 mm	Maximum diameter of shaft shoulder
$D_{a \max}$	91 mm	Maximum diameter of housing shoulder
$r_{a \max}$	1,5 mm	Maximum recess radius
$d_{b \min}$	50 mm	Minimum cavity diameter of the sleeve
$B_{a \min}$	5 mm	Minimum cavity width of the sleeve

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

Additional information

H2309	Adapter sleeve
AH2309	Withdrawal sleeve



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