



FAG

22311-E1-XL-K

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	CN (Group N)	Normal internal clearance
Relubrication facility	Standard	

Main Dimensions & Performance Data

d	55 mm	Bore diameter
D	120 mm	Outside diameter
B	43 mm	Width
C_r	265.000 N	Basic dynamic load rating, radial
C_{0r}	260.000 N	Basic static load rating, radial
C_{ur}	24.600 N	Fatigue load limit, radial
n_G	5.800 1/min	Limiting speed
n_{gr}	4.500 1/min	Reference speed
$\approx m$	2,301 kg	Weight



Mounting dimensions

$d_{a \min}$	66 mm	Minimum diameter shaft shoulder
$d_{a \max}$	67 mm	Maximum diameter of shaft shoulder
$D_{a \max}$	109 mm	Maximum diameter of housing shoulder
$r_{a \max}$	2 mm	Maximum recess radius
$d_{b \min}$	61 mm	Minimum cavity diameter of the sleeve
$B_{a \min}$	6 mm	Minimum cavity width of the sleeve

Dimensions

r_{\min}	2 mm	Minimum chamfer dimension
D_1	101,4 mm	Bore diameter outer ring
d_2	68,9 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	1,89	Dynamic axial load factor
Y_2	2,81	Dynamic axial load factor
Y_0	1,84	Static axial load factor

Additional information

H2311	Adapter sleeve
AHX2311	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