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A technical drawing of a half-section of a ball bearing. The drawing shows the outer ring, inner ring, balls, and cage. Dimension lines indicate the following parameters:

- D : Outer diameter of the bearing.
- d : Inner diameter of the bearing.
- B : Width of the bearing.

FAG

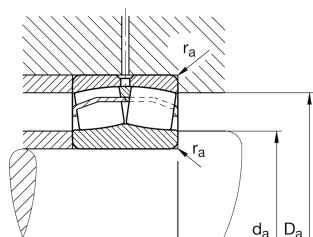
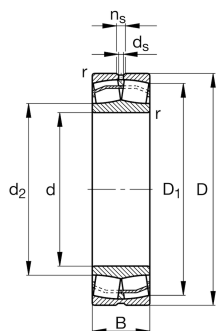
X-life

22312-E1-XL

Spherical Roller Bearing

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

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 & Performance Data

d	60 mm	Bore diameter
D	130 mm	Outside diameter
B	46 mm	Width
C _r	310.000 N	Basic dynamic load rating, radial
C _{0r}	310.000 N	Basic static load rating, radial
C _{ur}	29.000 N	Fatigue load limit, radial
n _G	5.400 1/min	Limiting speed
n _{gr}	4.200 1/min	Reference speed
m	2,94 kg	Weight

The data sheet only contains an overview of the technical data of the selected product. Please refer to the additional documentation for this product. For further information, please use the following link on our website: [Contact form](#)



Mounting dimensions

$d_{a \min}$	72 mm	Minimum diameter shaft shoulder
$D_{a \max}$	118 mm	Maximum diameter of housing shoulder
$r_{a \max}$	2,1 mm	Maximum recess radius

Dimensions

$r_{\min}$	2,1 mm	Minimum chamfer dimension
D_1	110,1 mm	Bore diameter outer ring
d_2	74,8 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	0,35	Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y
Y_1	1,91	Dynamic axial load factor
Y_2	2,85	Dynamic axial load factor
Y_0	1,87	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