



FAG

23136-E1A-XL-M

Spherical Roller Bearing

Spherical roller bearings 231...-E1A, main dimensions to DIN 635-2

X-life

Technical information



Your current product variant

Design	E1A	Without central rip
Bore type	Z	Cylindrical
Cage	M	Brass Cage
Radial internal clearance	CN (Group N)	Normal internal clearance
Relubrication facility	Standard	

Main Dimensions & Performance Data

d	180 mm	Bore diameter
D	300 mm	Outside diameter
B	96 mm	Width
C_r	1.420.000 N	Basic dynamic load rating, radial
C_{0r}	1.950.000 N	Basic static load rating, radial
C_{ur}	199.000 N	Fatigue load limit, radial
n_G	2.230 1/min	Limiting speed
n_{gr}	1.350 1/min	Reference speed
$\approx m$	26,919 kg	Weight



Mounting dimensions

$d_{a \min}$	194 mm	Minimum diameter shaft shoulder
$D_{a \max}$	286 mm	Maximum diameter of housing shoulder
$r_{a \max}$	2,5 mm	Maximum recess radius



Dimensions

r_{\min}	3 mm	Minimum chamfer dimension
D_1	264,8 mm	Bore diameter outer ring
d_s	8 mm	Diameter lubrication hole
n_s	15 mm	Width of lubricating groove

Temperature range

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

Calculation factors

e	0,29	Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y
Y_1	2,32	Dynamic axial load factor
Y_2	3,45	Dynamic axial load factor
Y_0	2,26	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