



FAG

231/500-BEA-XL-MB1

Spherical Roller Bearing

Spherical roller bearing 231..-BEA-XL-MB1,
symmetric 2 outer ribs with rib washer

X-life

Technical information



Your current product variant

Design	BEA	With lose center lip ring
Bore type	Z	Cylindrical
Cage	MB1	Solid brass cage
Radial internal clearance	CN (Group N)	Normal internal clearance
Relubrication facility	Standard	

Main Dimensions & Performance Data

d	500 mm	Bore diameter
D	830 mm	Outside diameter
B	264 mm	Width
C_r	8.300.000 N	Basic dynamic load rating, radial
C_{0r}	13.900.000 N	Basic static load rating, radial
C_{ur}	890.000 N	Fatigue load limit, radial
n_G	690 1/min	Limiting speed
n_{gr}	350 1/min	Reference speed
$\approx m$	576,5 kg	Weight

Mounting dimensions

$d_{a \min}$	532 mm	Minimum diameter shaft shoulder
$D_{a \max}$	798 mm	Maximum diameter of housing shoulder
$r_{a \max}$	6 mm	Maximum recess radius



Dimensions

r_{\min}	7,5 mm	Minimum chamfer dimension
D_1	723,1 mm	Bore diameter outer ring
d_s	12,5 mm	Diameter lubrication hole
n_s	23,5 mm	Width of lubricating groove

Temperature range

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

Calculation factors

e	0,31	Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y
Y_1	2,2	Dynamic axial load factor
Y_2	3,27	Dynamic axial load factor
Y_0	2,15	Static axial load factor

Characteristics

	Radial load
	Axial load in one direction
	Axial load in two directions
	Grease Lubrication
	Oil Lubrication
	Not sealed
	Large bearing
	Static angular error and misalignment
	Dynamic angular error and misalignment