



FAG

231/500-BEA-XL-K-MB1-C3 [↗](#)

Spherical Roller Bearing

Spherical roller bearing 231...-BEA-XL-K-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	K	Tapered, taper 1:12
Cage	MB1	Solid brass cage
Radial internal clearance	C3 (Group 3)	Internal clearance larger than CN
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
m	559 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
$d_{a \max}$	578 mm	Maximum diameter of shaft shoulder
$d_{b \min}$	527 mm	Minimum cavity diameter of the sleeve
$B_{a \min}$	18 mm	Minimum cavity width of the sleeve

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

Additional information

H31/500-HG	Adapter sleeve
AHX31/500-H	Withdrawal sleeve



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