



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 &amp; 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

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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