



FAG

23180-BEA-XL-K-MB1 [↗](#)

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	CN (Group N)	Normal internal clearance
Relubrication facility	Standard	

Main Dimensions & Performance Data

d	400 mm	Bore diameter
D	650 mm	Outside diameter
B	200 mm	Width
C_r	5.000.000 N	Basic dynamic load rating, radial
C_{0r}	8.100.000 N	Basic static load rating, radial
C_{ur}	590.000 N	Fatigue load limit, radial
n_G	950 1/min	Limiting speed
n_{gr}	495 1/min	Reference speed
m	248 kg	Weight



Mounting dimensions

$d_{a \min}$	426 mm	Minimum diameter shaft shoulder
$D_{a \max}$	624 mm	Maximum diameter of housing shoulder
$r_{a \max}$	5 mm	Maximum recess radius
$d_{a \max}$	457 mm	Maximum diameter of shaft shoulder
$d_{b \min}$	421 mm	Minimum cavity diameter of the sleeve
$B_{a \min}$	15 mm	Minimum cavity width of the sleeve

Dimensions

r_{\min}	6 mm	Minimum chamfer dimension
D_1	571,4 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	0,29	Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y
Y_1	2,3	Dynamic axial load factor
Y_2	3,42	Dynamic axial load factor
Y_0	2,25	Static axial load factor

Additional information

H3180-HG	Adapter sleeve
AH3180G-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