



FAG

23180-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	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