



FAG

23144-BE-XL-K

Spherical Roller Bearing

Spherical roller bearings 231...-E1-K, main dimensions to DIN 635-2, with tapered bore, taper 1:12

X-life

Technical information



Your current product variant

Design	BE	With lose center lip ring
Bore type	K	Tapered, taper 1:12
Cage	JPB	Sheet metal cage
Radial internal clearance	CN (Group N)	Normal internal clearance
Relubrication	Standard	

Main Dimensions & Performance Data

d	220 mm	Bore diameter
D	370 mm	Outside diameter
B	120 mm	Width
C_r	1.860.000 N	Basic dynamic load rating, radial
C_{0r}	2.700.000 N	Basic static load rating, radial
C_{ur}	223.000 N	Fatigue load limit, radial
n_G	1.860 1/min	Limiting speed
n_{gr}	1.080 1/min	Reference speed
$\approx m$	49,05 kg	Weight



Mounting dimensions

$d_{a \min}$	237 mm	Minimum diameter shaft shoulder
$d_{a \max}$	253 mm	Maximum diameter of shaft shoulder
$D_{a \max}$	353 mm	Maximum diameter of housing shoulder
$r_{a \max}$	3 mm	Maximum recess radius
$d_{b \min}$	233 mm	Minimum cavity diameter of the sleeve
$B_{a \min}$	10 mm	Minimum cavity width of the sleeve

Dimensions

r_{\min}	4 mm	Minimum chamfer dimension
D_1	323 mm	Bore diameter outer ring
d_2	254,8 mm	Raceway diameter of the inner ring
d_s	9,5 mm	Diameter lubrication hole
n_s	17,7 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	2,15	Dynamic axial load factor
Y_2	3,2	Dynamic axial load factor
Y_0	2,1	Static axial load factor

Additional information

H3144X	Adapter sleeve
AH3144	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