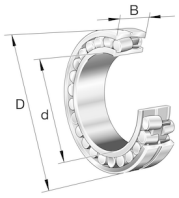


FAG

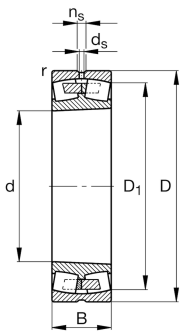
23120-E1A-XL-K-M-C4

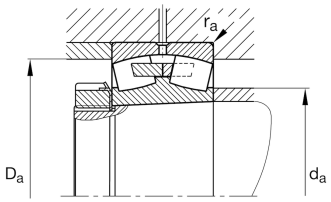
Spherical Roller Bearing

Spherical roller bearings 231..-E1A-K, main dimensions to DIN 635-2, with tapered bore, taper 1:12

X-life

Technical information





Your current product variant

Design	E1A	Without central rip
Bore type	K	Tapered, taper 1:12
Cage	M	Brass Cage
Radial internal clearance	C4 (Group 4)	Internal clearance larger than C3
Relubrication facility	Standard	
Special material	Standard	

Main Dimensions & Performance Data

d	100 mm	Bore diameter
D	165 mm	Outside diameter
B	52 mm	Width
C_r	450.000 N	Basic dynamic load rating, radial
C_{0r}	570.000 N	Basic static load rating, radial
C_{ur}	54.000 N	Fatigue load limit, radial
n_G	4.000 1/min	Limiting speed
$n_{\vartheta r}$	2.750 1/min	Reference speed
≈m	4,258 kg	Weight

Mounting dimensions

$d_{a\ min}$	111 mm	Minimum diameter shaft shoulder
$D_{a\ max}$	154 mm	Maximum diameter of housing shoulder
$r_{a\ max}$	2 mm	Maximum recess radius
$d_{a\ max}$	115 mm	Maximum diameter of shaft shoulder
$d_{b\ min}$	107 mm	Minimum cavity diameter of the sleeve
$B_{a\ min}$	7 mm	Minimum cavity width of the sleeve

Dimensions

r_{min}	2 mm	Minimum chamfer dimension
D_1	146,3 mm	Bore diameter outer ring
d_s	3,2 mm	Diameter lubrication hole
n_s	6,5 mm	Width of lubricating groove

Temperature range

T_{min}	-30 °C	Operating temperature min.
T_{max}	200 °C	Operating temperature max.

Calculation factors

e	0,28	Limiting value of Fa/Fr for the applicability of diff. Values of factors X and Y
Y_1	2,37	Dynamic axial load factor
Y_2	3,53	Dynamic axial load factor
Y_0	2,32	Static axial load factor

Additional information

	H3120	Adapter sleeve
	AHX3120	Withdrawal sleeve

Characteristics

Radial load

Axial load in one direction

Axial load in two directions


Grease Lubrication


Oil Lubrication


Not sealed


Static angular error and misalignment


Dynamic angular error and misalignment