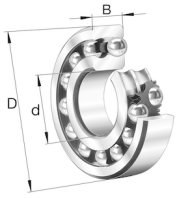


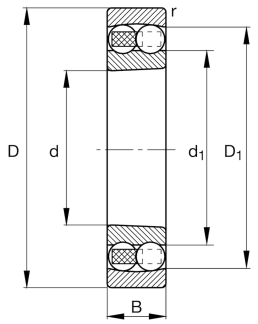
FAG

2220-K-M-C3

Self-aligning ball bearing

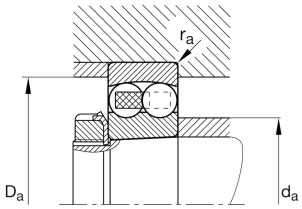
Self-aligning ball bearing 22..-K-M, tapered bore taper 1:12, solid brass cage

Technical information



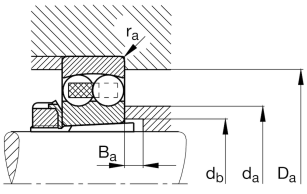
Your current product variant

Bore type	K	Tapered, taper 1:12
Sealing	Without	Not sealed
Cage	M	Solid brass cage, ball guided
Tolerance class	PN	Normal (ISO 492:2023)
Radial internal clearance	C3 (Group 3)	Internal clearance larger than CN
Lubricant	Without	Bearing not greased



Main Dimensions & Performance Data

d	100 mm	Bore diameter
D	180 mm	Outside diameter
B	46 mm	Width
C_r	98,000 N	Basic dynamic load rating, radial
C_{0r}	40,500 N	Basic static load rating, radial
C_{ur}	2,180 N	Fatigue load limit, radial
n_G	5,700 1/min	Limiting speed
$n_{\vartheta r}$	4,900 1/min	Reference speed
≈m	5.11 kg	Weight



Mounting dimensions

$d_{a\ min}$	112 mm	Minimum diameter shaft shoulder
$d_{a\ max}$	120 mm	Maximum diameter shaft shoulder
$D_{a\ max}$	168 mm	Maximum diameter of housing shoulder
$d_{b\ min}$	108 mm	Minimum cavity diameter of the sleeve
$B_{a\ min}$	8 mm	Minimum cavity width of the sleeve
$r_{a\ max}$	2.1 mm	Maximum fillet radius

Dimensions

r_{min}	2.1 mm	Minimum chamfer dimension
D_1	156.85 mm	Shoulder diameter outer ring
d_1	124.36 mm	Shoulder diameter inner ring

Temperature range

T_{min}	-30 °C	Operating temperature min.
T_{max}	150 °C	Operating temperature max.

Calculation factors

e	0.27	Limiting value of Fa/Fr for the applicability of diff. Values of factors X and Y
Y_1	2.33	Dynamic axial load factor
Y_2	3.61	Dynamic axial load factor
Y_0	2.45	Static axial load factor

Additional information

	H320	Adapter 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