

**FAG****2309-K-TVH-C3**

Self-aligning ball bearing

Self-aligning ball bearing 23...-K-TVH, tapered bore taper 1:12, plastic cage

Technical information



Your current product variant

Bore type	K	Tapered, taper 1:12
Sealing	Without	Not sealed
Cage	TVH	Solid cage made of glass-fiber reinforced polyamide PA66
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	45 mm	Bore diameter
D	100 mm	Outside diameter
B	36 mm	Width
C_r	55,000 N	Basic dynamic load rating, radial
C_{0r}	16,600 N	Basic static load rating, radial
C_{ur}	1,060 N	Fatigue load limit, radial
n_G	7,000 1/min	Limiting speed
n_{gR}	8,000 1/min	Reference speed
$\approx m$	1.176 kg	Weight



Mounting dimensions

$d_{a \min}$	54 mm	Minimum diameter shaft shoulder
$d_{a \max}$	57 mm	Maximum diameter shaft shoulder
$D_{a \max}$	91 mm	Maximum diameter of housing shoulder
$d_{b \min}$	50 mm	Minimum cavity diameter of the sleeve
$B_{a \min}$	5 mm	Minimum cavity width of the sleeve
$r_{a \max}$	1.5 mm	Maximum fillet radius

Dimensions

r_{\min}	1.5 mm	Minimum chamfer dimension
D_1	83.64 mm	Shoulder diameter outer ring
d_1	60.05 mm	Shoulder diameter inner ring
C_1	0.1 mm	Overhang rolling element

Temperature range

T_{\min}	-30 °C	Operating temperature min.
T_{\max}	120 °C	Operating temperature max.

Calculation factors

e	0.43	Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y
Y_1	1.47	Dynamic axial load factor
Y_2	2.28	Dynamic axial load factor
Y_0	1.54	Static axial load factor

Additional information

H2309

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