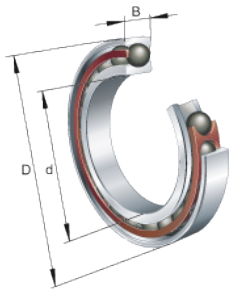


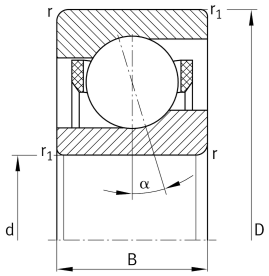
FAG

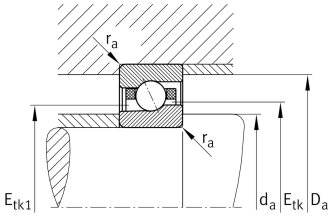
VCM71907-C-T-P4S-UL-XL

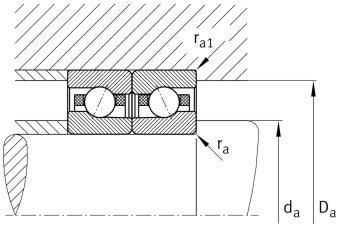
High speed spindle bearing

High speed spindle bearing VCM719..-C, adjusted, in pairs or sets, contact angle α = 17°, with ceramic balls, rings made from Vacrodur, restricted tolerances

Technical information







Your current product variant

Preload	L	Preload light
Contact angle	Contact angle 17°	Contact angle 17°
Sealing	Without	Not sealed
Cage	T	Laminated fabric cage
Tolerance class	P4S	Tolerance class P4S, FAG standard better than P4 to ISO 492:2023
Arrangement bearing set	U	Single bearing

Main Dimensions & Performance Data

d	35 mm	Bore diameter
D	55 mm	Outside diameter
B	10 mm	Width
C_r	22.700 N	Basic dynamic load rating, radial
C_{0r}	6.100 N	Basic static load rating, radial
C_{ur}	310 N	Fatigue load limit, radial
n_G Grease	48.000 1/min	Limiting speed for grease lubrication
n_G Oil	75.000 1/min	Limiting speed for oil lubrication
≈m	66,12 g	Weight

Mounting dimensions

d_a	40 mm	Diameter shaft shoulder
d_a	h12	Diameter shaft shoulder clearance
D_a	51,5 mm	Shoulder diameter outer ring
D_a	H12	Shoulder diameter outer ring clearance
$r_{a\ max}$	0,6 mm	Maximum recess radius
$r_{a1\ max}$	0,15 mm	Maximum recess radius
$E_{tk\ min}$	41,7 mm	Minimum diameter injection pitch
$E_{tk\ max}$	43,3 mm	Maximum diameter injection pitch
$E_{tk1\ min}$	39,6 mm	Minimum diameter injection pitch
$E_{tk1\ max}$	43,3 mm	Maximum diameter injection pitch
a	11,9 mm	Distance between the apexes of the pressure cones

Dimensions

r_{min}	0,6 mm	Minimum chamfer dimension
$r_{1\ min}$	0,3 mm	Minimum chamfer dimension
α	17 °	Contact angle

Temperature range

T_{min}	-30 °C	Operating temperature min.
T_{max}	100 °C	Operating temperature max.

Additional information

$F_{V\,L}$	30 N	Preload force light
$F_{V\,M}$	79 N	Preload force medium
$F_{V\,H}$	166 N	Preload force heavy
$K_{aE\,L}$	88 N	Lift-off force light
$K_{aE\,M}$	235 N	Lift-off force medium
$K_{aE\,H}$	506 N	Lift-off force heavy
$c_{a\,L}$	32 N/µm	Axial rigidity light
$c_{a\,M}$	46 N/µm	Axial rigidity medium
$c_{a\,H}$	62 N/µm	Axial rigidity heavy

Characteristics

Radial load

Axial load in one direction


Grease Lubrication


Oil Lubrication


Not sealed