

FAG

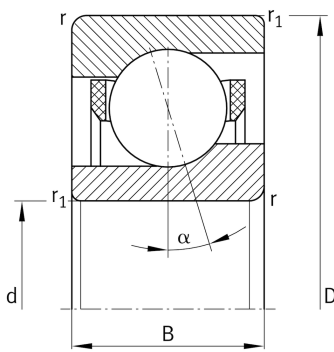
HCM71911-E-T-P4S-UL-XL

Angular contact ball bearing

High speed spindle bearing HCM719...-E, adjusted, in pairs or sets, contact angle $\alpha = 25^\circ$, with ceramic balls, restricted tolerances

X-life

Technical information



Main Dimensions & Performance Data

d	55 mm	Bore diameter
D	80 mm	Outside diameter
B	13 mm	Width
C_r	17.700 N	Basic dynamic load rating, radial
C_{0r}	9.100 N	Basic static load rating, radial
C_{ur}	730 N	Fatigue load limit, radial
$n_{G \text{ Grease}}$	28.000 1/min	Limiting speed for grease lubrication
$n_{G \text{ Oil}}$	43.000 1/min	Limiting speed for oil lubrication
$\approx m$	135,78 g	Weight

Mounting dimensions

d_a	60 mm	Diameter shaft shoulder
d_a	h12	Diameter shaft shoulder clearance
D_a	75,5 mm	Shoulder diameter outer ring
D_a	H12	Shoulder diameter outer ring clearance
$r_{a \text{ max}}$	0,6 mm	Maximum recess radius
$r_{a1 \text{ max}}$	0,3 mm	Maximum recess radius
$E_{tk \text{ min}}$	62,7 mm	Minimum diameter injection pitch
$E_{tk \text{ max}}$	65,1 mm	Maximum diameter injection pitch
$E_{tk1 \text{ min}}$	59,7 mm	Minimum diameter injection pitch
$E_{tk1 \text{ max}}$	65,1 mm	Maximum diameter injection pitch
a	22,2 mm	Distance between the apexes of the pressure cones

Dimensions

r_{min}	1 mm	Minimum chamfer dimension
$r_{1 \text{ min}}$	0,6 mm	Minimum chamfer dimension
α	25 °	Contact angle



Temperature range

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

Additional information

F_{VL}	106 N	Preload force light
F_{VM}	277 N	Preload force medium
F_{VH}	575 N	Preload force heavy
K_{aEL}	303 N	Lift-off force light
K_{aEM}	801 N	Lift-off force medium
K_{aEH}	1.687 N	Lift-off force heavy
c_{aL}	100 N/μm	Axial rigidity light
c_{aM}	140 N/μm	Axial rigidity medium
c_{aH}	183 N/μm	Axial rigidity heavy