

FAG

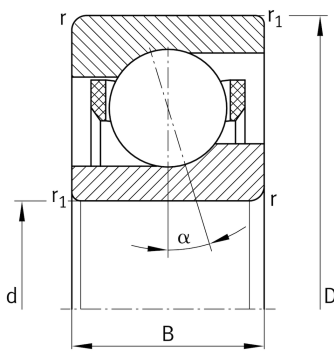
**HCM71912-E-T-P4S-UL-XL**

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 &amp; Performance Data

|                        |              |                                       |
|------------------------|--------------|---------------------------------------|
| d                      | 60 mm        | Bore diameter                         |
| D                      | 85 mm        | Outside diameter                      |
| B                      | 13 mm        | Width                                 |
| $C_r$                  | 18.600 N     | Basic dynamic load rating, radial     |
| $C_{0r}$               | 10.000 N     | Basic static load rating, radial      |
| $C_{ur}$               | 810 N        | Fatigue load limit, radial            |
| $n_{G \text{ Grease}}$ | 26.000 1/min | Limiting speed for grease lubrication |
| $n_{G \text{ Oil}}$    | 38.000 1/min | Limiting speed for oil lubrication    |
| $\approx m$            | 146,1 g      | Weight                                |

## Mounting dimensions

|                       |         |   |
|-----------------------|---------|---|
| $d_a$                 | 65 mm   | Diameter shaft shoulder                           |
| $d_a$                 | h12     | Diameter shaft shoulder clearance                 |
| $D_a$                 | 80,5 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                             |
| $E_{tk \text{ min}}$  | 67,7 mm | Minimum diameter injection pitch                  |
| $E_{tk \text{ max}}$  | 70 mm   | Maximum diameter injection pitch                  |
| $E_{tk1 \text{ min}}$ | 64,7 mm | Minimum diameter injection pitch                  |
| $E_{tk1 \text{ max}}$ | 70 mm   | Maximum diameter injection pitch                  |
| a                     | 23,4 mm | Distance between the apexes of the pressure cones |

## Dimensions

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



### Temperature range

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

### Additional information

|           |          |                       |
|-----------|----------|-----------------------|
| $F_{VL}$  | 117 N    | Preload force light   |
| $F_{VM}$  | 306 N    | Preload force medium  |
| $F_{VH}$  | 637 N    | Preload force heavy   |
| $K_{aEL}$ | 335 N    | Lift-off force light  |
| $K_{aEM}$ | 887 N    | Lift-off force medium |
| $K_{aEH}$ | 1.869 N  | Lift-off force heavy  |
| $C_{aL}$  | 110 N/μm | Axial rigidity light  |
| $C_{aM}$  | 154 N/μm | Axial rigidity medium |
| $C_{aH}$  | 201 N/μm | Axial rigidity heavy  |