

**FAG****HS71904-E-T-P4S-UL**

## High speed spindle bearing

High speed spindle bearing HS719.-E, adjusted, in pairs or sets, contact angle  $\alpha = 25^\circ$ , restricted tolerances

## Technical information



## Your current product variant

|                         |         |   |
|-------------------------|---------|---|
| Contact angle           | E       | Contact angle 25°   |
| Type of Sealing         | Without | Not sealed  |
| Cage                    | T       | Laminated fabric cage                                       |
| Tolerance class         | P4S     | Tolerance class P4S, FAG standard better than P4 to DIN 620 |
| Arrangement bearing set | U       | Single bearing  |
| Preload                 | L       | Preload light   |

## Main Dimensions &amp; Performance Data

|              |              |                                       |
|--------------|--------------|---------------------------------------|
| d            | 20 mm        | Bore diameter                         |
| D            | 37 mm        | Outside diameter                      |
| B            | 9 mm         | Width                                 |
| $C_r$        | 3.400 N      | Basic dynamic load rating, radial     |
| $C_{0r}$     | 1.630 N      | Basic static load rating, radial      |
| $C_{ur}$     | 173 N        | Fatigue load limit, radial            |
| $n_G$ Grease | 53.000 1/min | Limiting speed for grease lubrication |
| $n_G$ Oil    | 80.000 1/min | Limiting speed for oil lubrication    |
| $n_G$        | 80.000 1/min | Limiting speed                        |
| $\approx m$  | 39,9 g       | Weight                                |





### Mounting dimensions

|                |         |   |
|----------------|---------|---|
| $d_a$          | 24 mm   | Diameter shaft shoulder                           |
| $d_a$          | h12     | Diameter shaft shoulder clearance                 |
| $D_a$          | 33,5 mm | Shoulder diameter outer ring                      |
| $D_a$          | H12     | Shoulder diameter outer ring clearance            |
| $r_{a \max}$   | 0,3 mm  | Maximum recess radius                             |
| $r_{a1 \max}$  | 0,15 mm | Maximum recess radius                             |
| $E_{tk \min}$  | 26,6 mm | Minimum diameter injection pitch                  |
| $E_{tk \max}$  | 27,2 mm | Maximum diameter injection pitch                  |
| $E_{tk1 \min}$ | 25,4 mm | Minimum diameter injection pitch                  |
| $E_{tk1 \max}$ | 27,2 mm | Maximum diameter injection pitch                  |
| $a$            | 11,1 mm | Distance between the apexes of the pressure cones |

### Dimensions

|              |        |                           |
|--------------|--------|---------------------------|
| $r_{\min}$   | 0,3 mm | Minimum chamfer dimension |
| $r_{1 \min}$ | 0,3 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

|           |                     |                       |
|-----------|---------------------|-----------------------|
| $F_{VL}$  | 22 N                | Preload force light   |
| $F_{VM}$  | 65 N                | Preload force medium  |
| $F_{VH}$  | 129 N               | Preload force heavy   |
| $K_{aEL}$ | 62 N                | Lift-off force light  |
| $K_{aEM}$ | 191 N               | Lift-off force medium |
| $K_{aEH}$ | 392 N               | Lift-off force heavy  |
| $c_{aL}$  | 37 N/ $\mu\text{m}$ | Axial rigidity light  |
| $c_{aM}$  | 56 N/ $\mu\text{m}$ | Axial rigidity medium |
| $c_{aH}$  | 73 N/ $\mu\text{m}$ | Axial rigidity heavy  |

### Characteristics

-  Radial load
-  Axial load in one direction
-  Grease Lubrication
-  Oil Lubrication
-  Not sealed