



FAG

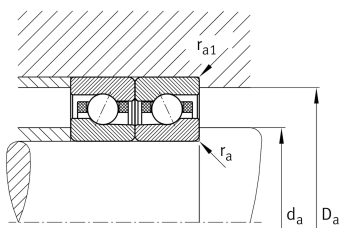
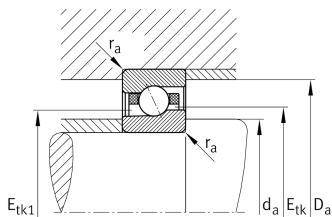
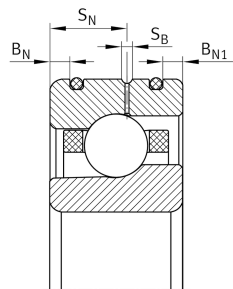
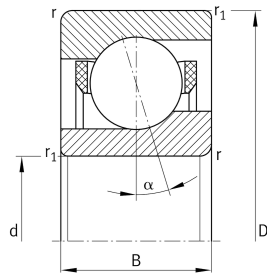
**VCM71912-EDLR-T-P4S-UL-XL**

## High speed spindle bearing

High speed spindle bearing VCM719...-EDLR, adjusted, in pairs or sets, contact angle  $\alpha = 25^\circ$ , with ceramic balls, rings made from Vacrodur, restricted tolerances, for direct oil feed via outer ring, with inserted O rings

X-life

## Technical information



## Your current product variant

|                         |         |  |
|-------------------------|---------|--|
| Preload class           | L       | Preload light  |
| Contact angle           | E       | Contact angle 25°  |
| Type of Seal            | Without | Not sealed   |
| Outer shape             | DLR     | Direct lubrication, annular slots with O rings                   |
| 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 &amp; Performance Data

|              |              |                                       |
|--------------|--------------|---------------------------------------|
| d            | 60 mm        | Bore diameter                         |
| D            | 85 mm        | Outside diameter                      |
| B            | 13 mm        | Width                                 |
| $C_r$        | 44.500 N     | Basic dynamic load rating, radial     |
| $C_{0r}$     | 14.000 N     | Basic static load rating, radial      |
| $C_{ur}$     | 720 N        | Fatigue load limit, radial            |
| $n_G$ Grease | 28.000 1/min | Limiting speed for grease lubrication |
| $n_G$ Oil    | 40.000 1/min | Limiting speed for oil lubrication    |
| $\approx m$  | 0,146 kg     | 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            |
| $r_{a \max}$  | 0,6 mm  | Maximum recess radius                             |
| $r_{a1 \max}$ | 0,3 mm  | Maximum recess radius                             |
| $B_N$         | 2,8 mm  | Distance ring grooves                             |
| $B_{N1}$      | 2 mm    | Distance ring grooves                             |
| $S_N$         | 7,6 mm  | Distance to lubrication hole                      |
| $S_B$         | 1,4 mm  | Width of lubricating groove                       |
| $a$           | 23,4 mm | Distance between the apexes of the pressure cones |

### Dimensions

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

|           |                      |                       |
|-----------|----------------------|-----------------------|
| $F_{VL}$  | 105 N                | Preload force light   |
| $F_{VM}$  | 275 N                | Preload force medium  |
| $F_{VH}$  | 572 N                | Preload force heavy   |
| $K_{aEL}$ | 301 N                | Lift-off force light  |
| $K_{aEM}$ | 794 N                | Lift-off force medium |
| $K_{aEH}$ | 1.671 N              | Lift-off force heavy  |
| $c_{aL}$  | 109 N/ $\mu\text{m}$ | Axial rigidity light  |
| $c_{aM}$  | 153 N/ $\mu\text{m}$ | Axial rigidity medium |
| $c_{aH}$  | 200 N/ $\mu\text{m}$ | Axial rigidity heavy  |

### Characteristics

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