

**FAG****VCM7005-C-T-P4S-UL-XL**

High speed spindle bearing

High speed spindle bearing VCM70..-C, adjusted, in pairs or sets, contact angle $\alpha = 17^\circ$, with ceramic balls, rings made from Vacrodur, restricted tolerances

Technical information



Your current product variant

| | | |
|-------------------------|-------------------|---|
| 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 DIN 620 |
| Arrangement bearing set | U | Single bearing |
| Preload | L | Preload light |

Main Dimensions & Performance Data

| | | |
|-----------------------|--------------|---------------------------------------|
| d | 25 mm | Bore diameter |
| D | 47 mm | Outside diameter |
| B | 12 mm | Width |
| C _r | 19.200 N | Basic dynamic load rating, radial |
| C _{0r} | 4.400 N | Basic static load rating, radial |
| C _{ur} | 223 N | Fatigue load limit, radial |
| n _{G Grease} | 60.000 1/min | Limiting speed for grease lubrication |
| n _{G Oil} | 90.000 1/min | Limiting speed for oil lubrication |
| ≈m | 71,66 g | Weight |



Mounting dimensions

| | | |
|----------------|---------|---|
| d_a | 30 mm | Diameter shaft shoulder |
| d_a | h12 | Diameter shaft shoulder clearance |
| D_a | 42 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 |
| $E_{tk \min}$ | 32,7 mm | Minimum diameter injection pitch |
| $E_{tk \max}$ | 34,4 mm | Maximum diameter injection pitch |
| $E_{tk1 \min}$ | 30,6 mm | Minimum diameter injection pitch |
| $E_{tk1 \max}$ | 34,4 mm | Maximum diameter injection pitch |
| a | 11,5 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_{VL} | 22 N | Preload force light |
| F_{VM} | 57 N | Preload force medium |
| F_{VH} | 119 N | Preload force heavy |
| K_{aEL} | 63 N | Lift-off force light |
| K_{aEM} | 169 N | Lift-off force medium |
| K_{aEH} | 362 N | Lift-off force heavy |
| c_{aL} | 24 N/ μm | Axial rigidity light |
| c_{aM} | 34 N/ μm | Axial rigidity medium |
| c_{aH} | 46 N/ μm | Axial rigidity heavy |

Characteristics

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