

**FAG****31318**

Tapered roller bearing

Tapered roller bearings 313, main dimensions
acc. to DIN 720, separable

Technical information

Your current product variant

| | | |
|-----------------|----------|--|
| Tolerance class | PN | Normal (ISO 492:2023) |
| Heat treatment | Standard | |
| Cage | Standard | Sheet steel cage, window cage, roller-guided |
| Internal design | Standard | |
| Quality level | Standard | |
| Number of rows | 1 | Single-row design |

Main Dimensions & Performance Data

| | | |
|-------------|-------------|-----------------------------------|
| d | 90 mm | Bore diameter |
| D | 190 mm | Outside diameter |
| B | 43 mm | Width, inner ring |
| C | 30 mm | Width, outer ring |
| T | 46.5 mm | Width, total |
| C_r | 275,000 N | Basic dynamic load rating, radial |
| C_{0r} | 325,000 N | Basic static load rating, radial |
| C_{ur} | 35,500 N | Fatigue load limit, radial |
| n_G | 3,700 1/min | Limiting speed |
| n_{gr} | 2,900 1/min | Thermal speed rating |
| $\approx m$ | 5.386 kg | Weight |





Mounting dimensions

| | | |
|--------------|---------|--------------------------------------|
| $d_{a \max}$ | 109 mm | Maximum diameter of shaft shoulder |
| $d_{b \min}$ | 104 mm | Minimum diameter of shaft shoulder |
| $D_{a \min}$ | 151 mm | Minimum diameter of housing shoulder |
| $D_{a \max}$ | 176 mm | Maximum diameter of housing shoulder |
| $D_{b \min}$ | 179 mm | Minimum diameter of housing shoulder |
| $C_{a \min}$ | 6 mm | Minimum axial space |
| $C_{b \min}$ | 16.5 mm | Minimum axial space |
| $r_{a \max}$ | 4 mm | Maximum fillet radius of shaft |
| $r_{b \max}$ | 3 mm | Maximum fillet radius of housing |

Dimensions

| | | |
|-----------------|----------|---|
| $r_{1, 2 \min}$ | 4 mm | Minimum chamfer dimension of inner ring back face |
| $r_{3, 4 \min}$ | 3 mm | Minimum chamfer dimension of outer ring back face |
| a | 58 mm | Distance between the apexes of the pressure cones |
| d_1 | 138.9 mm | Guidance rib diameter of inner ring |

Temperature range

| | | |
|------------|--------|----------------------------|
| T_{\min} | -30 °C | Operating temperature min. |
| T_{\max} | 120 °C | Operating temperature max. |

Calculation factors

| | | |
|-------|------|--|
| e | 0.83 | Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y |
| Y | 0.73 | Dynamic axial load factor |
| Y_0 | 0.4 | Static axial load factor |

Additional information

T7GB090

Comparative designation to ISO 10317 and ISO 355



Characteristics

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