

**FAG****1203-TVH**

Self-aligning ball bearing

Self-aligning ball bearing 12..-TVH, plastic cage

Technical information



Your current product variant

| | | |
|---------------------------|--------------|--|
| Bore type | Z | Cylindrical |
| Sealing | Without | Not sealed |
| Cage | TVH | Solid cage made of glass-fiber reinforced polyamide PA66 |
| Tolerance class | PN | Normal (ISO 492:2023) |
| Radial internal clearance | CN (Group N) | Normal internal clearance |
| Lubricant | Without | Bearing not greased |

Main Dimensions & Performance Data

| | | |
|----------|--------------|-----------------------------------|
| d | 17 mm | Bore diameter |
| D | 40 mm | Outside diameter |
| B | 12 mm | Width |
| C_r | 8,100 N | Basic dynamic load rating, radial |
| C_{0r} | 2,010 N | Basic static load rating, radial |
| C_{ur} | 128 N | Fatigue load limit, radial |
| n_G | 21,800 1/min | Limiting speed |
| n_{gr} | 17,400 1/min | Reference speed |
| m | 0.073 kg | Weight |

Mounting dimensions

| | | |
|--------------|---------|--------------------------------------|
| $d_{a \min}$ | 21.2 mm | Minimum diameter shaft shoulder |
| $D_{a \max}$ | 35.8 mm | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 0.6 mm | Maximum fillet radius |



Dimensions

| | | |
|------------|----------|------------------------------|
| r_{\min} | 0.6 mm | Minimum chamfer dimension |
| D_1 | 31.97 mm | Shoulder diameter outer ring |
| d_1 | 23.7 mm | Shoulder diameter inner ring |

Temperature range

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

Calculation factors

| | | |
|-------|------|--|
| e | 0.33 | Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y |
| Y_1 | 1.93 | Dynamic axial load factor |
| Y_2 | 2.98 | Dynamic axial load factor |
| Y_0 | 2.02 | Static axial load factor |

Characteristics

| | |
|---|--|
|  | Radial load |
|  | Axial load in one direction |
|  | Axial load in two directions |
|  | Grease Lubrication |
|  | Oil Lubrication |
|  | Not sealed |
|  | Static angular error and misalignment |
|  | Dynamic angular error and misalignment |