

**FAG****2220-M-C3**

Self-aligning ball bearing

Self-aligning ball bearing 22..-M, solid brass cage

Technical information



Your current product variant

| | | |
|---------------------------|--------------|-------------------------------------|
| Bore type | Z | Cylindrical |
| Type of Sealing | Without | Not sealed |
| Cage | M | Solid brass cage, ball guided |
| Tolerance class | PN | Tolerance class PN, acc. to DIN 620 |
| Radial internal clearance | C3 (Group 3) | Internal clearance larger than CN |
| Lubricant | Without | Bearing not greased |

Main Dimensions & Performance Data

| | | |
|-------------|-------------|-----------------------------------|
| d | 100 mm | Bore diameter |
| D | 180 mm | Outside diameter |
| B | 46 mm | Width |
| C_r | 98.000 N | Basic dynamic load rating, radial |
| C_{0r} | 40.500 N | Basic static load rating, radial |
| C_{ur} | 2.180 N | Fatigue load limit, radial |
| n_G | 5.700 1/min | Limiting speed |
| n_{gr} | 4.900 1/min | Reference speed |
| $\approx m$ | 4,98 kg | Weight |

Mounting dimensions

| | | |
|--------------|--------|--------------------------------------|
| $d_{a \min}$ | 112 mm | Minimum diameter shaft shoulder |
| $D_{a \max}$ | 168 mm | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 2,1 mm | Maximum fillet radius |



Dimensions

| | | |
|------------|-----------|------------------------------|
| r_{\min} | 2,1 mm | Minimum chamfer dimension |
| D_1 | 156,85 mm | Shoulder diameter outer ring |
| d_1 | 124,36 mm | Shoulder diameter inner ring |

Temperature range

| | | |
|------------|--------|----------------------------|
| T_{\min} | -30 °C | Operating temperature min. |
| T_{\max} | 150 °C | Operating temperature max. |

Calculation factors

| | | |
|-------|------|--------------------------------------------------------------------------------------|
| e | 0,27 | Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y |
| Y_1 | 2,33 | Dynamic axial load factor |
| Y_2 | 3,61 | Dynamic axial load factor |
| Y_0 | 2,45 | 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 |