

**FAG****22209-E1-XL>A**

Spherical Roller Bearing

Spherical roller bearings 222...-E1, main dimensions to DIN 635-2

X-life

Technical information

**Your current product variant**

| | | |
|---------------------------|--------------|---------------------------|
| Design | E1 | Without central rip |
| Bore type | Z | Cylindrical |
| Cage | JPA | Sheet metal cage |
| Radial internal clearance | CN (Group N) | Normal internal clearance |
| Relubrication facility | Standard | |

Main Dimensions & Performance Data

| | | |
|-------------|--------------|-----------------------------------|
| d | 45 mm | Bore diameter |
| D | 85 mm | Outside diameter |
| B | 23 mm | Width |
| C_r | 104.000 N | Basic dynamic load rating, radial |
| C_{0r} | 99.000 N | Basic static load rating, radial |
| C_{ur} | 13.000 N | Fatigue load limit, radial |
| n_G | 10.100 1/min | Limiting speed |
| n_{gr} | 5.600 1/min | Reference speed |
| $\approx m$ | 0,562 kg | Weight |

Mounting dimensions

| | | |
|--------------|-------|--------------------------------------|
| $d_{a \min}$ | 52 mm | Minimum diameter shaft shoulder |
| $D_{a \max}$ | 78 mm | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 1 mm | Maximum recess radius |



Dimensions

| | | |
|------------|---------|------------------------------------|
| r_{\min} | 1,1 mm | Minimum chamfer dimension |
| D_1 | 75,6 mm | Bore diameter outer ring |
| d_2 | 55 mm | Raceway diameter of the inner ring |
| d_s | 3,2 mm | Diameter lubrication hole |
| n_s | 4,8 mm | Width of lubricating groove |

Temperature range

| | | |
|------------|--------|----------------------------|
| T_{\min} | -30 °C | Operating temperature min. |
| T_{\max} | 200 °C | Operating temperature max. |

Calculation factors

| | | |
|-------|------|--|
| e | 0,25 | Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y |
| Y_1 | 2,74 | Dynamic axial load factor |
| Y_2 | 4,08 | Dynamic axial load factor |
| Y_0 | 2,68 | 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