



FAG

24138-BE-XL-K30-C3

Spherical Roller Bearing

Spherical roller bearings 241...-BE-K30, main dimensions to DIN 635-2, with tapered bore, taper 1:30

X-life

Technical information



Your current product variant

| | | |
|---------------------------|--------------|-----------------------------------|
| Design | BE | With lose center lip ring |
| Bore type | K30 | Tapered, taper 1:30 |
| Cage | JPB | Sheet metal cage |
| Radial internal clearance | C3 (Group 3) | Internal clearance larger than CN |
| Relubrication facility | Standard | |

Main Dimensions & Performance Data

| | | |
|-------------|-------------|-----------------------------------|
| d | 190 mm | Bore diameter |
| D | 320 mm | Outside diameter |
| B | 128 mm | Width |
| C_r | 1.680.000 N | Basic dynamic load rating, radial |
| C_{0r} | 2.550.000 N | Basic static load rating, radial |
| C_{ur} | 232.000 N | Fatigue load limit, radial |
| n_G | 1.850 1/min | Limiting speed |
| n_{gr} | 880 1/min | Reference speed |
| $\approx m$ | 40,445 kg | Weight |



Mounting dimensions

| | | |
|--------------|--------|--------------------------------------|
| $d_{a \min}$ | 204 mm | Minimum diameter shaft shoulder |
| $D_{a \max}$ | 306 mm | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 2,5 mm | Maximum recess radius |

Dimensions

| | | |
|------------|----------|------------------------------------|
| r_{\min} | 3 mm | Minimum chamfer dimension |
| D_1 | 271,6 mm | Bore diameter outer ring |
| d_2 | 217,4 mm | Raceway diameter of the inner ring |
| d_s | 6,3 mm | Diameter lubrication hole |
| n_s | 12,2 mm | Width of lubricating groove |

Temperature range

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

Calculation factors

| | | |
|-------|------|--|
| e | 0,37 | Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y |
| Y_1 | 1,82 | Dynamic axial load factor |
| Y_2 | 2,7 | Dynamic axial load factor |
| Y_0 | 1,78 | Static axial load factor |

Additional information

| | |
|---------|-------------------|
| AH24138 | Withdrawal sleeve |
|---------|-------------------|



Characteristics

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