

**FAG****240/500-BEA-XL-K30-MB1-C3**

Spherical Roller Bearing

Spherical roller bearings 240...-BEA-K30, main dimensions to DIN 635-2, with tapered bore, taper 1:30

X-life

Technical information

**Your current product variant**

| | | |
|---------------------------|--------------|-----------------------------------|
| Design | BEA | With lose center lip ring |
| Bore type | K30 | Tapered, taper 1:30 |
| Cage | MB1 | Solid brass cage |
| Radial internal clearance | C3 (Group 3) | Internal clearance larger than CN |
| Relubrication facility | Standard | |

Main Dimensions & Performance Data

| | | |
|-------------|--------------|-----------------------------------|
| d | 500 mm | Bore diameter |
| D | 720 mm | Outside diameter |
| B | 218 mm | Width |
| C_r | 5.700.000 N | Basic dynamic load rating, radial |
| C_{0r} | 11.100.000 N | Basic static load rating, radial |
| C_{ur} | 880.000 N | Fatigue load limit, radial |
| n_G | 750 1/min | Limiting speed |
| n_{gr} | 370 1/min | Reference speed |
| $\approx m$ | 283,5 kg | Weight |

Mounting dimensions

| | | |
|--------------|--------|--------------------------------------|
| $d_{a \min}$ | 523 mm | Minimum diameter shaft shoulder |
| $D_{a \max}$ | 697 mm | Maximum diameter of housing shoulder |
| $r_{a \max}$ | 5 mm | Maximum recess radius |



Dimensions

| | | |
|------------|----------|-----------------------------|
| r_{\min} | 6 mm | Minimum chamfer dimension |
| D_1 | 647,3 mm | Bore diameter outer ring |
| d_s | 12,5 mm | Diameter lubrication hole |
| n_s | 23,5 mm | Width of lubricating groove |

Temperature range

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

Calculation factors

| | | |
|-------|------|--------------------------------------------------------------------------------------|
| e | 0,27 | Limiting value of F_a/F_r for the applicability of diff. Values of factors X and Y |
| Y_1 | 2,51 | Dynamic axial load factor |
| Y_2 | 3,74 | 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 |
|  | Large bearing |
|  | Static angular error and misalignment |
|  | Dynamic angular error and misalignment |