



# 2304 M

## Self-aligning ball bearings

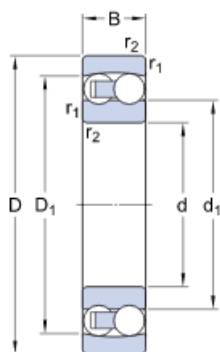
### Bearing data

[Tolerances](#),  
Normal, JS7,  
[Radial internal clearance](#),  
table

### Bearing interfaceS

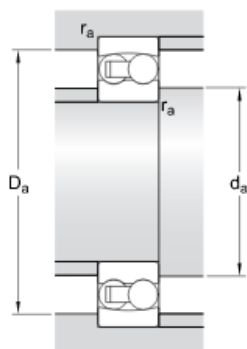
[Seat tolerances for standard conditions](#),  
[Tolerances and resultant fits](#)

## Technical specification



### DIMENSIONS

|                  |             |
|------------------|-------------|
| d                | 20 mm       |
| D                | 52 mm       |
| B                | 21 mm       |
| d <sub>1</sub>   | ≈ 29.15 mm  |
| D <sub>1</sub>   | ≈ 41.9 mm   |
| r <sub>1,2</sub> | min. 1.1 mm |



### ABUTMENT DIMENSIONS

|                |             |
|----------------|-------------|
| d <sub>a</sub> | min. 27 mm  |
| D <sub>a</sub> | max. 45 mm  |
| r <sub>a</sub> | max. 1.1 mm |

## CALCULATION DATA

|                                  |                |             |
|----------------------------------|----------------|-------------|
| Basic dynamic load rating        | C              | 18.2 kN     |
| Basic static load rating         | C <sub>0</sub> | 4.75 kN     |
| Fatigue load limit               | P <sub>u</sub> | 0.24 kN     |
| Reference speed                  |                | 26000 r/min |
| Limiting speed                   |                | 19000 r/min |
| Permissible angular misalignment | $\alpha$       | 3 °         |
| Calculation factor               | k <sub>r</sub> | 0.05        |
| Calculation factor               | e              | 0.52        |
| Calculation factor               | Y <sub>0</sub> | 1.3         |
| Calculation factor               | Y <sub>1</sub> | 1.2         |
| Calculation factor               | Y <sub>2</sub> | 1.9         |

## MASS

|              |         |
|--------------|---------|
| Mass bearing | 0.23 kg |
|--------------|---------|

## More information

| Product details                       | Engineering information                                 | Tools  |
|---------------------------------------|---|--|
| <a href="#">Designs and variants</a>  | <a href="#">Principles of rolling bearing selection</a> | <a href="#">Bearing Select</a>   |
| <a href="#">Bearing data</a>          | <a href="#">General bearing knowledge</a>               | <a href="#">SimPro Quick</a>   |
| <a href="#">Loads</a>                 | <a href="#">Bearing selection process</a>               | <a href="#">Engineering Calculator</a>                                 |
| <a href="#">Temperature limits</a>    | <a href="#">Bearing interfaces</a>                      | <a href="#">LubeSelect for SKF greases</a>                             |
| <a href="#">Permissible speed</a>     | <a href="#">Seat tolerances for standard conditions</a> | <a href="#">Heater selection tool</a>                                  |
| <a href="#">Design considerations</a> | <a href="#">Selecting internal clearance</a>            | <a href="#">Drive-up Method Program</a>                                |
| <a href="#">Mounting</a>              | <a href="#">Lubrication</a>                             | <a href="#">Oil Injection Method Program</a>                           |
| <a href="#">Designation system</a>    | <a href="#">Sealing, mounting and dismounting</a>       | <a href="#">Tool and Accessory Selector for sleeves and shafts</a>     |
|                                       | <a href="#">Bearing failure and how to prevent it</a>   | <a href="#">Housing Select</a>   |
|                                       |   | <a href="#">Rolling bearings mounting and dismounting instructions</a> |

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