



# 2202 ETN9 Self-aligning ball bearings

- Popular item

## Self-aligning ball bearings

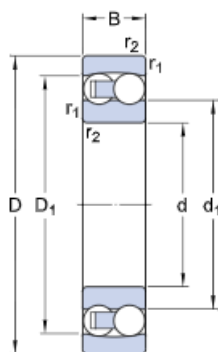
### Bearing data

Tolerances,  
Normal, JS7,  
Radial internal clearance,  
table

### Bearing interfaceS

Seat tolerances for standard  
conditions,  
Tolerances and resultant fits

## Technical specification

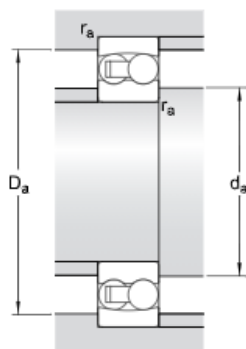


### DIMENSIONS

|                  |             |                              |
|------------------|-------------|------------------------------|
| d                | 15 mm       | Bore diameter                |
| D                | 35 mm       | Outside diameter             |
| B                | 14 mm       | Width                        |
| d <sub>1</sub>   | ≈ 20.86 mm  | Shoulder diameter inner ring |
| D <sub>1</sub>   | ≈ 29.5 mm   | Shoulder diameter outer ring |
| r <sub>1,2</sub> | min. 0.6 mm | Chamfer dimension            |

### ABUTMENT DIMENSIONS

|                |              |                           |
|----------------|--------------|---------------------------|
| d <sub>a</sub> | min. 19.2 mm | Abutment diameter shaft   |
| D <sub>i</sub> | max. 30.8 mm | Abutment diameter housing |
| r <sub>a</sub> | max. 0.6 mm  | Fillet radius             |



## CALCULATION DATA

|                |              |                                  |
|----------------|--------------|----------------------------------|
| C              | 8.71 kN      | Basic dynamic load rating        |
| C <sub>0</sub> | 2.04 kN      | Basic static load rating         |
| P <sub>u</sub> | 0.104 kN     | Fatigue load limit               |
|                | 38 000 r/min | Reference speed                  |
|                | 26 000 r/min | Limiting speed                   |
| α              | 2.5 °        | Permissible angular misalignment |
| k <sub>r</sub> | 0.045        | Calculation factor               |
| e              | 0.43         | Calculation factor               |
| Y <sub>0</sub> | 1.6          | Calculation factor               |
| Y <sub>1</sub> | 1.5          | Calculation factor               |
| Y <sub>2</sub> | 2.3          | Calculation factor               |

## MASS

|  |         |              |
|--|---------|--------------|
|  | 0.06 kg | Mass bearing |
|--|---------|--------------|