



# 2210 E-2RS1TN9 Self-aligning ball bearings

- Popular item

## Self-aligning ball bearings

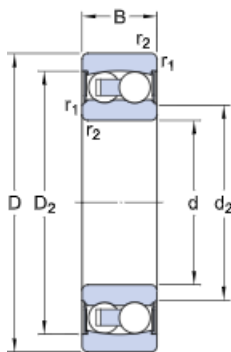
### Bearing data

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

### Bearing interfaceS

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

## Technical specification

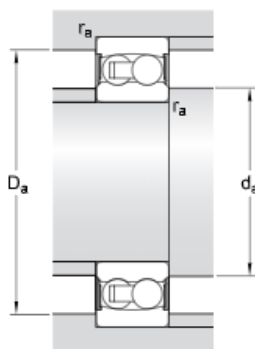


### DIMENSIONS

|                  |             |                            |
|------------------|-------------|----------------------------|
| d                | 50 mm       | Bore diameter              |
| D                | 90 mm       | Outside diameter           |
| B                | 23 mm       | Width                      |
| d <sub>2</sub>   | ≈ 57.7 mm   | Recess diameter inner ring |
| D <sub>2</sub>   | ≈ 79.4 mm   | Recess diameter outer ring |
| r <sub>1,2</sub> | min. 1.1 mm | Chamfer dimension          |

### ABUTMENT DIMENSIONS

|                            |                           |
|----------------------------|---------------------------|
| d <sub>a</sub> min. 57 mm  | Abutment diameter shaft   |
| d <sub>a</sub> max. 58 mm  | Abutment diameter shaft   |
| D <sub>i</sub> max. 83 mm  | Abutment diameter housing |
| r <sub>a</sub> max. 1.1 mm | Fillet radius             |



## CALCULATION DATA

|                |             |                                  |
|----------------|-------------|----------------------------------|
| C              | 22.9 kN     | Basic dynamic load rating        |
| C <sub>0</sub> | 8.15 kN     | Basic static load rating         |
| P <sub>u</sub> | 0.415 kN    | Fatigue load limit               |
|                | 4 800 r/min | Limiting speed                   |
| α              | 1.5 °       | Permissible angular misalignment |
| k <sub>r</sub> | 0.045       | Calculation factor               |
| e              | 0.2         | Calculation factor               |
| Y <sub>0</sub> | 3.2         | Calculation factor               |
| Y <sub>1</sub> | 3.2         | Calculation factor               |
| Y <sub>2</sub> | 4.9         | Calculation factor               |

## MASS

|  |         |              |
|--|---------|--------------|
|  | 0.57 kg | Mass bearing |
|--|---------|--------------|