

Image may differ from product. See technical specification for details.

# 61820-2RZ

## Deep groove ball bearing with seals or shields

Single row deep groove ball bearings with seals or shields are particularly versatile, have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than many other bearing types. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out. Also available on request with special sized bore and/or outside diameters, suitable for reworked shafts and housings.

- Integral sealing prolongs bearing service life
- Simple, versatile and robust design
- Low friction and high-speed capability
- Accommodate radial and axial loads in both directions
- Require little maintenance

# Overview

## Dimensions

| | |
|---|---|
| Bore diameter | 100 mm |
| Outside diameter | 125 mm |
| Width | 13 mm |

## Performance

| | |
|---|---|
| Basic dynamic load rating | 17.8 kN |
| Basic static load rating | 18.3 kN |
| Reference speed | 10 000 r/min |
| Limiting speed | 5 300 r/min |

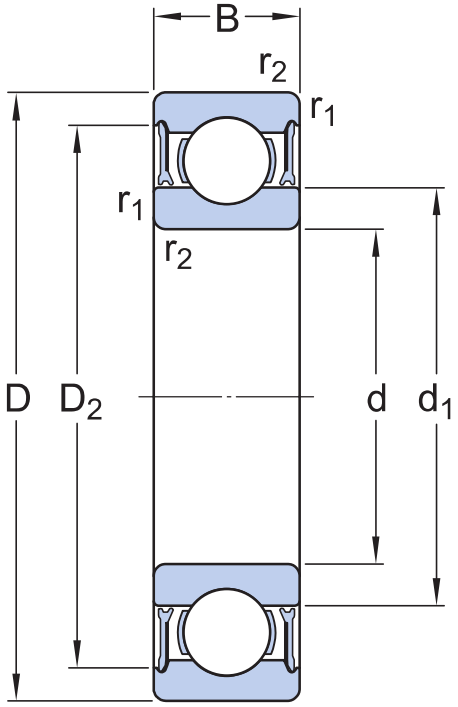
## Properties

| | |
|---|---|
| Filling slots | Without |
| Number of rows | 1 |
| Locating feature, bearing outer ring | Without |
| Bore type | Cylindrical |
| Cage | Sheet metal |
| Matched arrangement | No |
| Radial internal clearance | CN |
| Material, bearing | Bearing steel |
| Coating | Without |
| Sealing | Seal on both sides |
| Sealing type | Non-contact |
| Lubricant | Grease |
| Relubrication feature | Without |
| Indicative carbon footprint for new product | 1.2 kg $CO_2e$ |

## Logistics

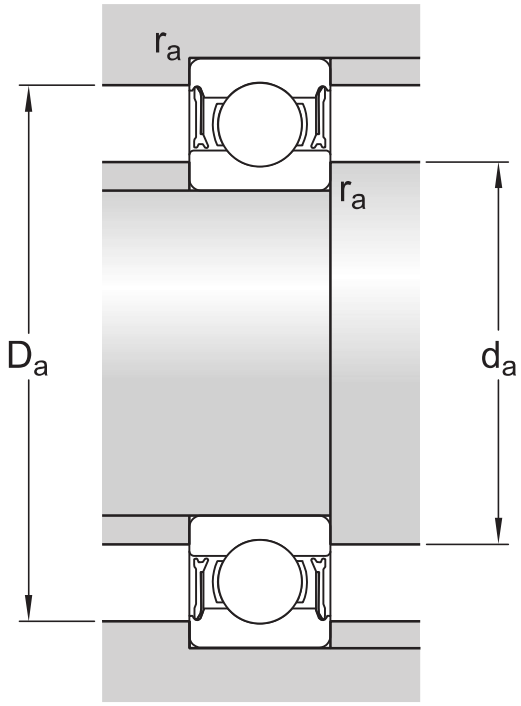
| | |
|---|---|
| Product net weight | 0.31 kg |
| eClass code | 23-05-08-01 |
| UNSPSC code | 31171504 |

# Technical specification




## Dimensions

| | | |
|---|---|---|
| d | 100 mm | Bore diameter |
| $t_{\Delta dmp}$ | -0.02 – 0 mm | Deviation limits of mid-range bore diameter |
| D | 125 mm | Outside diameter |
| $t_{\Delta Dmp}$ | -0.018 – 0 mm | Deviation limits of mid-range outside diameter |
| B | 13 mm | Width |
| $t_{\Delta Bs}$ | -0.2 – 0 mm | Deviation limits of ring width |
| $d_1$ | ≈ 108.3 mm | Shoulder diameter |
| $D_2$ | ≈ 119.3 mm | Recess diameter |
| $r_{1,2}$ | min. 1 mm | Chamfer dimension |
| | Normal | ISO tolerance class for dimensions |




## Abutment dimensions

| | | |
|---|---|---|
| $d_a$ | min. 105 mm | Diameter of shaft abutment |
| $d_a$ | max. 107.9 mm | Diameter of shaft abutment |
| $D_a$ | max. 120 mm | Diameter of housing abutment |
| $r_a$ | max. 1 mm | Radius of shaft or housing fillet |

## Calculation data

| | | |
|---|---|---|
| Basic dynamic load rating | C | 17.8 kN |
| Basic static load rating | $C_0$ | 18.3 kN |
| Fatigue load limit | $P_u$ | 0.95 kN |
| Reference speed | | 10 000 r/min |
| Limiting speed | | 5 300 r/min |
| Minimum load factor | $k_r$ | 0.015 |
| Calculation factor | $f_0$ | 13.3 |

## Tolerances of run-out

| | | |
|---|---|---|
| Range of section height at inner ring of assembled bearing | $t_{Kia}$ | 25 µm |
| Range of section height at outer ring of assembled bearing | $t_{Kea}$ | 40 µm |

| | |
|---|---|
| ISO tolerance class for geometrical tolerances | Normal |

## Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (metric), P6, P5, Normal (inch)
- Radial internal clearance: Classes C2 to C5

## BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fits

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