

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

# 6214 NR

## Deep groove ball bearing with snap ring

Single row deep groove ball bearings with a snap ring groove 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 snap ring, fitted in an annular groove in the outer ring, facilitates axial location of the bearings within their housings. Also available on request with special sized bore and/or outside diameters, suitable for reworked shafts and housings.

- Snap ring facilitates axial location within housing
- 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 | 70 mm |
| Outside diameter | 125 mm |
| Width | 24 mm |

## Performance

| | |
|---|---|
| Basic dynamic load rating | 63.7 kN |
| Basic static load rating | 45 kN |
| Reference speed | 11 000 r/min |
| Limiting speed | 7 000 r/min |
| SKF performance class | SKF Explorer |

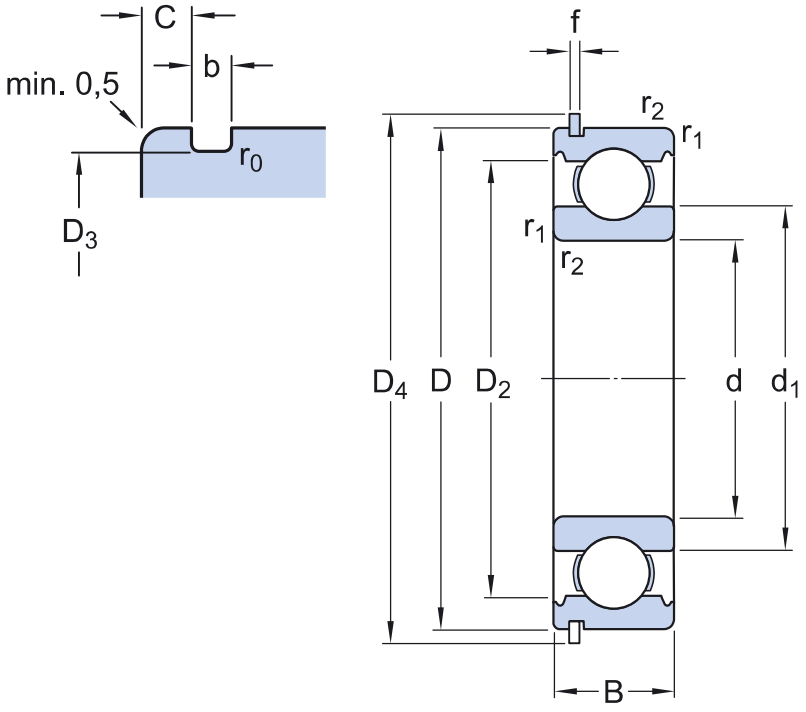
## Properties

| | |
|---|---|
| Filling slots | Without |
| Number of rows | 1 |
| Locating feature, bearing outer ring | Snap ring (fitted) |
| Bore type | Cylindrical |
| Cage | Sheet metal |
| Matched arrangement | No |
| Radial internal clearance | CN |
| Material, bearing | Bearing steel |
| Coating | Without |
| Sealing | Without |
| Lubricant | None |
| Relubrication feature | Without |
| Indicative carbon footprint for new product | 4.1 kg $CO_2e$ |

## Logistics

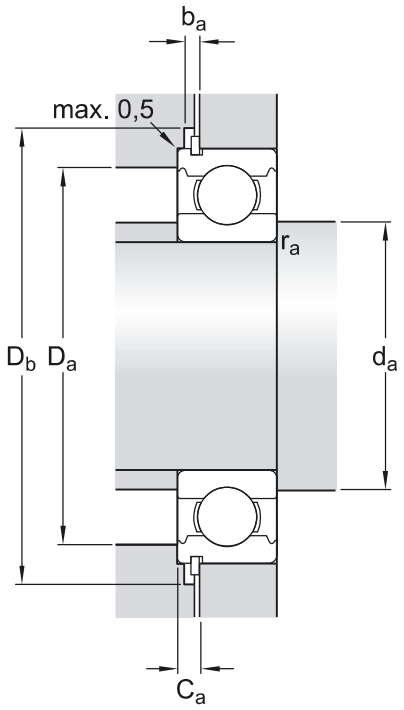
| | |
|---|---|
| Product net weight | 1.11 kg |
| eClass code | 23-05-08-01 |
| UNSPSC code | 31171504 |

## Technical specification




## Dimensions

| | | |
|---|---|---|
| d | 70 mm | Bore diameter |
| $t_{\Delta dmp}$ | -0.012 – 0 mm | Deviation limits of mid-range bore diameter |
| D | 125 mm | Outside diameter |
| $t_{\Delta Dmp}$ | -0.015 – 0 mm | Deviation limits of mid-range outside diameter |
| B | 24 mm | Width |
| $t_{\Delta Bs}$ | -0.1 – 0 mm | Deviation limits of ring width |
| $d_1$ | ≈ 87.05 mm | Shoulder diameter |
| $D_2$ | ≈ 111 mm | Recess diameter |
| $D_3$ | 120.22 mm | Diameter of snap ring groove |
| $D_4$ | 134.7 mm | Outside diameter of snap ring |
| b | 3.1 mm | Width of snap ring groove |
| C | 4.06 mm | Distance from outer ring side face to snap ring groove |
| f | 2.82 mm | Width of snap ring |
| $r_0$ | max. 0.6 mm | Bottom radius of snap ring groove |
| $r_{1,2}$ | min. 1.5 mm | Chamfer dimension |
| | P6 and tighter width tolerance | ISO tolerance class for dimensions |




## Abutment dimensions

| | | |
|---|---|---|
| $d_a$ | min. 79 mm | Diameter of shaft abutment |
| $D_a$ | max. 116 mm | Diameter of housing abutment |
| $D_b$ | min. 136 mm | Diameter of snap ring recess in the housing |
| $b_a$ | min. 3.5 mm | Width of snap ring recess in the housing |
| $C_a$ | max. 6.88 mm | Distance from outer ring side face to snap ring back face |
| $r_a$ | max. 1.5 mm | Radius of shaft or housing fillet |

## Calculation data

| | | |
|---|---|---|
| SKF performance class | | SKF Explorer |
| Basic dynamic load rating | C | 63.7 kN |
| Basic static load rating | $C_0$ | 45 kN |
| Fatigue load limit | $P_u$ | 1.9 kN |
| Reference speed | | 11 000 r/min |
| Limiting speed | | 7 000 r/min |
| Minimum load factor | $k_r$ | 0.025 |
| Calculation factor | $f_0$ | 14.7 |

## Tolerances of run-out

| | | |
|---|---|---|
| Range of section height at inner ring of assembled bearing | $t_{Kia}$ | 20 µm |
| Range of section height at outer ring of assembled bearing | $t_{Kea}$ | 40 µm |
| ISO tolerance class for geometrical tolerances | | Normal |

## Included products

| | |
|---|---|
| Snap ring | SP 125 |

## 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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