

# 6011-2Z

## 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.

- 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 | 55 mm |
| Outside diameter | 90 mm |
| Width | 18 mm |

### Performance

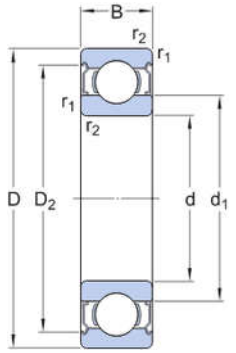
| | |
|---|---|
| Basic dynamic load rating | 29.6 kN |
| Basic static load rating | 21.2 kN |
| Limiting speed | 8 000 r/min |
| Reference speed | 16 000 r/min |

### Properties

| | |
|---|---|
| Bore type | Cylindrical |
| Cage | Sheet metal |
| Coating | Without |
| Filling slots | Without |
| Locating feature, bearing outer ring | None |
| Lubricant | Grease |
| Matched arrangement | No |
| Material, bearing | Bearing steel |
| Number of rows | 1 |
| Radial internal clearance | CN |
| Relubrication feature | Without |
| SKF performance class | SKF Explorer |
| Sealing | Shield on both sides |

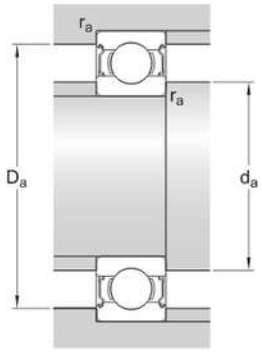
| | |
|---|---|
| Sealing type | Non-contact |

# Technical Specification




## Dimensions

| | | |
|---|---|---|
| d | 55 mm | Bore diameter |
| D | 90 mm | Outside diameter |
| B | 18 mm | Width |
| $d_1$ | ≈ 66.3 mm | Shoulder diameter |
| $D_2$ | ≈ 81.5 mm | Recess diameter |
| $r_{1,2}$ | min. 1.1 mm | Chamfer dimension |




## Abutment dimensions

| | | |
|---|---|---|
| $d_a$ | min. 61 mm | Diameter of shaft abutment |
| $d_a$ | max. 66.2 mm | Diameter of shaft abutment |
| $D_a$ | max. 84 mm | Diameter of housing abutment |
| $r_a$ | max. 1 mm | Radius of shaft or housing fillet |

## Calculation data

| | | |
|---|---|---|
| Basic dynamic load rating | C | 29.6 kN |
| Basic static load rating | $C_0$ | 21.2 kN |
| Fatigue load limit | $P_u$ | 0.9 kN |
| Reference speed | | 16 000 r/min |
| Limiting speed | | 8 000 r/min |
| Minimum load factor | $k_r$ | 0.025 |
| Calculation factor | $f_0$ | 15.4 |

## Mass

| | |
|---|---|
| Mass bearing | 0.4 kg |

## Tolerance class

| | |
|---|---|
| Dimensional tolerances | P6 |
| Radial run-out | P6 |

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