



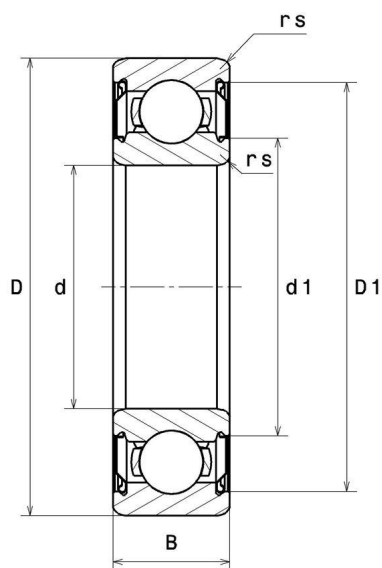
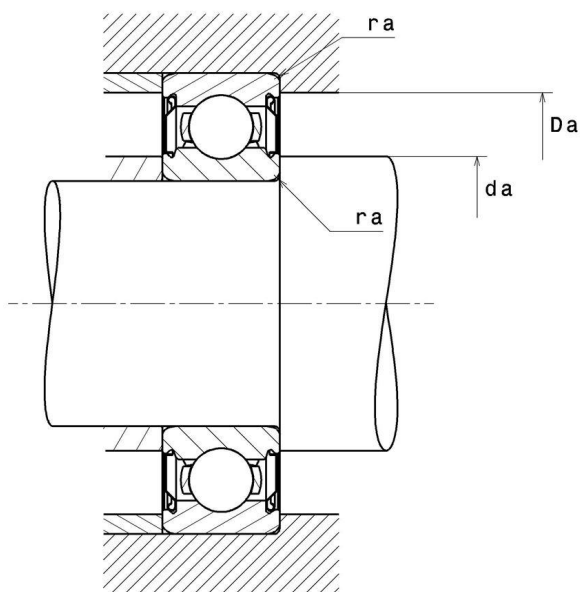
**Technical data**

**6307ZZC3**

Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, shields on both sides

**VISUAL (S)**



# 6307ZZC3

Single row deep groove ball bearings

## PRODUCT DIMENSIONS

|  |          |
|--|----------|
| <b>Internal diameter d</b>             | 35 mm    |
| <b>External diameter D</b>             | 80 mm    |
| <b>Bearing/Inner ring width(B)</b>     | 21 mm    |
| <b>External diameter inner ring d1</b> | 48,7 mm  |
| <b>Inner diameter outer ring D1</b>    | 68,8 mm  |
| <b>Min fillet radius rs</b>            | 1,5 mm   |
| <b>Radial clearance class</b>          | C3       |
| <b>Mass</b>                            | 0,454 kg |
| <b>Brand</b>                           | SNR      |

## PRODUCT PERFORMANCE

|  |              |
|--|--------------|
| <b>Dynamic load, C</b>                               | 33 kN        |
| <b>Static load, C0</b>                               | 19,3 kN      |
| <b>Fatigue limit load, Cu</b>                        | 0,88 kN      |
| <b>Coefficient f0</b>                                | 13.2         |
| <b>Reference thermal speed (Nref)</b>                | 9900 tr/min  |
| <b>Mechanical Limit Speed Nlim</b>                   | 11000 tr/min |
| <b>Min operating temperature, Tmin</b>               | -30 °C       |
| <b>Max operating temperature, Tmax</b>               | 120 °C       |
| <b>Characteristic cage frequency, FTF</b>            | 0.385 Hz     |
| <b>Characteristic rolling element frequency, BSF</b> | 4.105 Hz     |
| <b>Characteristic outer ring frequency, BPF0</b>     | 3.077 Hz     |
| <b>Characteristic inner ring frequency, BRF0</b>     | 4.923 Hz     |

## ABUTMENT

|   |         |
|---|---------|
| <b>Min shoulder diameter IR da min</b>              | 43 mm   |
| <b>Max shoulder diameter IR da max</b>              | 48,7 mm |
| <b>Max shoulder diameter OR Da max</b>              | 72 mm   |
| <b>Max shaft &amp; housing fillet radius ra max</b> | 1,5 mm  |

## INDUSTRY CALCUL FACTORS

## Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

| $\frac{f_0 F_a}{C_0}$ | e    | Fa / Fr ≤ e |   | Fa / Fr > e |      |
|-----------------------|------|-------------|---|-------------|------|
|                       |      | X           | Y | X           | Y    |
| 0.172                 | 0.19 | 1           | 0 | 0.56        | 2.3  |
| 0.345                 | 0.22 |             |   |             | 1.99 |
| 0.689                 | 0.26 |             |   |             | 1.71 |
| 1.03                  | 0.28 |             |   |             | 1.55 |
| 1.38                  | 0.3  |             |   |             | 1.45 |
| 2.07                  | 0.34 |             |   |             | 1.31 |
| 3.45                  | 0.38 |             |   |             | 1.15 |
| 5.17                  | 0.42 |             |   |             | 1.04 |
| 6.89                  | 0.44 |             |   |             | 1    |

## Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

| $X_0$ | $Y_0$ |
|-------|-------|
| 0.6   | 0.5   |

For single or DT bearing arrangement:

If  $P_0 < F_r$ , then use  $P_0 = F_r$