

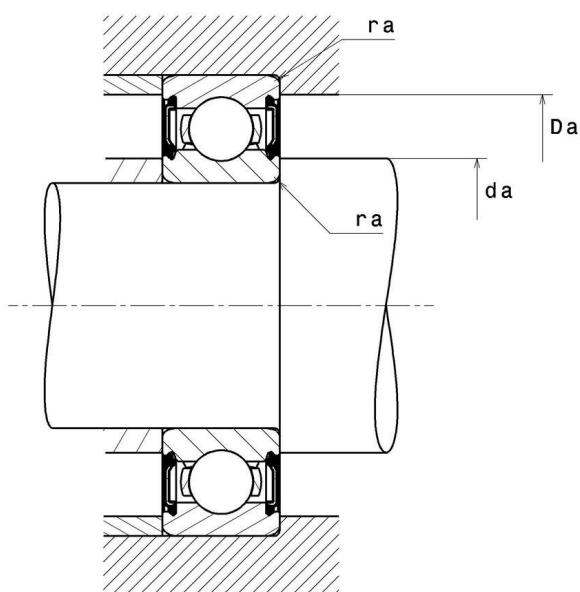
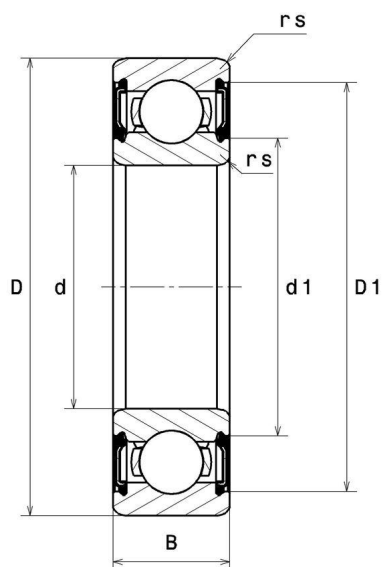
## Technical data

### 6203LLBC3/5K

Single row deep groove ball bearings

Deep groove ball bearing, radial contact, pressed steel cage, non-contact seals on both sides

#### VISUAL (S)



# 6203LLBC3/5K

Single row deep groove ball bearings

## PRODUCT DIMENSIONS

|                                    |          |
|------------------------------------|----------|
| <b>Internal diameter d</b>         | 17 mm    |
| <b>External diameter D</b>         | 40 mm    |
| <b>Bearing/Inner ring width(B)</b> | 12 mm    |
| <b>Min fillet radius rs</b>        | 0,6 mm   |
| <b>Radial clearance class</b>      | C3       |
| <b>Mass</b>                        | 0,066 kg |
| <b>Brand</b>                       | NTN      |

## PRODUCT PERFORMANCE

|  |              |
|--|--------------|
| <b>Dynamic load, C</b>                               | 10,6 kN      |
| <b>Static load, C0</b>                               | 4,6 kN       |
| <b>Fatigue limit load, Cu</b>                        | 0,355 kN     |
| <b>Coefficient f0</b>                                | 12.8         |
| <b>Nlim (grease)</b>                                 | 18000 tr/min |
| <b>Min operating temperature, Tmin</b>               | -25 °C       |
| <b>Max operating temperature, Tmax</b>               | 110 °C       |
| <b>Characteristic cage frequency, FTF</b>            | 0.376 Hz     |
| <b>Characteristic rolling element frequency, BSF</b> | 3.783 Hz     |
| <b>Characteristic outer ring frequency, BPF0</b>     | 2.632 Hz     |
| <b>Characteristic inner ring frequency, BRF1</b>     | 4.368 Hz     |

## ABUTMENT

|   |        |
|---|--------|
| <b>Min shoulder diameter IR da min</b>              | 21 mm  |
| <b>Max shoulder diameter IR da max</b>              | 23 mm  |
| <b>Max shoulder diameter OR Da max</b>              | 36 mm  |
| <b>Max shaft &amp; housing fillet radius ra max</b> | 0,6 mm |

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## 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  $P_0 = F_r$