



Brand of NTN corporation

## Technical data

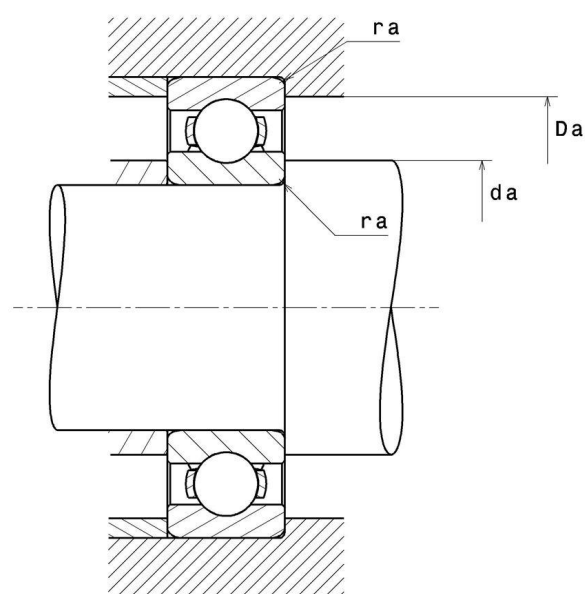
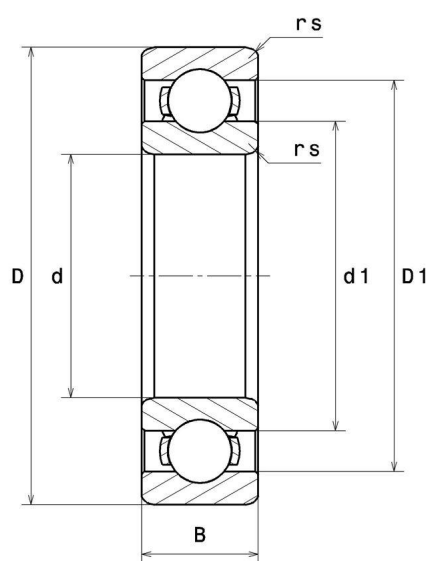
### 6203C4

Single row deep groove ball bearings



Deep groove ball bearing, radial contact, pressed steel cage, open

#### VISUAL (S)



**NTN Europe**

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S.A. au capital de 322 639 919 € · RCS ANNECY B 325 821 072 · Id. Fiscale : FR 48 325 821 072  
SIRET 325 821 072 00015 · Code APE 2815 Z · Code NACE 28.15

# 6203C4

Single row deep groove ball bearings

## PRODUCT DEFINITION

|                                   |          |
|-----------------------------------|----------|
| Brand                             | SNR      |
| d - Internal diameter             | 17 mm    |
| D - External diameter             | 40 mm    |
| B - Bearing/Inner ring width      | 12 mm    |
| d1 - External diameter inner ring | 24,1 mm  |
| D1 - Inner diameter outer ring    | 34,9 mm  |
| rs - Min fillet radius            | 0,6 mm   |
| Radial clearance class            | C4       |
| Mass                              | 0,066 kg |

## PRODUCT PERFORMANCE

|                                  |             |
|----------------------------------|-------------|
| C - Dynamic load                 | 10100000 mN |
| C0 - Static load                 | 4750000 mN  |
| Cu - Fatigue limit load          | 220000 mN   |
| f0 - Coefficient                 | 13.1        |
| N ref - Reference thermal speed  | 108000 °/s  |
| N lim - Mechanical Limit Speed   | 180000 °/s  |
| Tmin - Min operating temperature | 233,15 °K   |
| Tmax - Max operating temperature | 393,15 °K   |

## BEARING FREQUENCIES

|                                                          |          |
|----------------------------------------------------------|----------|
| BPFO - Over rolling frequency on outer ring (60 rpm)     | 3.053 Hz |
| BPFI - Over rolling frequency on inner (60 rpm)          | 4.947 Hz |
| BSF - Over rolling frequency on rolling element (60 rpm) | 3.987 Hz |
| BRF - Rotational frequency - rolling element (60 rpm)    | 1.994 Hz |



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## BEARING FREQUENCIES

|                                            |          |
|--------------------------------------------|----------|
| FTF - Rotational frequency - cage (60 rpm) | 0.382 Hz |
|--------------------------------------------|----------|

## ABUTMENT

|                                            |        |
|--------------------------------------------|--------|
| da min - Min shoulder diameter IR          | 21 mm  |
| Da max - Max shoulder diameter OR          | 36 mm  |
| ra max - Max shaft & housing fillet radius | 0,6 mm |

## INDUSTRY CALCUL FACTORS

Equivalent dynamic radial load

$$P = X.Fr + Y.Fa$$

| $\frac{f_0 F_a}{C_0}$ | 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

$$P_0 = X_0.Fr + Y_0.Fa$$

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

For single or DT bearing arrangement :

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



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