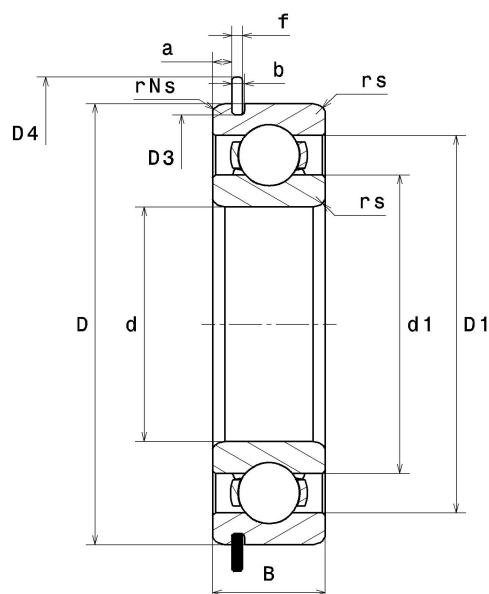


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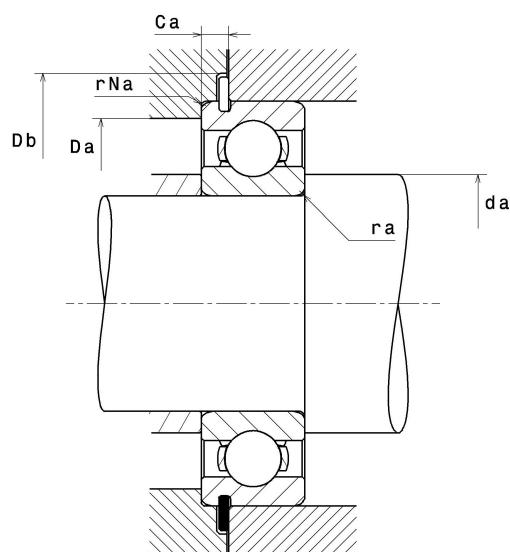


### Single row deep groove ball bearings

| Product definition     |           |
|------------------------|-----------|
| d                      | 65 mm     |
| D                      | 140 mm    |
| B                      | 33 mm     |
| a min                  | 4.65 mm   |
| a max                  | 4.90 mm   |
| Ca min                 | 7.37 mm   |
| Ca max                 | 7.72 mm   |
| rs min                 | 2.10 mm   |
| rNs min                | 0.50 mm   |
| D3 max                 | 135.23 mm |
| b min                  | 3.10 mm   |
| b max                  | 3.40 mm   |
| r0 max                 | 0.60 mm   |
| D4 max                 | 149.70 mm |
| f                      | 2.82 mm   |
| Snap ring reference    | R140      |
| Radial clearance class | CN        |
| Mass                   | 2.08 kg   |
| Brand                  | NTN       |



| Product performance                           |              |
|-----------------------------------------------|--------------|
| Dynamic load, C                               | 92.50 kN     |
| Static load, C0                               | 60 kN        |
| Fatigue limit load, Cu                        | 2.70 kN      |
| f0                                            | 13.2         |
| Nlim (oil)                                    | 5,800 Tr/min |
| Nlim (grease)                                 | 4,900 Tr/min |
| Min operating temperature, Tmin               | -20 °C       |
| Max operating temperature, Tmax               | 120 °C       |
| Characteristic cage frequency, FTF            | 0.38 Hz      |
| Characteristic rolling element frequency, BSF | 4.07 Hz      |
| Characteristic outer ring frequency, BPF0     | 3.07 Hz      |
| Characteristic inner ring frequency, BPF1     | 4.93 Hz      |



### Abutment dimensions

|         |         |
|---------|---------|
| da min  | 76 mm   |
| Da max  | 129 mm  |
| ra max  | 2 mm    |
| rNa max | 0.50 mm |
| Db min  | 152 mm  |

### Calculation factors

#### Equivalent dynamic radial load

$$P = X \cdot Fr + Y \cdot Fa$$

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

$$P_0 = X_0 \cdot Fr + Y_0 \cdot Fa$$

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

For single or DT bearing arrangement:

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