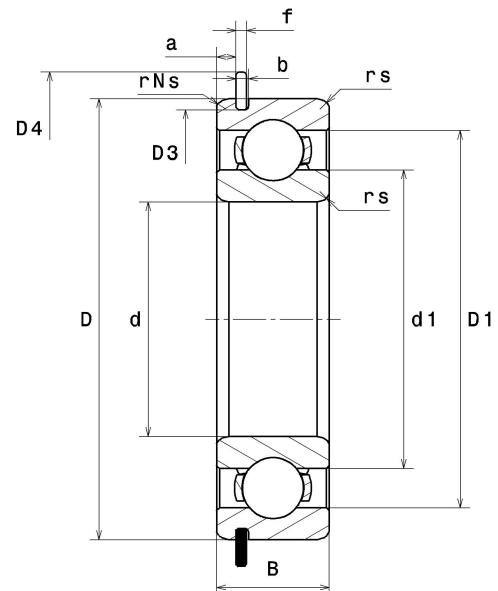


## PDF technical sheet 63/22NRC3

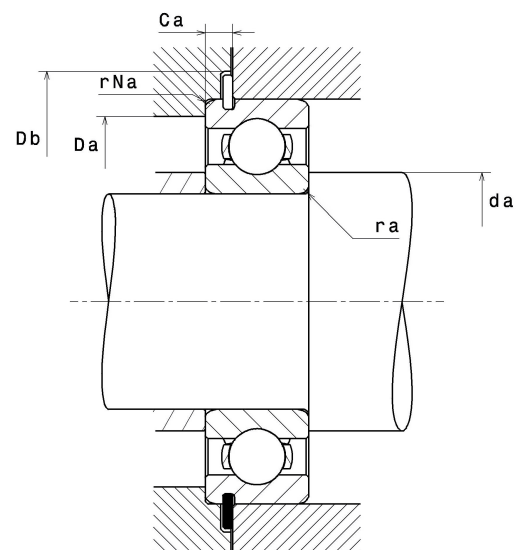


### Single row deep groove ball bearings

| Product definition     |          |
|------------------------|----------|
| d                      | 0.8661 " |
| D                      | 2.2047 " |
| B                      | 0.6299 " |
| a min                  | 0.0909 " |
| a max                  | 0.0969 " |
| Ca min                 | 0.1350 " |
| Ca max                 | 0.1409 " |
| rs min                 | 0.0433 " |
| rNs min                | 0.0197 " |
| D3 max                 | 2.1102 " |
| b min                  | 0.0531 " |
| b max                  | 0.0650 " |
| r0 max                 | 0.0157 " |
| D4 max                 | 2.4291 " |
| f                      | 0.0441 " |
| Snap ring reference    | R56      |
| Radial clearance class | C3       |
| Mass                   | 0.62 oz  |
| Brand                  | NTN      |



| Product performance                           |            |
|-----------------------------------------------|------------|
| Dynamic load, C                               | 18.40 kN   |
| Static load, C0                               | 9.25 kN    |
| Fatigue limit load, Cu                        | 0.42 kN    |
| f0                                            | 12.4       |
| Nlim (oil)                                    | 15,000 RPM |
| Nlim (grease)                                 | 13,000 RPM |
| Min operating temperature, Tmin               | -76 °C     |
| Characteristic cage frequency, FTF            | 0.37 Hz    |
| Characteristic rolling element frequency, BSF | 3.52 Hz    |
| Characteristic outer ring frequency, BPF0     | 2.57 Hz    |
| Characteristic inner ring frequency, BPF1     | 4.43 Hz    |



### Abutment dimensions

|         |          |
|---------|----------|
| da min  | 1.1220 " |
| Da max  | 1.9488 " |
| ra max  | 0.0394 " |
| rNa max | 0.0197 " |
| Db min  | 2.4606 " |

### Calculation factors

#### Equivalent dynamic radial load

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

| $\frac{f_0 F_a}{C_0}$ | e    | $F_a / Fr \leq e$ |   | $F_a / Fr > e$ |      |
|-----------------------|------|-------------------|---|----------------|------|
|                       |      | 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  $P_0 = Fr$