

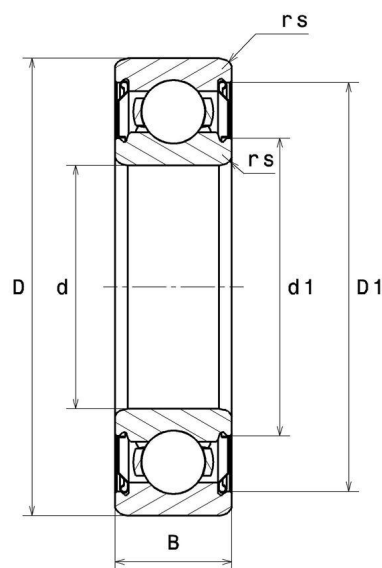
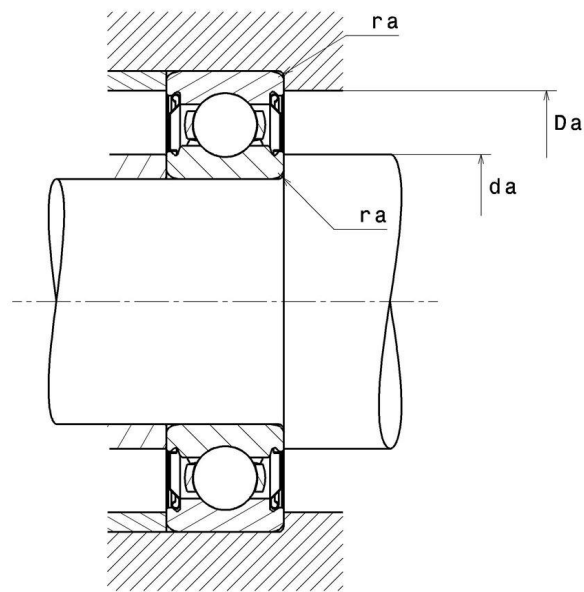
Technical data

6309ZZCM/5K

Single row deep groove ball bearings

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

VISUAL (S)



6309ZZCM/5K

Single row deep groove ball bearings

PRODUCT DIMENSIONS

| | |
|------------------------------------|----------|
| Internal diameter d | 45 mm |
| External diameter D | 100 mm |
| Bearing/Inner ring width(B) | 25 mm |
| Min fillet radius rs | 1,5 mm |
| Radial clearance class | CM |
| Mass | 0,814 kg |
| Brand | NTN |

PRODUCT PERFORMANCE

| | |
|--|-------------|
| Dynamic load, C | 58,5 kN |
| Static load, C0 | 32 kN |
| Fatigue limit load, Cu | 2,5 kN |
| Coefficient f0 | 13.1 |
| Nlim (grease) | 7000 tr/min |
| Min operating temperature, Tmin | -40 °C |
| Max operating temperature, Tmax | 150 °C |
| Characteristic cage frequency, FTF | 0.382 Hz |
| Characteristic rolling element frequency, BSF | 4.002 Hz |
| Characteristic outer ring frequency, BPF0 | 3.056 Hz |
| Characteristic inner ring frequency, BPF1 | 4.944 Hz |

ABUTMENT

| | |
|---|--------|
| Min shoulder diameter IR da min | 53 mm |
| Max shoulder diameter OR Da max | 92 mm |
| Max shaft & housing fillet radius ra max | 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 $P_0 = F_r$