



Brand of NTN corporation

Technical data

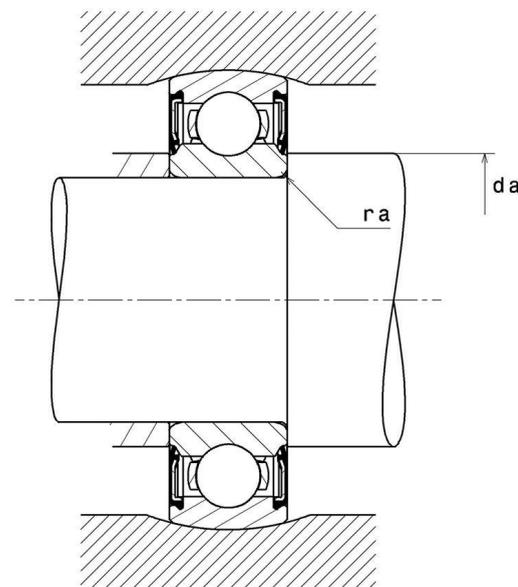
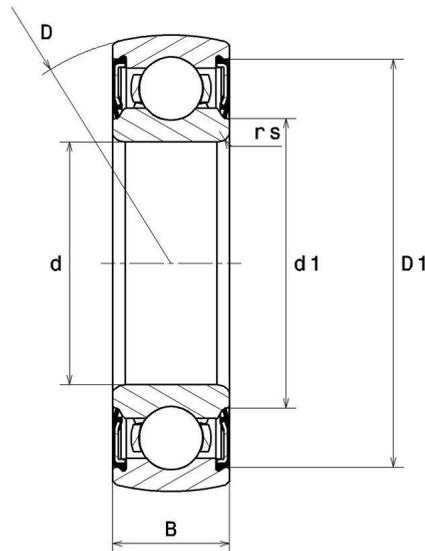
6205SEE

Single row deep groove ball bearings



Deep groove ball bearing, radial contact, pressed steel cage, spherical outer diameter, contact seals on both sides

VISUAL (S)



NTN Europe

1 rue des Usines · BP 2017 · 74010 Annecy Cedex · France · Tel. +33 (0)4 50 65 30 00
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

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Single row deep groove ball bearings

PRODUCT DEFINITION

| | |
|--|---------|
| Brand | SNR |
| d - Internal diameter | 25 mm |
| D - External diameter | 52 mm |
| B - Bearing/Inner ring width | 15 mm |
| d1 - External diameter inner ring | 31,8 mm |
| D1 - Inner diameter outer ring | 49,2 mm |
| rs - Min fillet radius | 1 mm |
| rNs - Min fillet radius | 0,55 mm |
| Radial clearance class | CN |

PRODUCT PERFORMANCE

| | |
|---|-------------|
| C - Dynamic load | 13800000 mN |
| C0 - Static load | 7900000 mN |
| Cu - Fatigue limit load | 450000 mN |
| f0 - Coefficient | 13.9 |
| N lim - Grease lubrication limit speed | 49200 °/s |
| N lim - Mechanical Limit Speed | 54000 °/s |
| Tmin - Min operating temperature | 243,15 °K |
| Tmax - Max operating temperature | 393,15 °K |

BEARING FREQUENCIES

| | |
|---|----------|
| BPFO - Over rolling frequency on outer ring (60 rpm) | 3.585 Hz |
| BPFI - Over rolling frequency on inner (60 rpm) | 5.415 Hz |
| BSF - Over rolling frequency on rolling element (60 rpm) | 4.715 Hz |
| FTF - Rotational frequency - cage (60 rpm) | 0.398 Hz |



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ABUTMENT

| | |
|---|---------|
| da min - Min shoulder diameter IR | 30 mm |
| da max - Max shoulder diameter IR | 31,8 mm |
| Da max - Max shoulder diameter OR | 47 mm |
| ra max - Max shaft & housing fillet radius | 1 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 $P_0 = F_r$



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