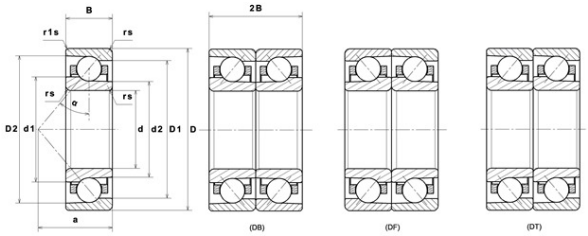
# PDF technical sheet
# 7026UCG/GNP42U3G

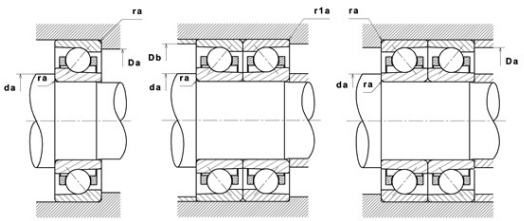
## High precision angular contact ball bearings

High precision angular contact ball bearing, moulded polyamide cage centred on balls

| Product definition | |
|---|---|
| d | 5.1181 " |
| D | 7.8740 " |
| B | 1.2992 " |
| d1 | 6.0591 " |
| d2 | 5.8465 " |
| D1 | 6.9370 " |
| D2 | 7.3661 " |
| a | 1.5236 " |
| Contact angle, a | 15 ° |
| rs min | 0.0787 " |
| r1s min | 0.0394 " |
| f0 | 15.9 |
| Precision class | P42 |
| Mass | 11.46 oz |
| Brand | NTN |




| Product performance | |
|---|---|
| Dynamic load, C | 133 kN |
| Static load, C0 | 144 kN |
| Nlim (oil) | 11,400 RPM |
| Nlim (grease) | 7,100 RPM |
| Preload level | GN |
| Peload value | 800 kN |
| axial rigidity | 163.2 N/$\mu$m |
| radial rigidity | 945 N/$\mu$m |
| Min operating temperature, Tmin | −4 °C |
| Max operating temperature, Tmax | 248 °C |
| Characteristic cage frequency, FTF | 0.44 Hz |
| Characteristic rolling element frequency, BSF | 7.88 Hz |
| Characteristic outer ring frequency, BPF0 | 9.67 Hz |
| Characteristic inner ring frequency, BPFI | 12.33 Hz |




NTN-SNR ROULEMENTS – www.ntn-snr.com
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| Abutment dimensions | |
|---|---|
| da min | 5.5118 " |
| Da max | 7.4803 " |
| Db max | 7.6575 " |
| r1a max | 0.0394 " |
| ra max | 0.0787 " |
| D6 | 6.0591 " |

## Calculation factors

**Equivalent dynamic radial load**

$P = X.Fr + Y.Fa$

| Series | | | | e | Single or DT bearing arrangement | | | | DB or DF arrangement | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fa / Fr ≤ e | | Fa / Fr > e | | Fa / Fr ≤ e | | Fa / Fr > e | |
| | | | | | X | Y | X | Y | X | Y | X | Y |
| 70 (NTN & SNR)<br>72 (NTN & SNR)<br>78 (NTN)<br>79 (NTN)<br>719 (SNR) | | 15° | 0.178 | 0.38 | 1 | 0 | 0.44 | 1.47 | 1 | 1.65 | 0.72 | 2.39 |
| | | | 0.357 | 0.4 | | | | 1.4 | | 1.57 | | 2.28 |
| | | | 0.714 | 0.43 | | | | 1.3 | | 1.46 | | 2.11 |
| | | | 1.07 | 0.46 | | | | 1.23 | | 1.38 | | 2 |
| | | | 1.43 | 0.47 | | | | 1.19 | | 1.34 | | 1.93 |
| | | | 2.14 | 0.5 | | | | 1.12 | | 1.26 | | 1.82 |
| | | | 3.57 | 0.55 | | | | 1.02 | | 1.14 | | 1.66 |
| | | | 5.35 | 0.56 | | | | | | 1.12 | | 1.63 |
| | | | 7.14 | 0.56 | | | | 1 | | 1.12 | | 1.63 |
| | | 25° | | 0.68 | | | 0.41 | 0.87 | | 0.92 | 0.67 | 1.41 |
| | | 30° | | 0.8 | | | 0.39 | 0.76 | | 0.78 | 0.63 | 1.24 |

**Equivalent static radial load**

$P_0 = X_0.Fr + Y_0.Fa$

| Series | | | Single or DT bearing arrangement | | DB or DF arrangement | |
|---|---|---|---|---|---|---|
| | | | $X_0$ | $Y_0$ | $X_0$ | $Y_0$ |
| 70 (NTN & SNR)<br>72 (NTN & SNR)<br>78 (NTN)<br>79 (NTN)<br>719 (SNR) | | 15° | 0.5 | 0.46 | 1 | 0.92 |
| | | 25° | | 0.38 | | 0.76 |
| | | 30° | | 0.33 | | 0.66 |

For single or DT bearing arrangement :

If Po <Fr, then use Po = Fr