

## PDF technical sheet 7222BL1G

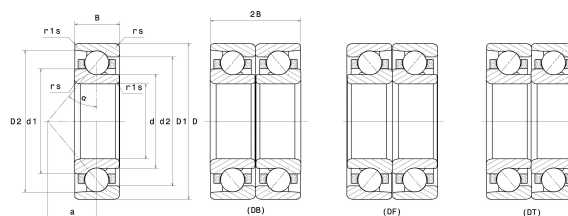


### Single row or matched pairs of angular contact ball bearings

Angular contact ball bearing, brass cage inner ring guided

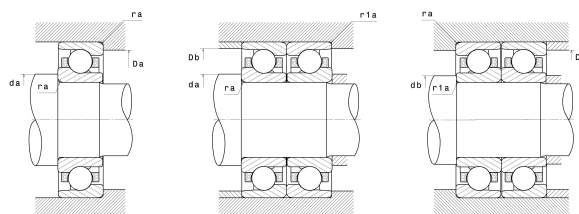
#### Product definition

|                         |          |
|-------------------------|----------|
| d                       | 4.3307 " |
| D                       | 7.8740 " |
| B                       | 1.4961 " |
| a                       | 3.3071 " |
| Contact angle, $\alpha$ | 40 °     |
| rs min                  | 0.0827 " |
| r1s min                 | 0.0433 " |
| Radial clearance class  | CN       |
| Mass                    | 18.13 oz |
| Brand                   | NTN      |



#### Product performance

|                                 |           |
|---------------------------------|-----------|
| Dynamic load, C                 | 154 kN    |
| Static load, C0                 | 144 kN    |
| Fatigue limit load, Cu          | 5.30 kN   |
| Nlim (oil)                      | 4,000 RPM |
| Nlim (grease)                   | 3,000 RPM |
| Min operating temperature, Tmin | -40 °C    |
| Max operating temperature, Tmax | 248 °C    |



#### Abutment dimensions

|         |          |
|---------|----------|
| da min  | 4.8031 " |
| db min  | 4.6063 " |
| Da max  | 7.4016 " |
| Db max  | 7.5984 " |
| r1a max | 0.0394 " |
| ra max  | 0.0787 " |

## Calculation factors

### Equivalent dynamic radial load

$$P = X.F_r + Y.F_a$$

|     | 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    |
| 30° | 0.8  | 1                                | 0 | 0.9         | 0.76 | 1                    | 0.78 | 0.63        | 1.24 |
| 40° | 1.14 |                                  |   | 0.35        | 0.57 |                      | 0.55 | 0.57        | 0.93 |

### Equivalent static radial load

$$P_0 = X_0.F_r + Y_0.F_a$$

| a   | Single or DT bearing arrangement |                | DB or DF arrangement |                |
|-----|----------------------------------|----------------|----------------------|----------------|
|     | X <sub>0</sub>                   | Y <sub>0</sub> | X <sub>0</sub>       | Y <sub>0</sub> |
| 30° | 0.5                              | 0.33           | 1                    | 0.66           |
| 40° |                                  | 0.26           |                      | 0.52           |

For single or DT bearing arrangement :

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