



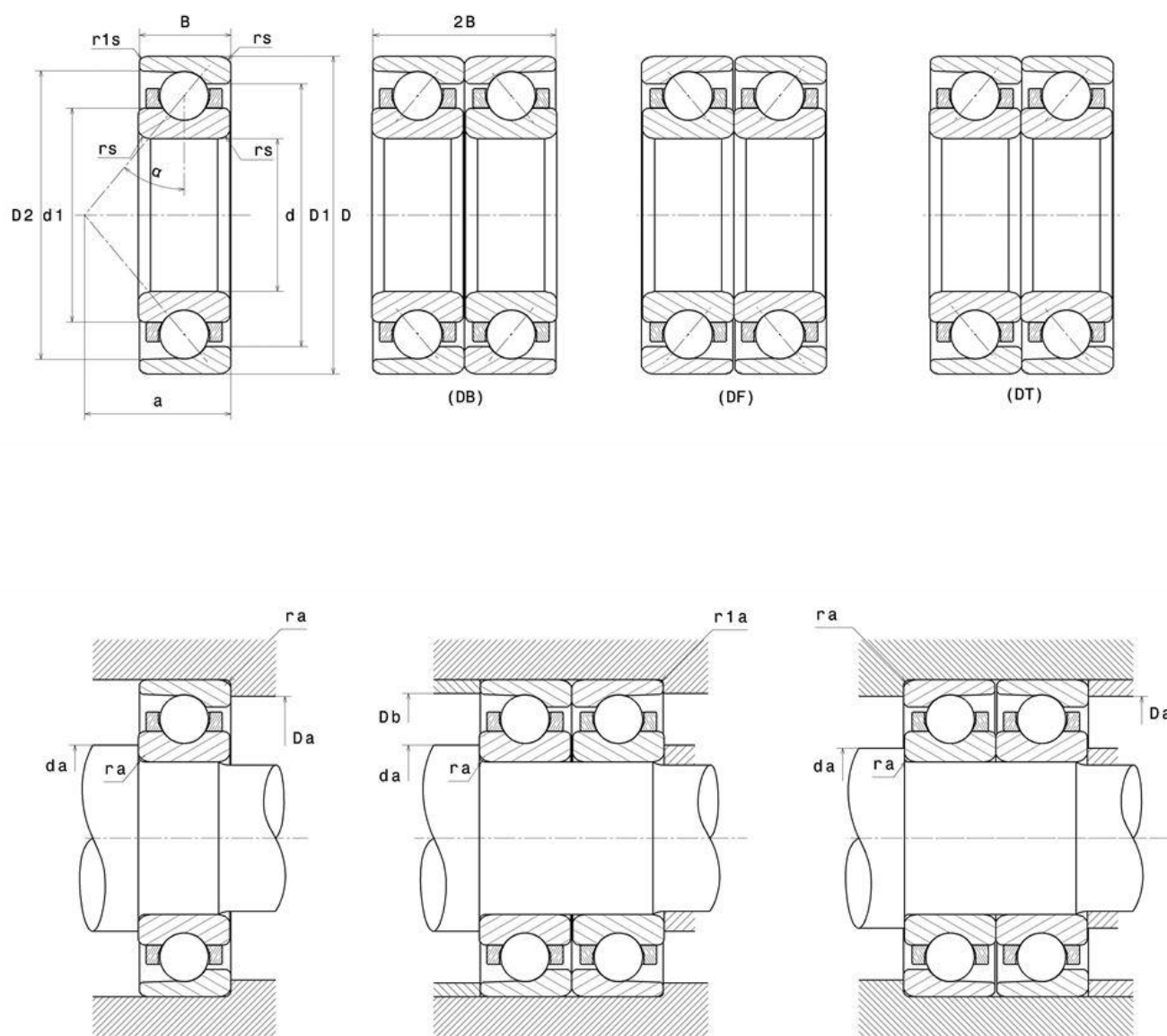
## Technical data

### 7409BG

Single row or matched pairs of angular contact ball bearings

Angular contact ball bearing, brass cage inner ring guided

## VISUAL (S)



# 7409BG

Single row or matched pairs of angular contact ball bearings

## PRODUCT DEFINITION

|                                     |         |
|-------------------------------------|---------|
| <b>Brand</b>                        | NTN     |
| <b>d - Internal diameter</b>        | 45 mm   |
| <b>D - External diameter</b>        | 120 mm  |
| <b>B - Bearing/Inner ring width</b> | 29 mm   |
| <b>- Contact angle</b>              | 40 °    |
| <b>rs - Min fillet radius</b>       | 2 mm    |
| <b>r1s - Min fillet radius</b>      | 1 mm    |
| <b>Radial clearance class</b>       | CN      |
| <b>Mass</b>                         | 1,49 kg |

## PRODUCT PERFORMANCE

|                                         |             |
|-----------------------------------------|-------------|
| <b>C - Dynamic load</b>                 | 74700000 mN |
| <b>C0 - Static load</b>                 | 49200000 mN |
| <b>Cu - Fatigue limit load</b>          | 2240000 mN  |
| <b>Tmin - Min operating temperature</b> | 233,15 °K   |
| <b>Tmax - Max operating temperature</b> | 393,15 °K   |

## ABUTMENT

|                                                       |          |
|-------------------------------------------------------|----------|
| <b>da min - Min shoulder diameter IR</b>              | 265 mm   |
| <b>Da max - Max shoulder diameter OR</b>              | 110 mm   |
| <b>Db max - Max OR shoulder diameter</b>              | 114,5 mm |
| <b>r1a - Max fillet radius</b>                        | 1 mm     |
| <b>ra max - Max shaft &amp; housing fillet radius</b> | 1 mm     |



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INDUSTRY CALCUL 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  $P_0 = F_r$