



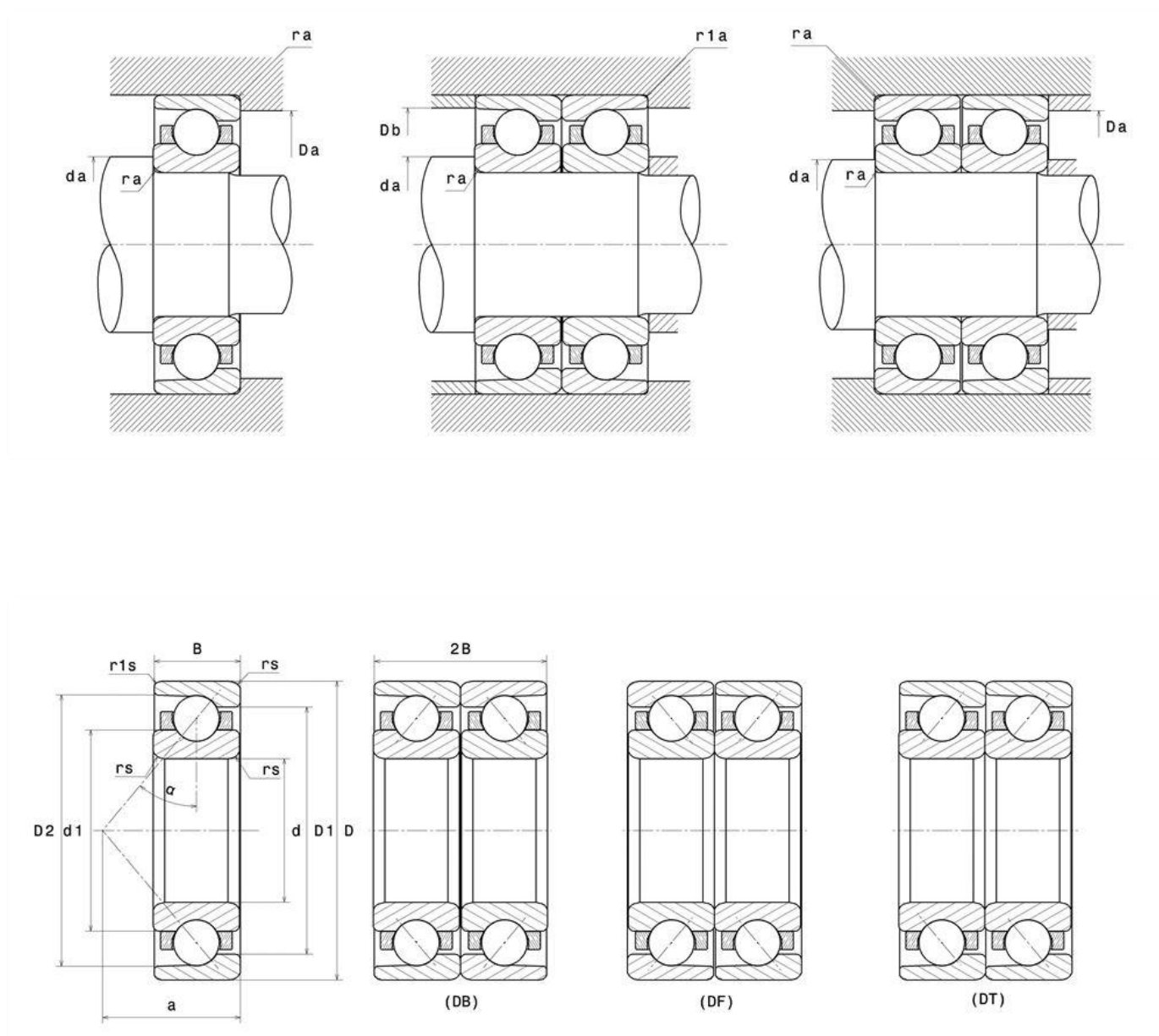
## Technical data

### 7414BG

Single row or matched pairs of angular contact ball bearings

Angular contact ball bearing, brass cage inner ring guided

#### VISUAL (S)



# 7414BG

Single row or matched pairs of angular contact ball bearings

## PRODUCT DEFINITION

|                              |        |
|------------------------------|--------|
| Brand                        | NTN    |
| d - Internal diameter        | 70 mm  |
| D - External diameter        | 180 mm |
| B - Bearing/Inner ring width | 42 mm  |
| - Contact angle              | 40 °   |
| rs - Min fillet radius       | 3 mm   |
| r1s - Min fillet radius      | 1,1 mm |
| Radial clearance class       | CN     |
| Mass                         | 5,7 kg |

## PRODUCT PERFORMANCE

|                                  |              |
|----------------------------------|--------------|
| C - Dynamic load                 | 139000000 mN |
| C0 - Static load                 | 109000000 mN |
| Cu - Fatigue limit load          | 4450000 mN   |
| Tmin - Min operating temperature | 233,15 °K    |
| Tmax - Max operating temperature | 393,15 °K    |

## ABUTMENT

|                                            |        |
|--------------------------------------------|--------|
| da min - Min shoulder diameter IR          | 402 mm |
| Da max - Max shoulder diameter OR          | 166 mm |
| Db max - Max OR shoulder diameter          | 173 mm |
| r1a - Max fillet radius                    | 1 mm   |
| ra max - Max shaft & housing fillet radius | 2,5 mm |



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SIRET 325 821 072 00015 · Code APE 2815 Z · Code NACE 28.15

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  $P_0 = F_r$