



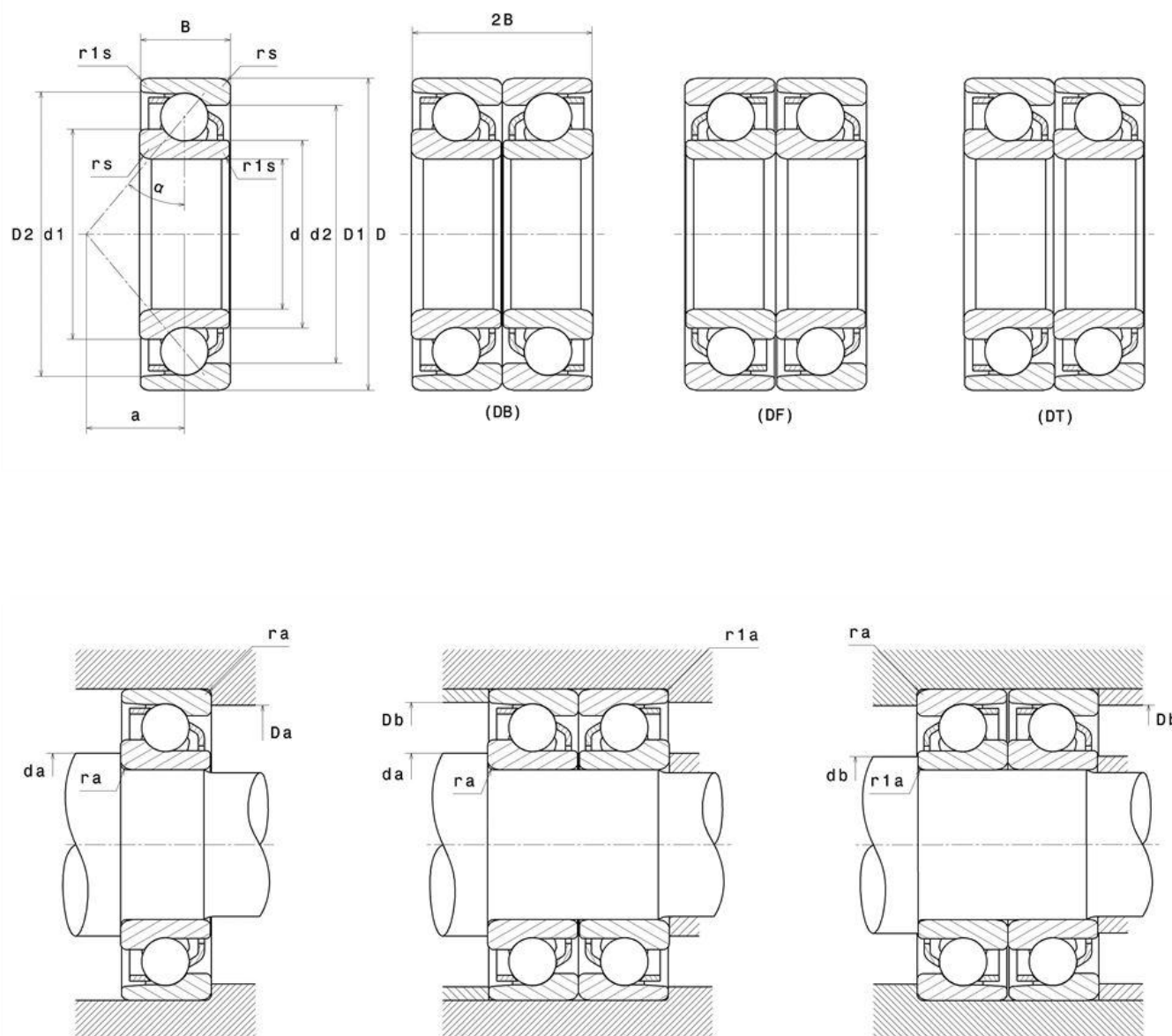
## Technical data

### 7305B

Single row or matched pairs of angular contact ball bearings

Angular contact ball bearings, pressed steel cage

## VISUAL (S)



# 7305B

Single row or matched pairs of angular contact ball bearings

## PRODUCT DEFINITION

|                                   |          |
|-----------------------------------|----------|
| Brand                             | NTN      |
| d - Internal diameter             | 25 mm    |
| D - External diameter             | 62 mm    |
| B - Bearing/Inner ring width      | 17 mm    |
| a - Charge load application point | 27 mm    |
| - Contact angle                   | 40 °     |
| rs - Min fillet radius            | 1,1 mm   |
| r1s - Min fillet radius           | 0,6 mm   |
| Radial clearance class            | CN       |
| Mass                              | 0,234 kg |

## PRODUCT PERFORMANCE

|                                        |             |
|----------------------------------------|-------------|
| C - Dynamic load                       | 27000000 mN |
| C0 - Static load                       | 14600000 mN |
| Cu - Fatigue limit load                | 1140000 mN  |
| N lim - Oil lubrication limit speed    | 90000 °/s   |
| N lim - Grease lubrication limit speed | 66000 °/s   |
| Tmin - Min operating temperature       | 233,15 °K   |
| Tmax - Max operating temperature       | 393,15 °K   |

## ABUTMENT

|                                   |         |
|-----------------------------------|---------|
| da min - Min shoulder diameter IR | 32 mm   |
| db min - Min IR shoulder diameter | 29,5 mm |
| Da max - Max shoulder diameter OR | 55 mm   |
| Db max - Max OR shoulder diameter | 57,5 mm |



**NTN Europe**

1 rue des Usines · BP 2017 · 74010 Annecy Cedex · France · Tel. +33 (0)4 50 65 30 00  
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SIRET 325 821 072 00015 · Code APE 2815 Z · Code NACE 28.15

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## ABUTMENT

|                                                       |        |
|-------------------------------------------------------|--------|
| <b>r1a - Max fillet radius</b>                        | 0,6 mm |
| <b>ra max - Max shaft &amp; housing fillet radius</b> | 1 mm   |

## 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  $P_0 = F_r$



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