

## NCF 3004 CV

Single row full complement cylindrical roller bearings are designed to accommodate very high radial loads in combination with moderate speeds. The bearings incorporate a maximum number of rollers as they are not equipped with a cage. Having two integral flanges on the inner ring and one flange on the outer ring, NCF design bearings can accommodate axial displacement in one direction. A retaining ring on the outer ring holds the bearing together. The retaining ring should not be loaded axially during operation.



- Very high radial load carrying capacity
- High radial stiffness
- Long service life
- Locate the shaft axially in one direction



| Dimensions                                                                                             |             |                                                                                                   |
|--------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------|
| d                                                                                                      | 20 mm       | Bore diameter                                                                                     |
| D                                                                                                      | 42 mm       | Outside diameter                                                                                  |
| B                                                                                                      | 16 mm       | Width                                                                                             |
| d <sub>1</sub>                                                                                         | ≈ 29 mm     | Shoulder diameter inner ring                                                                      |
| D <sub>1</sub>                                                                                         | ≈ 33 mm     | Shoulder diameter outer ring                                                                      |
| E                                                                                                      | 36.81 mm    | Raceway diameter outer ring                                                                       |
| s                                                                                                      | max. 1.5 mm | Permissible axial displacement from the normal position of one bearing ring relative to the other |
| r <sub>1,2</sub>                                                                                       | min. 0.6 mm | Chamfer dimension                                                                                 |
| r <sub>3,4</sub>                                                                                       | min. 0.3 mm | Chamfer dimension                                                                                 |
| Parameter r <sub>3,4</sub> has either the value specified here or the same value as r <sub>1,2</sub> . |             |                                                                                                   |



### Abutment dimensions

|          |             |                           |
|----------|-------------|---------------------------|
| $d_a$    | min. 24 mm  | Abutment diameter shaft   |
| $d_{as}$ | 26.9 mm     | Abutment diameter shaft   |
| $D_a$    | max. 38 mm  | Abutment diameter housing |
| $D_b$    | max. 39 mm  | Abutment diameter housing |
| $r_a$    | max. 0.6 mm | Fillet radius             |
| $r_b$    | max. 0.3 mm | Fillet radius             |

### Calculation data

|                           |       |              |
|---------------------------|-------|--------------|
| Basic dynamic load rating | C     | 28.1 kN      |
| Basic static load rating  | $C_0$ | 28.5 kN      |
| Fatigue load limit        | $P_u$ | 3.1 kN       |
| Reference speed           |       | 8 500 r/min  |
| Limiting speed            |       | 10 000 r/min |
| Calculation factor        | $k_r$ | 0.3          |
| Limiting value            | e     | 0.3          |
| Calculation factor        | Y     | 0.4          |

### Tolerances and clearances

### GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal
- Radial internal clearance: table

### BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit