

# NCF 2948 CV



## Single row full complement cylindrical roller bearing, NCF design

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

## Overview

### Dimensions

Bore diameter	240 mm
Outside diameter	320 mm
Width	48 mm

### Performance

Basic dynamic load rating	583 kN
Basic static load rating	1 140 kN
Reference speed	850 r/min
Limiting speed	1 100 r/min

### Properties

Bearing part	Complete bearing
Axial displacement capability	In one direction
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Without
Design	Non-separable
Number of flanges, outer ring	1
Number of flanges, inner ring	2
Loose flange	None
Radial internal clearance	CN
Coating	Without
Sealing	Without

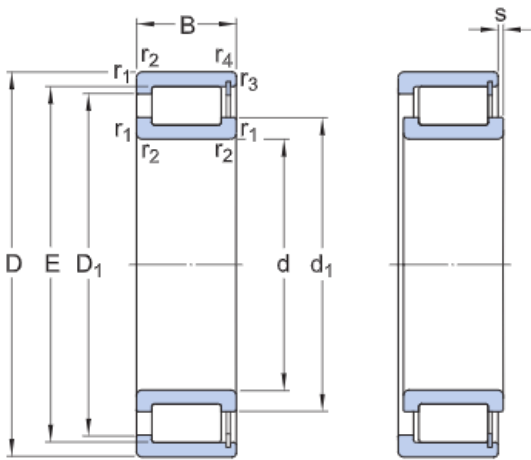
Lubricant

None

Relubrication feature

Without

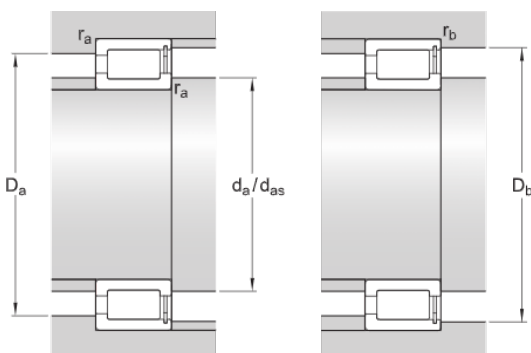
# Technical Specification



## Dimensions

d	240 mm	Bore diameter
D	320 mm	Outside diameter
B	48 mm	Width
$d_1$	≈ 267 mm	Shoulder diameter inner ring
$D_1$	≈ 294 mm	Shoulder diameter outer ring
E	303 mm	Raceway diameter outer ring
s	max. 3 mm	Permissible axial displacement from the normal position of one bearing ring relative to the other
$r_{1,2}$	min. 2.1 mm	Chamfer dimension
$r_{3,4}$	min. 1.5 mm	Chamfer dimension

## Abutment dimensions



$d_a$	min. 251 mm	Abutment diameter shaft
$d_{a\epsilon}$	263 mm	Abutment diameter shaft
$D_a$	max. 309 mm	Abutment diameter housing
$D_b$	max. 311 mm	Abutment diameter housing
$r_a$	max. 2 mm	Fillet radius
$r_b$	max. 1.5 mm	Fillet radius

## Calculation data

Basic dynamic load rating	C	583 kN
Basic static load rating	$C_0$	1 140 kN
Fatigue load limit	$P_u$	114 kN
Reference speed		850 r/min
Limiting speed		1 100 r/min
Calculation factor	$k_r$	0.2
Limiting value	e	0.3
Calculation factor	Y	0.4

## Mass

Mass bearing		10.4 kg
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