

NCF 3011 CV/C3



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

Bore diameter	d	55 mm
Outside diameter	D	90 mm
Width	B	26 mm
Shoulder diameter inner ring	d ₁	≈ 68 mm
Shoulder diameter outer ring	D ₁	≈ 79 mm
Raceway diameter outer ring	E	83.54 mm
Raceway diameter inner ring	F	63.54 mm
Permissible axial displacement from the normal position of one bearing ring relative to the other	s	max. 2 mm
Chamfer dimension	r _{1,2}	min. 1.1 mm
Chamfer dimension	r _{3,4}	min. 0.6 mm

Parameter r_{3,4} has either the value specified here or the same value as r_{1,2}.

Abutment dimensions

Abutment diameter shaft	d_a	min. 62 mm
Abutment diameter housing	D_a	max. 84 mm
Fillet radius	r_a	max. 1 mm
Fillet radius	r_b	max. 0.6 mm

Calculation data

Basic dynamic load rating	C	105 kN
Basic static load rating	C_0	140 kN
Fatigue load limit	P_u	17.3 kN
Reference speed		3 400 r/min
Limiting speed		4 300 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