

NCF 2938 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	190 mm
Outside diameter	260 mm
Width	42 mm

Performance

Basic dynamic load rating	440 kN
Basic static load rating	780 kN
Reference speed	1 100 r/min
Limiting speed	1 400 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

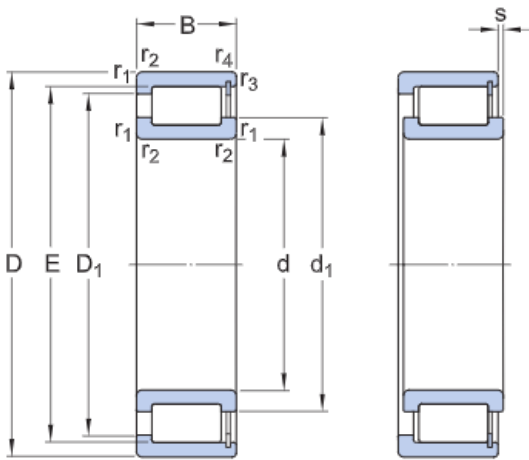
Lubricant

None

Relubrication feature

Without

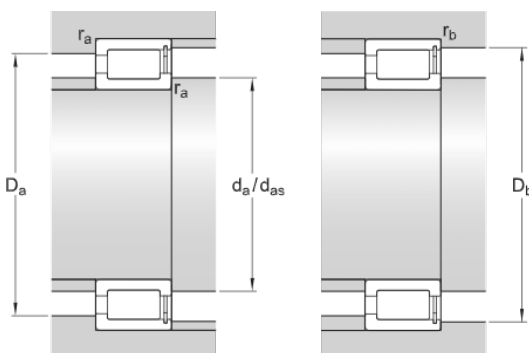
Technical Specification



Dimensions

d	190 mm	Bore diameter
D	260 mm	Outside diameter
B	42 mm	Width
d ₁	≈ 212 mm	Shoulder diameter inner ring
D ₁	≈ 236 mm	Shoulder diameter outer ring
E	244 mm	Raceway diameter outer ring
s	max. 2 mm	Permissible axial displacement from the normal position of one bearing ring relative to the other
r _{1,2}	min. 2 mm	Chamfer dimension
r _{3,4}	min. 1.1 mm	Chamfer dimension

Abutment dimensions



d _a	min. 199 mm	Abutment diameter shaft
d _{aε}	208 mm	Abutment diameter shaft
D _a	max. 250 mm	Abutment diameter housing
D _b	max. 252 mm	Abutment diameter housing
r _a	max. 2 mm	Fillet radius
r _b	max. 1 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	440 kN
Basic static load rating	C_0	780 kN
Fatigue load limit	P_u	81.5 kN
Reference speed		1 100 r/min
Limiting speed		1 400 r/min
Calculation factor	k_r	0.2
Limiting value	e	0.3
Calculation factor	Y	0.4

Mass

Mass bearing		6.4 kg
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