

NCF 2924 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	120 mm
Outside diameter	165 mm
Width	27 mm

Performance

Basic dynamic load rating	172 kN
Basic static load rating	290 kN
Reference speed	1 800 r/min
Limiting speed	2 200 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

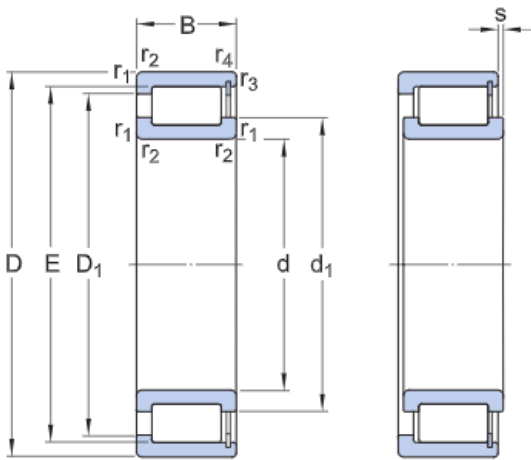
Lubricant

None

Relubrication feature

Without

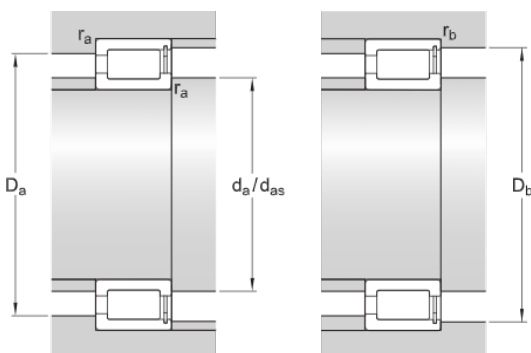
Technical Specification



Dimensions

d	120 mm	Bore diameter
D	165 mm	Outside diameter
B	27 mm	Width
d ₁	≈ 136 mm	Shoulder diameter inner ring
D ₁	≈ 149 mm	Shoulder diameter outer ring
E	154.3 mm	Raceway diameter outer ring
s	max. 1.3 mm	Permissible axial displacement from the normal position of one bearing ring relative to the other
r _{1,2}	min. 1.1 mm	Chamfer dimension
r _{3,4}	min. 1 mm	Chamfer dimension

Abutment dimensions



d _a	min. 126 mm	Abutment diameter shaft
d _{aε}	133 mm	Abutment diameter shaft
D _a	max. 159 mm	Abutment diameter housing
D _b	max. 159 mm	Abutment diameter housing
r _a	max. 1 mm	Fillet radius
r _b	max. 1 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	172 kN
Basic static load rating	C_0	290 kN
Fatigue load limit	P_u	34 kN
Reference speed		1 800 r/min
Limiting speed		2 200 r/min
Calculation factor	k_r	0.2
Limiting value	e	0.3
Calculation factor	Y	0.4

Mass

Mass bearing		1.73 kg
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