NU 312 ECM/HC5C3

Hybrid single row cylindrical roller bearing, NU design

Hybrid single row cylindrical roller bearings are designed to accommodate high radial loads in combination with high speeds. With rings made of bearing steel and rollers made of bearing grade silicon nitride, the bearings are electrically insulating. The ceramic rollers not only protect against electric current damage, but also extend bearing service life by offering enhanced bearing performance, even under difficult operating conditions. Having two integral flanges on the outer ring and no flanges on the inner ring, NU design bearings can accommodate axial displacement in both directions. The separable design facilitates mounting and enables the bearing components to be interchanged.

- High radial load carrying capacity
- Protected against electric current damage
- Low friction and long service life
- Accommodate axial displacement in both directions
- Separable design

Overview

Dimensions

Bore diameter	60 mm
Outside diameter	130 mm
Width	31 mm

Performance

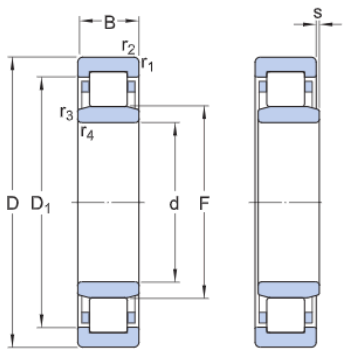
Basic dynamic load rating	151 kN
Basic static load rating	160 kN
Reference speed	5 000 r/min
Limiting speed	8 000 r/min

Properties

Bearing part	Complete bearing
Axial displacement capability	In both directions
Number of rows	1
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Machined metal
Number of flanges, outer ring	2
Number of flanges, inner ring	0
Loose flange	None
Radial internal clearance	C3
Material, bearing	Hybrid
Coating	Without

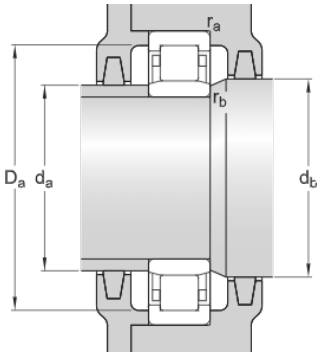
Sealing	Without
Lubricant	None
Relubrication feature	Without

Technical Specification



Dimensions

d	60 mm	Bore diameter
D	130 mm	Outside diameter
B	31 mm	Width
D_1	≈ 110 mm	Shoulder diameter outer ring
F	77 mm	Raceway diameter inner ring
s	max. 2.1 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. 2.1 mm	Chamfer dimension



Abutment dimensions

d_a	min. 72 mm	Abutment diameter shaft
d_a	max. 74 mm	Abutment diameter shaft
d_b	min. 79 mm	Abutment diameter shaft
D_a	max. 118.1 mm	Abutment diameter housing
r_a	max. 2 mm	Fillet radius
r_b	max. 2 mm	Fillet radius

Calculation data

Basic dynamic load rating	C	151 kN

Basic static load rating	C_0	160 kN
Fatigue load limit	P_u	18 kN
Reference speed		5 000 r/min
Limiting speed		8 000 r/min
Calculation factor	k_r	0.15

Mass

Mass bearing	1.43 kg

Terms and conditions

By accessing and using this website / app owned and published by AB SKF (publ.) (556007-3495 · Gothenburg) ("SKF"), you agree to the following terms and conditions:

Warranty Disclaimer and Limitation of Liability

Although every care has been taken to assure the accuracy of the information on this website / app, SKF provides this information "AS IS" and DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. You acknowledge that your use of this website / app is at your sole risk, that you assume full responsibility for all costs associated with use of this website / app, and that SKF shall not be liable for any direct, incidental, consequential, or indirect damages of any kind arising out of your access to, or use of the information or software made available on this website / app. Any warranties and representations in this website / app for SKF products or services that you purchase or use will be subject to the agreed upon terms and conditions in the contract for such product or service. Further, for non-SKF websites / apps that are referenced in our website / app or where a hyperlink appears, SKF makes no warranties concerning the accuracy or reliability of the information in these websites / apps and assumes no responsibility for material created or published by third parties contained therein. In addition, SKF does not warrant that this website / app or these other linked websites / apps are free from viruses or other harmful elements.

Third Party Services

When viewing YouTube content via the SKF website(s) (i.e. using YouTube API Services), you agree to be bound by the YouTube Terms of Service.

Copyright

Trademarks and Patents

Changes

SKF reserves the right to make changes or additions to this website / app at any time.