



SKF® NN 3013 TN/SPW33 Super-precision double row cylindrical roller bearing with lubrication feature

Super-precision double row cylindrical roller bearing with lubrication feature

Super-precision double row cylindrical roller bearings in the NN 30 series provide a unique balance between load carrying capacity, rigidity and speed. Having three flanges on the inner ring and no flanges on the outer ring, the bearings can accommodate axial displacement in both directions. The separable design simplifies mounting and dismounting, particularly when load conditions require both rings to have an interference fit.

- Very high radial load carrying capacity
- High rigidity and high running accuracy
- Minimize noise, vibration and heat generation
- Accommodate axial displacement in both directions
- Lubrication feature

Overview

Dimensions

| | |
|------------------|--------|
| Bore diameter | 65 mm |
| Outside diameter | 100 mm |
| Width | 26 mm |

Performance

| | |
|--|--------------|
| Basic dynamic load rating | 76.5 kN |
| Basic static load rating | 116 kN |
| Attainable speed for grease lubrication | 9 000 r/min |
| Attainable speed for oil-air lubrication | 10 000 r/min |

Properties

| | |
|-------------------------------|------------------|
| Bearing part | Complete bearing |
| Number of rows | 2 |
| Bore type | Cylindrical |
| Cage | Non-metallic |
| Design | NN |
| Number of flanges, outer ring | 0 |
| Number of flanges, inner ring | 3 |
| Loose flange | None |
| Radial internal | C1 |

clearance

Tolerance class

Class SP (SP)

Material, bearing

Bearing steel

Coating

Without

Sealing

Without

Lubricant

None

Relubrication
feature

Annular groove and lubrication
holes

Technical Specification

Bore type

Cylindrical

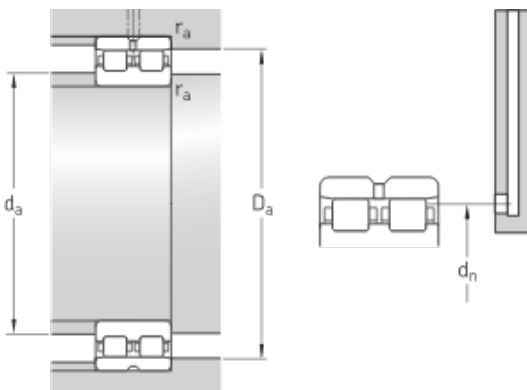


Dimensions

| | | |
|-----------|-------------|---|
| d | 65 mm | Bore diameter |
| D | 100 mm | Outside diameter |
| B | 26 mm | Width |
| d_1 | 78.2 mm | Shoulder diameter inner ring (NN design) |
| E | 91 mm | Raceway diameter outer ring (NN design) |
| b | 3.8 mm | Width annular lubrication groove at outer ring |
| K | 2 mm | Diameter lubrication hole (outer ring) |
| $r_{1,2}$ | min. 1.1 mm | Chamfer dimension outer ring |
| s | max. 1.5 mm | Permissible axial displacement from the normal position of one bearing ring relative to the other (all) |

Abutment dimensions

| | | |
|-------|--------------|--|
| d_a | min. 71.5 mm | Abutment diameter shaft |
| D_a | min. 92 mm | Abutment diameter housing |
| D_a | max. 93.5 mm | Abutment diameter housing |
| r_a | max. 1 mm | Fillet radius |
| d_n | 89.7 mm | Oil nozzle position (not for variants with |



TNHA cage)

Calculation data

| | | |
|---|-----------|---------------------|
| Basic dynamic load rating | C | 76.5 kN |
| Basic static load rating | C_0 | 116 kN |
| Fatigue load limit | P_u | 13.7 kN |
| Attainable speed for grease lubrication | | 9 000 r/min |
| Attainable speed for oil-air lubrication | | 10 000 r/min |
| Reference grease quantity | G_{ref} | 4.1 cm ³ |
| Static radial stiffness (guideline value) | | 1 450 N/μm |

Mass

| | | |
|--------------|--|--------|
| Mass bearing | | 0.7 kg |
|--------------|--|--------|

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