



## SKF NN 3018 KTN9/SP

Super-precision double row cylindrical roller bearing with tapered bore

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. The tapered bore enables accurate adjustment of clearance or preload during mounting.

### Technical specifications

| General                                                                                                 |                      |
|---------------------------------------------------------------------------------------------------------|----------------------|
| Bore type                                                                                               | Tapered 1:12         |
| Dimensions                                                                                              |                      |
| Bore diameter                                                                                           | 90 mm                |
| Outside diameter                                                                                        | 140 mm               |
| Width                                                                                                   | 37 mm                |
| Shoulder diameter inner ring (NN design)                                                                | 109.4 mm             |
| Raceway diameter outer ring (NN design)                                                                 | 127 mm               |
| Chamfer dimension outer ring                                                                            | 1.5 mm               |
| Chamfer dimension inner ring (bearing with tapered bore)                                                | 1 mm                 |
| Permissible axial displacement from the normal position of one bearing ring relative to the other (all) | 2 mm                 |
| Abutment dimensions                                                                                     |                      |
| Abutment diameter shaft                                                                                 | 98 mm                |
| Abutment diameter housing                                                                               | 129 mm               |
| Abutment diameter housing                                                                               | 132 mm               |
| Fillet radius                                                                                           | 1.5 mm               |
| Oil nozzle position (not for variants with TNHA cage)                                                   | 125.2 mm             |
| Calculation data                                                                                        |                      |
| Basic dynamic load rating                                                                               | 138 kN               |
| Basic static load rating                                                                                | 216 kN               |
| Fatigue load limit                                                                                      | 26 kN                |
| Attainable speed for grease lubrication                                                                 | 6300 r/min           |
| Attainable speed for oil-air lubrication                                                                | 7000 r/min           |
| Reference grease quantity                                                                               | 11.1 cm <sup>3</sup> |
| Static radial stiffness (guideline value)                                                               | 2010 N/μm            |
| Performance                                                                                             |                      |
| Basic dynamic load rating                                                                               | 138 kN               |
| Basic static load rating                                                                                | 216 kN               |
| Attainable speed for grease lubrication                                                                 | 6300 r/min           |
| Attainable speed for oil-air lubrication                                                                | 7000 r/min           |
| Properties                                                                                              |                      |
| Bearing part                                                                                            | Complete bearing     |
| Number of rows                                                                                          | 2                    |
| Bore type                                                                                               | Tapered 1:12         |
| Cage                                                                                                    | Non-metallic         |
| Design                                                                                                  | NN                   |
| Number of flanges, outer ring                                                                           | 0                    |
| Number of flanges, inner ring                                                                           | 3                    |
| Loose flange                                                                                            | None                 |
| Radial internal clearance                                                                               | C1                   |
| Tolerance class                                                                                         | Class SP (SP)        |
| Material, bearing                                                                                       | Bearing steel        |

|                                             |                          |
|---------------------------------------------|--------------------------|
| Coating                                     | Without                  |
| Sealing                                     | Without                  |
| Lubricant                                   | None                     |
| Relubrication feature                       | Without                  |
| Indicative carbon footprint for new product | 6.9 kg CO <sub>2</sub> e |

| Logistics          |             |
|--------------------|-------------|
| Product net weight | 1.91 kg     |
| eClass code        | 23-05-09-01 |
| UNSPSC code        | 31171505    |

**SKF drawings**