



SKF NN 3011 KTN/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	55 mm
Outside diameter	90 mm
Width	26 mm
Shoulder diameter inner ring (NN design)	68.2 mm
Raceway diameter outer ring (NN design)	81 mm
Chamfer dimension outer ring	1.1 mm
Chamfer dimension inner ring (bearing with tapered bore)	0.6 mm
Permissible axial displacement from the normal position of one bearing ring relative to the other (all)	1.5 mm
Abutment dimensions	
Abutment diameter shaft	61.5 mm
Abutment diameter housing	82 mm
Abutment diameter housing	83.5 mm
Fillet radius	1 mm
Oil nozzle position (not for variants with TNHA cage)	79.7 mm
Calculation data	
Basic dynamic load rating	69.3 kN
Basic static load rating	96.5 kN
Fatigue load limit	11.6 kN
Attainable speed for grease lubrication	10000 r/min
Attainable speed for oil-air lubrication	12000 r/min
Reference grease quantity	3.6 cm ³
Static radial stiffness (guideline value)	1220 N/μm
Performance	
Basic dynamic load rating	69.3 kN
Basic static load rating	96.5 kN
Attainable speed for grease lubrication	10000 r/min
Attainable speed for oil-air lubrication	12000 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	2.1 kg CO ₂ e

Logistics	
Product net weight	0.579 kg
eClass code	23-05-09-01
UNSPSC code	31171505

SKF drawings