



SKF NN 3024 KTN9/SPW33

Super-precision double row cylindrical roller bearing with tapered bore and lubrication

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	120 mm
Outside diameter	180 mm
Width	46 mm
Shoulder diameter inner ring (NN design)	142.6 mm
Raceway diameter outer ring (NN design)	165 mm
Width annular lubrication groove at outer ring	5.5 mm
Diameter lubrication hole (outer ring)	3 mm
Chamfer dimension outer ring	2 mm
Chamfer dimension inner ring (bearing with tapered bore)	1.1 mm
Permissible axial displacement from the normal position of one bearing ring relative to the other (all)	3 mm
Abutment dimensions	
Abutment diameter shaft	130 mm
Abutment diameter housing	167 mm
Abutment diameter housing	170 mm
Fillet radius	2 mm
Oil nozzle position (not for variants with TNHA cage)	162.7 mm
Calculation data	
Basic dynamic load rating	229 kN
Basic static load rating	390 kN
Fatigue load limit	44 kN
Attainable speed for grease lubrication	4800 r/min
Attainable speed for oil-air lubrication	5300 r/min
Reference grease quantity	23.1 cm ³
Static radial stiffness (guideline value)	2760 N/μm
Performance	
Basic dynamic load rating	229 kN
Basic static load rating	390 kN
Attainable speed for grease lubrication	4800 r/min
Attainable speed for oil-air lubrication	5300 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	Annular groove and lubrication holes
Indicative carbon footprint for new product	13.2 kg CO ₂ e

Logistics	
Product net weight	3.67 kg
eClass code	23-05-09-01
UNSPSC code	31171505

SKF drawings