

# NKE 6307-N deep groove ball bearings

Various 100x70x16 Size (mm) types and sizes to 70 Outer Diameter (mm) accommodate your NKE 6307-N deep groove ball bearings requirements.

Size (mm)	100x70x16
Bore Diameter (mm)	100
Outer Diameter (mm)	70
Width (mm)	16
d	70 mm
D	100 mm
B	16 mm
d1	80.94 mm
d2	79.55 mm
D2	91.66 mm
r1,2 – min.	1 mm
r3,4 – min.	0.3 mm
a	31.2 mm
da – min.	74.6 mm
db – min.	74.6 mm
Da – max.	95.4 mm
Db – max.	98 mm
ra – max.	1 mm
rb – max.	0.3 mm
dn	81.9 mm
Basic dynamic load rating – C	12.7 kN
Basic static load rating – C0	11.6 kN

Fatigue load limit – Pu	0.49 kN
Limiting speed for grease lubrication	16000 r/min
Limiting speed for oil lubrication	24000 mm/min
Ball – Dw	6.35 mm
Ball – z	32
Gref	4.49 cm <sup>3</sup>
Calculation factor – e	0.68
Calculation factor – Y2	1.41
Calculation factor – Y0	0.76
Calculation factor – X2	0.67
Calculation factor – Y1	0.92
Preload class A – GA	75 N
Preload class B – GB	150 N
Preload class C – GC	450 N
Calculation factor – f	1.1
Calculation factor – f1	0.99
Calculation factor – f2A	1
Calculation factor – f2B	1.02
Calculation factor – f2C	1.07
Calculation factor – fHC	1
Preload class A	112 N/micron
Preload class B	144 N/micron
Preload class C	218 N/micron
r1,2 min.	1 mm
r3,4 min.	0.3 mm
da min.	74.6 mm
db min.	74.6 mm
Da max.	95.4 mm
Db max.	98 mm

ra max.	1 mm
rb max.	0.3 mm
Basic dynamic load rating C	17.4 kN
Basic static load rating C0	18.6 kN
Fatigue load limit Pu	0.49 kN
Attainable speed for grease lubrication	16000 r/min
Attainable speed for oil-air lubrication	24000 r/min
Ball diameter Dw	6.35 mm
Number of balls z	32
Reference grease quantity Gref	4.49 cm <sup>3</sup>
Preload class A GA	75 N
Static axial stiffness, preload class A	112 N/μm
Preload class B GB	150 N
Static axial stiffness, preload class B	144 N/μm
Preload class C GC	450 N
Static axial stiffness, preload class C	218 N/μm
Calculation factor f	1.1
Calculation factor f1	0.99
Calculation factor f2A	1
Calculation factor f2B	1.02
Calculation factor f2C	1.07
Calculation factor fHC	1
Calculation factor e	0.68
Calculation factor (single, tandem) Y2	0.87
Calculation factor (single, tandem) Y0	0.38
Calculation factor (single, tandem) X2	0.41
Calculation factor (back-to-back, face-to-face) Y1	0.92

Calculation factor (back-to-back, face-to-face) Y2	1.41
Calculation factor (back-to-back, face-to-face) Y0	0.76
Calculation factor (back-to-back, face-to-face) X2	0.67
Mass bearing	0.35 kg