

NUP 311 ECP

Single row cylindrical roller bearings are designed to accommodate high radial loads in combination with high speeds. Having two integral flanges on the outer ring and one integral flange and one loose flange ring on the inner ring, NUP design bearings can locate the shaft axially in both directions. An important feature is the separable design, which facilitates mounting and enables the bearing components to be interchanged.



- High radial load carrying capacity
- Low friction
- Long service life
- Locate the shaft axially in both directions
- Separable design



Dimensions		
d	55 mm	Bore diameter
D	120 mm	Outside diameter
B	29 mm	Width
d ₁	≈ 77.5 mm	Shoulder diameter of inner ring
D ₁	≈ 100.3 mm	Shoulder diameter of outer ring
F	70.5 mm	Raceway diameter of inner ring
r _{1,2}	min. 2 mm	Chamfer dimension
r _{3,4}	min. 2 mm	Chamfer dimension of loose flange ring



Abutment dimensions		
d _a	min. 65 mm	Diameter of spacer sleeve
d _b	min. 80 mm	Diameter of shaft abutment
D _a	max. 109.2 mm	Diameter of housing abutment
r _a	max. 2 mm	Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	156 kN
Basic static load rating	C ₀	143 kN
Fatigue load limit	P _u	18.6 kN
Reference speed		6 000 r/min
Limiting speed		7 000 r/min
Minimum load factor	k _r	0.15
Limiting value	e	0.2
Calculation factor	Y	0.6

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal (), P6, Normal (inch)
- Radial internal clearance: cylindrical bore, tapered bore
- Axial internal clearance: NUP, NJ + HJ

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit