

C 4024 V



CARB toroidal roller bearings are unique: as well as accommodating misalignment without increased stress levels, they also provide frictionless axial movement within the bearing in the non-locating position in self-aligning bearing arrangements. This full complement bearing, which has a lower speed rating, uses as many rollers as possible, giving it the highest possible load rating.

- Accommodate misalignment and axial displacement within the bearing
- Very high radial load carrying capacity
- Provide frictionless axial movement
- Long bearing system life

Bore type		Cylindrical																											
		<table><tr><th colspan="3">Dimensions</th></tr><tr><td>d</td><td>120 mm</td><td>Bore diameter</td></tr><tr><td>D</td><td>180 mm</td><td>Outside diameter</td></tr><tr><td>B</td><td>60 mm</td><td>Width</td></tr><tr><td>d₂</td><td>≈ 140 mm</td><td>Shoulder diameter of inner ring</td></tr><tr><td>D₁</td><td>≈ 164 mm</td><td>Shoulder or recess diameter of outer ring</td></tr><tr><td>s₁</td><td>max. 12 mm</td><td>Permissible axial displacement</td></tr><tr><td>s₂</td><td>max. 5.2 mm</td><td>Permissible axial displacement</td></tr><tr><td>r_{1,2}</td><td>min. 2 mm</td><td>Chamfer dimension</td></tr></table>	Dimensions			d	120 mm	Bore diameter	D	180 mm	Outside diameter	B	60 mm	Width	d ₂	≈ 140 mm	Shoulder diameter of inner ring	D ₁	≈ 164 mm	Shoulder or recess diameter of outer ring	s ₁	max. 12 mm	Permissible axial displacement	s ₂	max. 5.2 mm	Permissible axial displacement	r _{1,2}	min. 2 mm	Chamfer dimension
Dimensions																													
d	120 mm	Bore diameter																											
D	180 mm	Outside diameter																											
B	60 mm	Width																											
d ₂	≈ 140 mm	Shoulder diameter of inner ring																											
D ₁	≈ 164 mm	Shoulder or recess diameter of outer ring																											
s ₁	max. 12 mm	Permissible axial displacement																											
s ₂	max. 5.2 mm	Permissible axial displacement																											
r _{1,2}	min. 2 mm	Chamfer dimension																											

The diagram shows a cross-section of a bearing assembly. The outer ring is shown in a hatched state, indicating it is fixed. The inner ring is shown in a hatched state, indicating it is fixed. The dimensions are labeled as follows: r_a is the radius of the fillet at the top and bottom of the inner ring; d_a is the diameter of the shaft abutment; and D_a is the diameter of the housing abutment.

Abutment dimensions

d_a min. 130 mm Diameter of shaft abutment

d_a max. 152 mm Diameter of shaft abutment

D_a max. 170 mm Abutment diameter housing

r_a max. 2 mm Radius of fillet

Calculation data

AGA performance class		AGA Explorer
Basic dynamic load rating	C	530 kN
Basic static load rating	C ₀	880 kN
Fatigue load limit	P _u	91.5 kN
Limiting speed		1 100 r/min
Misalignment factor	k ₁	0.109
Internal clearance factor	k ₂	0.103

Tolerances and clearances

GENERAL BEARING SPECIFICATIONS

- Tolerances: Normal, P5, tapered bore 1:12, tapered bore 1:30
- Radial internal clearance: cylindrical bore, tapered bore

BEARING INTERFACES

- Seat tolerances for standard conditions
- Tolerances and resultant fit