

C 3096 KM/C4

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. Being NR Explorer bearings, they can accommodate higher load levels and provide significantly extended service life.



- Accommodate misalignment and axial displacement within the bearing
- High radial load carrying capacity
- Provide frictionless axial movement
- Long bearing system life
- Reduce noise and vibration levels

Bore type

Tapered 1:12



Dimensions		
d	480 mm	Bore diameter
D	700 mm	Outside diameter
B	165 mm	Width
d ₂	≈ 555 mm	Shoulder diameter of inner ring
D ₁	≈ 640 mm	Shoulder or recess diameter of outer ring
s ₁	max. 35.5 mm	Permissible axial displacement
r _{1,2}	min. 6 mm	Chamfer dimension



Abutment dimensions		
da	min. 493 mm	Diameter of shaft abutment
da	max. 586 mm	Diameter of shaft abutment
Da	min. 620 mm	Diameter of housing abutment
Da	max. 677 mm	Abutment diameter housing

C_a	min. 2.3 mm	Minimum width of space required in housing
r_a	max. 5 mm	Radius of fillet
A negative value for C_a is theoretical.		

Calculation data

AGA performance class	AGA Explorer	
Basic dynamic load rating	C	4 050 kN
Basic static load rating	C_0	7 800 kN
Fatigue load limit	P_u	530 kN
Reference speed		670 r/min
Limiting speed		900 r/min
Misalignment factor	k_1	0.113
Internal clearance factor	k_2	0.11

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