GAC 50 F

Angular contact spherical plain bearing, maintenance-free, metric sizes

Angular contact spherical plain bearings are designed to accommodate combined radial and axial loads. Single bearings can accommodate axial loads acting in one direction. This specific design includes a steel/PTFE FRP sliding contact surface combination that is maintenance-free. However, relubrication, which can be applied from both sides, can extend bearing service life.

- Designed for combined radial and axial loads
- Separable inner and outer rings enable easier mounting
- Long service life and maintenance-free
- Relatively insensitive to contaminants
- Low coefficient of friction

Overview

Dimensions

Bore diameter	50 mm
Outside diameter	80 mm
Width, inner ring	20 mm
Width, outer ring	19 mm

Properties

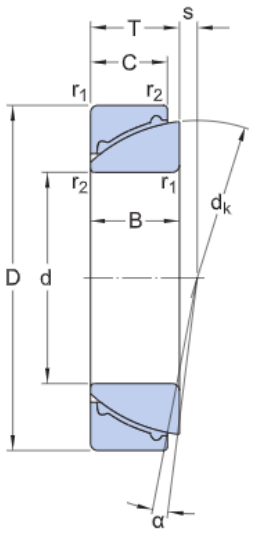
Maintenance	Maintenance-free
Material, inner ring	Bearing steel
Material, outer ring	Bearing steel
Relubrication feature	Without
Sealing	Without
Sliding contact surface combination	Steel/PTFE FRP

Performance

Basic dynamic load rating	58.5 kN
Basic static load rating	93 kN

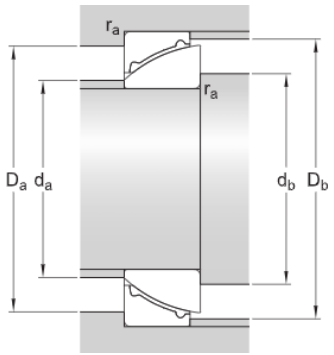
Technical Specification

Sliding contact surface combination	Steel/PTFE FRP
Material, inner ring	Bearing steel
Material, outer ring	Bearing steel
Relubrication feature	Without
Sealing	Without



Dimensions

d	50 mm	Bore diameter
D	80 mm	Outside diameter
T	20 mm	Width
α	1.6 °	Angle of tilt
d_k	74 mm	Raceway diameter inner ring
B	20 mm	Width inner ring
C	19 mm	Width outer ring
r_1	min. 1 mm	Chamfer dimension bore/large side face
r_2	min. 0.3 mm	Chamfer dimension bore/small side face
s	4.3 mm	Distance sphere diameter centre - large inner ring side face



Abutment dimensions

d_a	max. 56 mm	Abutment diameter shaft, small inner ring side face
d_b	max. 67 mm	Abutment diameter shaft, large inner ring side face
D_a	min. 60 mm	Abutment diameter housing, large outer ring side face
D_b	min. 74.5 mm	Abutment diameter housing, small outer ring side face

r_a	max. 1 mm	Fillet radius shaft, housing

Calculation data

Basic dynamic load rating	C	58.5 kN
Basic static load rating	C_0	93 kN
Specific dynamic load factor	K	50 N/mm
Specific static load factor	K_0	80 N/mm
Material constant	K_M	480

Mass

Mass plain bearing	0.46 kg

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