



PRODUCT DATASHEET

Datasheet creation date: 2025/06/02 9:57 (UTC)



7010A5

Standard Series High Precision Angular Contact Ball Bearings



Parts Number

7010A5TRV1VSUMP3

Boundary Dimensions

d	50	mm	Bore diameter
D	80	mm	Outside diameter
B	16	mm	Width
r(min.)	1	mm	Chamfer Dimension
r1(min.)	0.6	mm	Chamfer Dimension

Basic Load Ratings

Cr	25.8	kN	Basic Dynamic Load Rating
C0r	20.8	kN	Basic Static Load Rating

Speeds

Grease	15400	min-1	Limiting Speed
Oil (Oil-air)	23100	min-1	Limiting Speed

Dimensions

	A5: 25°		Contact Angle
a	23.2	mm	Effective Load Center

Abutment and Fillet Dimensions

da(min.)	56	mm	Diameter of Shaft Abutment
Da(max.)	74	mm	Diameter of Housing Abutment
Db(max.)	75	mm	Diameter of Housing Abutment
ra(max.)	1	mm	Radius of Shaft or Housing Fillet
rb(max.)	0.5	mm	Radius of Shaft or Housing Fillet

Performance

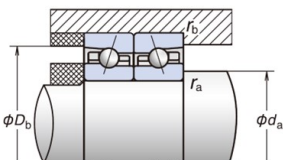
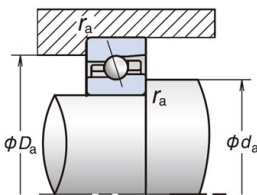
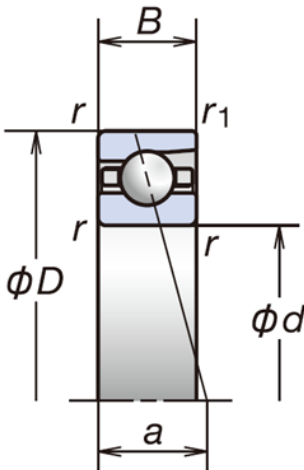
Pa	16.2	kN	Permissible Axial Load
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Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	125N	118N/μm	-3μm
L	262N	154N/μm	-7μm
M	580N	208N/μm	-14μm
H	1189N	278N/μm	-24μm

Additional information

1.5	g/brg	Recommended Grease Quantities
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Mass

0.270	kg	Mass(approx.)
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Table A		EL	L	M	H
	15°	6.5	6.0	5.0	4.5
	25°	2			
	30°	1.4			

Table B	DBD	DBB
Preload factor	1.36	2
Axial rigidity	1.48	2
Radial rigidity	1.54	2

Calculation of radial rigidity
Multiply axial rigidity by the appropriate factor in Table A.

Calculation of preload and axial rigidity for combined bearings

Multiply by the appropriate factor in Table B. For radial rigidity, multiply the value from Table A with the appropriate factor in Table B.