



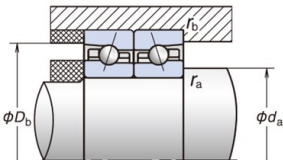
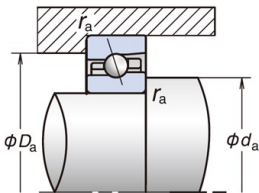
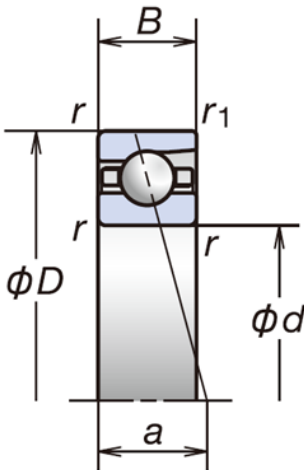
PRODUCT DATASHEET

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7003A5

Standard Series High Precision Angular Contact Ball Bearings



Boundary Dimensions

d	17	mm	Bore diameter
D	35	mm	Outside diameter
B	10	mm	Width
r(min.)	0.3	mm	Chamfer Dimension
r1(min.)	0.15	mm	Chamfer Dimension

Basic Load Ratings

Cr	7.95	kN	Basic Dynamic Load Rating
C0r	3.65	kN	Basic Static Load Rating

Speeds

Grease	38500	min-1	Limiting Speed
Oil (Oil-air)	57700	min-1	Limiting Speed

Dimensions

	A5: 25°		Contact Angle
a	11.1	mm	Effective Load Center

Abutment and Fillet Dimensions

da(min.)	19.5	mm	Diameter of Shaft Abutment
Da(max.)	32.5	mm	Diameter of Housing Abutment
Db(max.)	33.8	mm	Diameter of Housing Abutment
ra(max.)	0.3	mm	Radius of Shaft or Housing Fillet
rb(max.)	0.15	mm	Radius of Shaft or Housing Fillet

Performance

Pa	3.35	kN	Permissible Axial Load
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Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	25N	41N/μm	0μm
L	47N	51N/μm	-2μm
M	127N	74N/μm	-7μm
H	257N	99N/μm	-13μm

Additional information

	0.22	g/brg	Recommended Grease Quantities
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Mass

	0.040	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.