



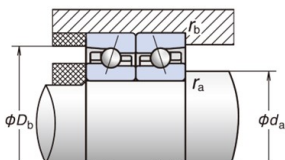
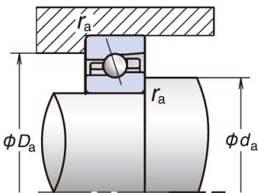
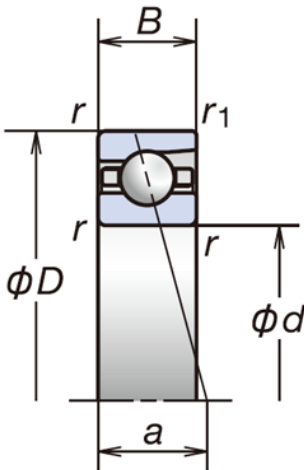
PRODUCT DATASHEET

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7005C

Standard Series High Precision Angular Contact Ball Bearings



Boundary Dimensions

d	25	mm	Bore diameter
D	47	mm	Outside diameter
B	12	mm	Width
r(min.)	0.6	mm	Chamfer Dimension
r1(min.)	0.3	mm	Chamfer Dimension

Basic Load Ratings

Cr	14.7	kN	Basic Dynamic Load Rating
C0r	7.40	kN	Basic Static Load Rating

Speeds

Grease	32000	min-1	Limiting Speed
Oil (Oil-air)	48700	min-1	Limiting Speed

Dimensions

	C: 15°		Contact Angle
a	10.8	mm	Effective Load Center

Abutment and Fillet Dimensions

da(min.)	30	mm	Diameter of Shaft Abutment
Da(max.)	42	mm	Diameter of Housing Abutment
Db(max.)	44.5	mm	Diameter of Housing Abutment
ra(max.)	0.6	mm	Radius of Shaft or Housing Fillet
rb(max.)	0.3	mm	Radius of Shaft or Housing Fillet

Performance

Pa	5.20	kN	Permissible Axial Load
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Calculation factors

f0	14.7		Factor
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Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	30N	24N/μm	-1μm
L	58N	32N/μm	-5μm
M	148N	48N/μm	-14μm
H	292N	67N/μm	-24μm

Additional information

	0.48	g/brg	Recommended Grease Quantities
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Mass

0.078	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.