



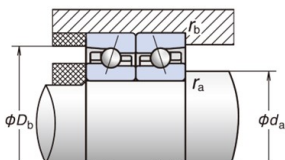
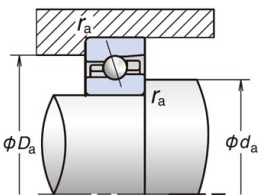
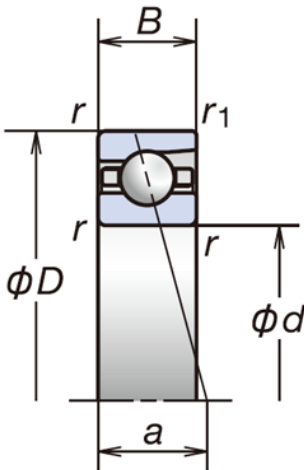
PRODUCT DATASHEET

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7024C

Standard Series High Precision Angular Contact Ball Bearings



Boundary Dimensions

d	120	mm	Bore diameter
D	180	mm	Outside diameter
B	28	mm	Width
r(min.)	2	mm	Chamfer Dimension
r1(min.)	1	mm	Chamfer Dimension

Basic Load Ratings

Cr	141	kN	Basic Dynamic Load Rating
C0r	117	kN	Basic Static Load Rating

Speeds

Grease	7700	min-1	Limiting Speed
Oil (Oil-air)	11700	min-1	Limiting Speed

Dimensions

	C: 15°		Contact Angle
a	34.1	mm	Effective Load Center

Abutment and Fillet Dimensions

da(min.)	130	mm	Diameter of Shaft Abutment
Da(max.)	170	mm	Diameter of Housing Abutment
Db(max.)	174	mm	Diameter of Housing Abutment
ra(max.)	2	mm	Radius of Shaft or Housing Fillet
rb(max.)	1	mm	Radius of Shaft or Housing Fillet

Performance

Pa	75.5	kN	Permissible Axial Load
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Calculation factors

f0	15.8		Factor
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Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	422N	116N/μm	-14μm
L	825N	153N/μm	-26μm
M	1959N	225N/μm	-50μm
H	3918N	316N/μm	-79μm

Additional information

	11	g/brg	Recommended Grease Quantities
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Mass

2.09	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.