



PRODUCT DATASHEET

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7007C

Standard Series High Precision Angular Contact Ball Bearings



Parts Number

7007CTRV1VSULP3

Boundary Dimensions

d	35	mm	Bore diameter
D	62	mm	Outside diameter
B	14	mm	Width
r(min.)	1	mm	Chamfer Dimension
r1(min.)	0.6	mm	Chamfer Dimension

Basic Load Ratings

Cr	20.1	kN	Basic Dynamic Load Rating
C0r	13.7	kN	Basic Static Load Rating

Speeds

Grease	23800	min-1	Limiting Speed
Oil (Oil-air)	36100	min-1	Limiting Speed

Dimensions

	C: 15°		Contact Angle
a	13.5	mm	Effective Load Center

Abutment and Fillet Dimensions

da(min.)	41	mm	Diameter of Shaft Abutment
Da(max.)	56	mm	Diameter of Housing Abutment
Db(max.)	57	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

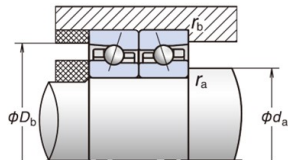
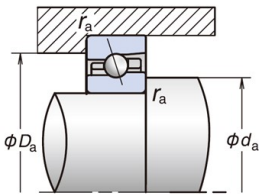
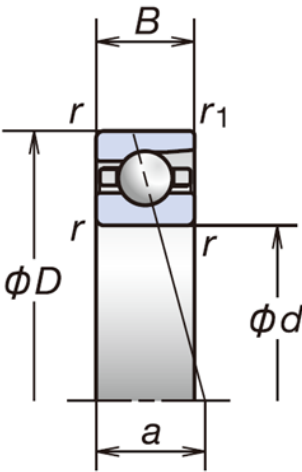
Pa	9.35	kN	Permissible Axial Load
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Calculation factors

f0	15.0		Factor
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Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	58N	36N/μm	-1μm
L	121N	49N/μm	-7μm
M	251N	67N/μm	-16μm
H	493N	94N/μm	-28μm





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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.

Additional information

0.91	g/brg	Recommended Grease Quantities
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Mass

0.151	kg	Mass(approx.)
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