



PRODUCT DATASHEET

Datasheet creation date: 2025/06/02 10:02 (UTC)



7014C

Standard Series High Precision Angular Contact Ball Bearings



Parts Number

7014CTRV1VSULP3

Boundary Dimensions

d	70	mm	Bore diameter
D	110	mm	Outside diameter
B	20	mm	Width
r(min.)	1.1	mm	Chamfer Dimension
r1(min.)	0.6	mm	Chamfer Dimension

Basic Load Ratings

Cr	49.0	kN	Basic Dynamic Load Rating
C0r	43.0	kN	Basic Static Load Rating

Speeds

Grease	12800	min-1	Limiting Speed
Oil (Oil-air)	19500	min-1	Limiting Speed

Dimensions

	C: 15°		Contact Angle
a	22.1	mm	Effective Load Center

Abutment and Fillet Dimensions

da(min.)	77	mm	Diameter of Shaft Abutment
Da(max.)	103	mm	Diameter of Housing Abutment
Db(max.)	105	mm	Diameter of Housing Abutment
ra(max.)	1	mm	Radius of Shaft or Housing Fillet
rb(max.)	0.6	mm	Radius of Shaft or Housing Fillet

Performance

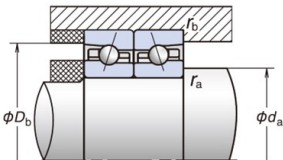
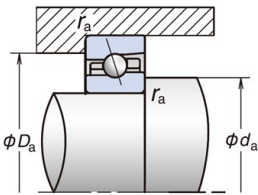
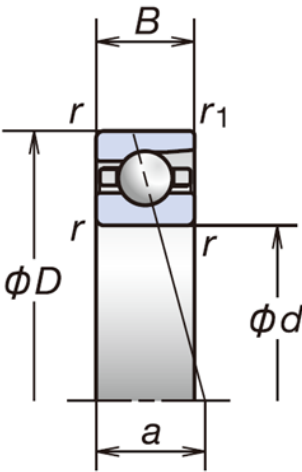
Pa	26.8	kN	Permissible Axial Load
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Calculation factors

f0	15.7		Factor
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Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	148N	68N/μm	-7μm
L	285N	89N/μm	-14μm
M	732N	135N/μm	-30μm
H	1460N	190N/μm	-48μm





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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

3.4	g/brg	Recommended Grease Quantities
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Mass

0.606	kg	Mass(approx.)
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