



7013C

Standard Series High Precision Angular Contact Ball Bearings



Boundary Dimensions

d	65	mm	Bore diameter
D	100	mm	Outside diameter
B	18	mm	Width
r(min.)	1.1	mm	Chamfer Dimension
r1(min.)	0.6	mm	Chamfer Dimension

Basic Load Ratings

Cr	47.0	kN	Basic Dynamic Load Rating
C0r	34.5	kN	Basic Static Load Rating

Speeds

Grease	14000	min-1	Limiting Speed
Oil (Oil-air)	21300	min-1	Limiting Speed

Dimensions

	C: 15°		Contact Angle
a	20.0	mm	Effective Load Center

Abutment and Fillet Dimensions

da(min.)	72	mm	Diameter of Shaft Abutment
Da(max.)	93	mm	Diameter of Housing Abutment
Db(max.)	95	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	22.0	kN	Permissible Axial Load
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Calculation factors

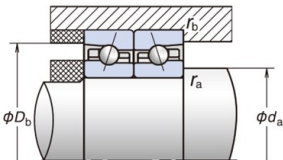
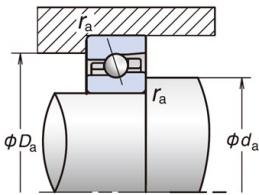
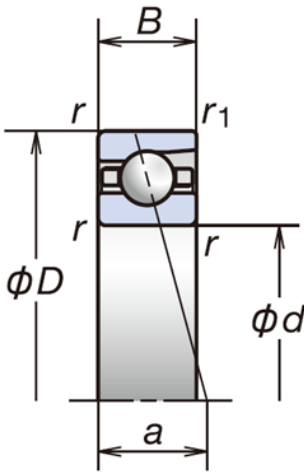
f0	15.9		Factor
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Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	130N	64N/μm	-6μm
L	260N	85N/μm	-13μm
M	537N	117N/μm	-24μm
H	1062N	163N/μm	-39μm

Additional information

	2.5	g/brg	Recommended Grease Quantities
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PRODUCT DATASHEET

Datasheet creation date: 2025/06/02 10:01 (UTC)



Mass

0.435	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.