



PRODUCT DATASHEET

Datasheet creation date: 2025/06/02 10:27 (UTC)



7914A5

Standard Series High Precision Angular Contact Ball Bearings



Parts Number

7914A5TRV1VSULP3

Boundary Dimensions

d	70	mm	Bore diameter
D	100	mm	Outside diameter
B	16	mm	Width
r(min.)	1	mm	Chamfer Dimension
r1(min.)	0.6	mm	Chamfer Dimension

Basic Load Ratings

Cr	27.9	kN	Basic Dynamic Load Rating
C0r	26.3	kN	Basic Static Load Rating

Speeds

Grease	11800	min-1	Limiting Speed
Oil (Oil-air)	17700	min-1	Limiting Speed

Dimensions

	A5: 25°		Contact Angle
a	27.8	mm	Effective Load Center

Abutment and Fillet Dimensions

da(min.)	76	mm	Diameter of Shaft Abutment
Da(max.)	94	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.)	0.5	mm	Radius of Shaft or Housing Fillet

Performance

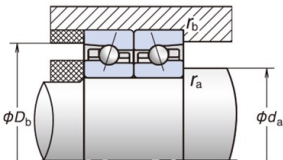
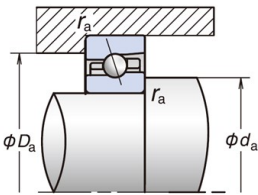
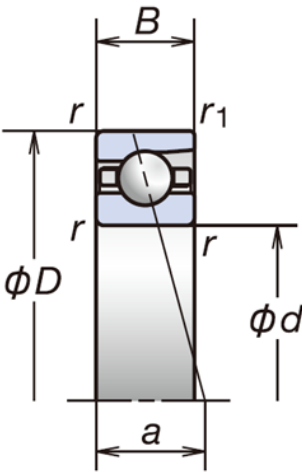
Pa	20.3	kN	Permissible Axial Load
----	------	----	------------------------

Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	137N	138N/μm	-3μm
L	298N	182N/μm	-7μm
M	676N	248N/μm	-14μm
H	1404N	334N/μm	-24μm

Additional information

2.0	g/brg	Recommended Grease Quantities
-----	-------	-------------------------------





PRODUCT DATASHEET

Datasheet creation date: 2025/06/02 10:27 (UTC)



Mass

0.341	kg	Mass(approx.)
-------	----	---------------

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.