7920C

Standard Series High Precision Angular Contact Ball Bearings

Parts Number

	7920CTRV1VSUMP3

Boundary Dimensions

d	100	mm	Bore diameter
D	140	mm	Outside diameter
B	20	mm	Width
r(min.)	1.1	mm	Chamfer Dimension
r1(min.)	0.6	mm	Chamfer Dimension

Basic Load Ratings

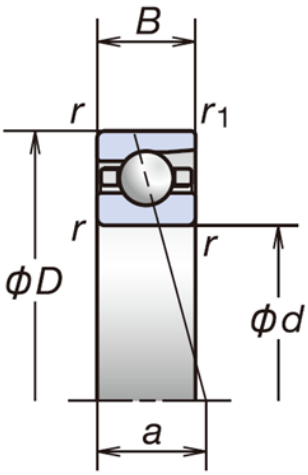
Cr	52.5	kN	Basic Dynamic Load Rating
C0r	54.0	kN	Basic Static Load Rating

Speeds

Grease	9600	min-1	Limiting Speed
Oil (Oil-air)	14600	min-1	Limiting Speed

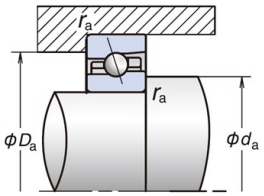
Dimensions

	C: 15°		Contact Angle
a	26.1	mm	Effective Load Center



Abutment and Fillet Dimensions

da(min.)	107	mm	Diameter of Shaft Abutment
Da(max.)	133	mm	Diameter of Housing Abutment
Db(max.)	135	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

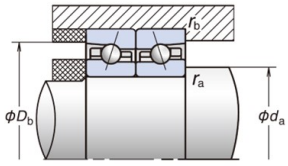


Performance

Pa	33.0	kN	Permissible Axial Load

Calculation factors

f0	16.5		Factor



Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	191N	84N/μm	-5μm
L	387N	112N/μm	-13μm
M	905N	164N/μm	-28μm
H	1790N	230N/μm	-46μm

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

	4.6	g/brg	Recommended Grease Quantities

Mass

	0.800	kg	Mass(approx.)