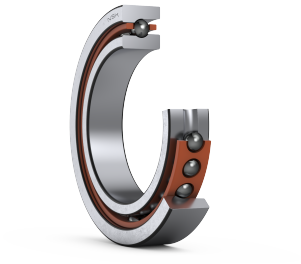
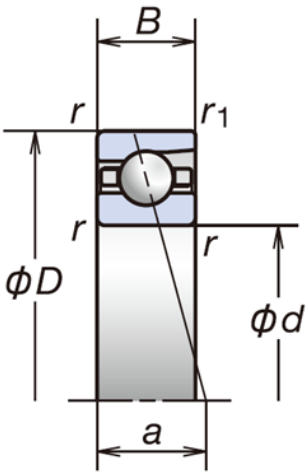
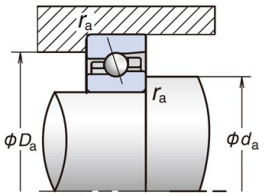
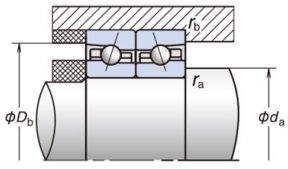
65BNR10H

ROBUST Series Ultra High-Speed Angular Contact Ball Bearings









Parts Number

	65BNR10HTSUELP3		

Boundary Dimensions

	BNR: 18°		Bearing Type
d	65	mm	Bore diameter
D	100	mm	Outside diameter
B	18	mm	Width
BN	4.0	mm	
SN	10	mm	
SB	1.4	mm	
r(min.)	1.1	mm	Chamfer Dimension
r1(min.)	0.6	mm	Chamfer Dimension

Basic Load Ratings

Cr	20.4	kN	Basic Dynamic Load Rating
C0r	14.2	kN	Basic Static Load Rating

Speeds

Grease	21900	min-1	Limiting Speed
Oil (Oil-air)	34000	min-1	Limiting Speed

Dimensions

	18°		Contact Angle
a	22.3	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	13.9	kN	Permissible Axial Load

Calculation factors

f0	10.9		Factor

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.

Preload,Rigidity(DB and DF arrangement)

	Preload	Axial Rigidity	Measured axial clearance
EL	49N	60N/μm	0μm
L	141N	87N/μm	-5μm
M	415N	131N/μm	-15μm

Additional information

	1.8	g/brg	Recommended Grease Quantities

Mass

	0.447	kg	Mass(approx.)