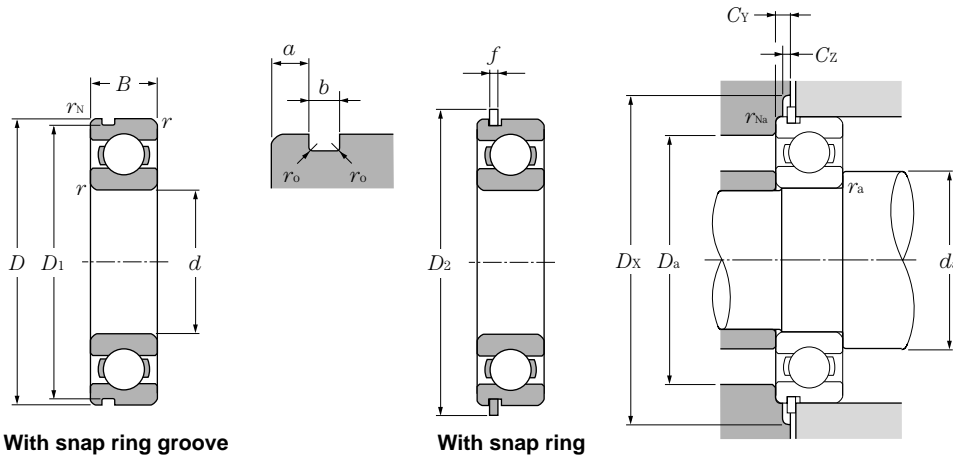


d 10 ~ 20mm

d	Boundary dimensions				Basic load ratings				Limiting speeds				Bearing numbers				
	mm				dynamic		static		rpm				open type	sealed type	non-contact type	low torque type	contact type
	D	B	r _{s min}	r _{NS min}	C _r	C _{or}	C _r	C _{or}	grease open type ZZ	oil open type Z LB	LLH	LLU					
10	15	3	0.1		0.855	0.435	87	44	10,000	12,000			6700				
	19	5	0.3		1.83	0.925	187	94	32,000	38,000		24,000	6800	ZZ	LLB		LLU
	22	6	0.3	0.3	2.7	1.27	275	129	30,000	36,000		21,000	6900	ZZ	LLB		LLU
	26	8	0.3		4.55	1.96	465	200	29,000	34,000	25,000	21,000	6000	ZZ	LLB	LLH	LLU
	30	9	0.6	0.5	5.10	2.39	520	244	25,000	30,000	21,000	18,000	6200	ZZ	LLB	LLH	LLU
	35	11	0.6	0.5	8.20	3.50	835	355	23,000	27,000	20,000	16,000	6300	ZZ	LLB	LLH	LLU
12	18	4	0.2		0.930	0.530	95	54	8,300	9,500			6701		LLF		
	21	5	0.3		1.92	1.04	195	106	29,000	35,000		20,000	6801	ZZ	LLB		LLU
	24	6	0.3	0.3	2.89	1.46	295	149	27,000	32,000		19,000	6901	ZZ	LLB		LLU
	28	7	0.3		5.10	2.39	520	244	26,000	30,000			16001				
	28	8	0.3		5.10	2.39	520	244	26,000	30,000	21,000	18,000	6001	ZZ	LLB	LLH	LLU
	32	10	0.6	0.5	6.10	2.75	620	280	22,000	26,000	20,000	16,000	6201	ZZ	LLB	LLH	LLU
	37	12	1	0.5	9.70	4.20	990	425	20,000	24,000	19,000	15,000	6301	ZZ	LLB	LLH	LLU
15	21	4	0.2		0.940	0.585	96	59	6,600	7,600			6702		LLF		
	24	5	0.3		2.08	1.26	212	128	26,000	31,000		17,000	6802	ZZ	LLB		LLU
	28	7	0.3	0.3	3.65	2.00	375	204	24,000	28,000		16,000	6902	ZZ	LLB		LLU
	32	8	0.3		5.60	2.83	570	289	22,000	26,000			16002				
	32	9	0.3	0.3	5.60	2.83	570	289	22,000	26,000	18,000	15,000	6002	ZZ	LLB	LLH	LLU
	35	11	0.6	0.5	7.75	3.60	790	365	19,000	23,000	18,000	15,000	6202	ZZ	LLB	LLH	LLU
	42	13	1	0.5	11.4	5.45	1,170	555	17,000	21,000	15,000	12,000	6302	ZZ	LLB	LLH	LLU
17	23	4	0.2		1.00	0.660	102	67	5,000	6,700			6703		LLF		
	26	5	0.3		2.23	1.46	227	149	24,000	28,000		15,000	6803	ZZ	LLB		LLU
	30	7	0.3	0.3	4.65	2.58	475	263	22,000	26,000		14,000	6903	ZZ	LLB		LLU
	35	8	0.3		6.80	3.35	695	345	20,000	24,000			16003				
	35	10	0.3	0.3	6.80	3.35	695	345	20,000	24,000	16,000	14,000	6003	ZZ	LLB	LLH	LLU
	40	12	0.6	0.5	9.60	4.60	980	465	18,000	21,000	15,000	12,000	6203	ZZ	LLB	LLH	LLU
	47	14	1	0.5	13.5	6.55	1,380	665	16,000	19,000	14,000	11,000	6303	ZZ	LLB	LLH	LLU
	62	17	1.1		22.7	10.8	2,320	1,100	14,000	16,000			6403				
20	27	4	0.2		1.04	0.730	106	74	5,000	5,700			6704		LLF		
	32	7	0.3	0.3	4.00	2.47	410	252	21,000	25,000		13,000	6804	ZZ	LLB		LLU
	37	9	0.3	0.3	6.40	3.70	650	375	19,000	23,000		12,000	6904	ZZ	LLB		LLU
	42	8	0.3		7.90	4.50	810	455	18,000	21,000			16004				
	42	12	0.6	0.5	9.40	5.05	955	515	18,000	21,000	13,000	11,000	6004	ZZ	LLB	LLH	LLU
	47	14	1	0.5	12.8	6.65	1,310	680	16,000	18,000	12,000	10,000	6204	ZZ	LLB	LLH	LLU
	52	15	1.1	0.5	15.9	7.90	1,620	805	14,000	17,000	12,000	10,000	6304	ZZ	LLB	LLH	LLU

① Smallest allowable dimension for chamfer dimension r.



Equivalent bearing load

dynamic

$$P_r = XF_r + YF_a$$

$\frac{F_a}{C_{or}}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0.010	0.18				2.46
0.020	0.20				2.14
0.040	0.24				1.83
0.070	0.27				1.61
0.10	0.29	1	0	0.56	1.48
0.15	0.32				1.35
0.20	0.35				1.25
0.30	0.38				1.13
0.40	0.41				1.05
0.50	0.44				1.00

static

$$P_{or} = 0.6F_r + 0.5F_a$$

When $P_{or} < F_r$ use $P_{or} = F_r$

Bearing numbers		Snap ring groove dimensions mm				Snap ring dimensions mm		Abutment and fillet dimensions mm								Mass ⁴
snap ring groove	snap ring	D_1 max	a max	b min	r_o max	D_2 max	f max	d_a min	d_a max	D_a max	D_X (approx.)	C_Y max	C_Z min	r_{as} max	r_{Na} max	(approx.)
N	NR	20.8	1.05	0.8	0.2	24.8	0.7	10.8	12	14.2	25.5	1.5	0.7	0.3	0.3	0.0015
								12	12.5	17						0.005
								12	13.5	24						0.009
								12	13.5	24						0.019
N	NR	28.17	2.06	1.35	0.4	34.7	1.12	14	16	26	35.5	2.9	1.2	0.6	0.5	0.032
N	NR	33.17	2.06	1.35	0.4	39.7	1.12	14	17	31	40.5	2.9	1.2	0.6	0.5	0.053
N	NR	22.8	1.05	0.8	0.2	26.8	0.7	13.6	13.8	16.4	27.5	1.5	0.7	0.3	0.3	0.002
								14	14.5	19						0.006
								14	15	22						0.011
								14	16	26						0.019
N	NR	30.15	2.06	1.35	0.4	36.7	1.12	16	17	28	37.5	2.9	1.2	0.6	0.5	0.037
N	NR	34.77	2.06	1.35	0.4	41.3	1.12	17	18.5	32	42	2.9	1.2	1	0.5	0.06
N	NR	26.7	1.3	0.95	0.25	30.8	0.85	16.6	16.8	19.4	31.5	1.9	0.9	0.3	0.3	0.0025
								17	17.5	22						0.007
								17	17.5	26						0.016
								17	30	30						0.025
N	NR	30.15	2.06	1.35	0.4	36.7	1.12	17	19	30	37.5	2.9	1.2	0.3	0.3	0.03
N	NR	33.17	2.06	1.35	0.4	39.7	1.12	19	20	31	40.5	2.9	1.2	0.6	0.5	0.045
N	NR	39.75	2.06	1.35	0.4	46.3	1.12	20	23	37	47	2.9	1.2	1	0.5	0.082
N	NR	28.7	1.3	0.95	0.25	32.8	0.85	18.6	18.8	21.4	33.5	1.9	0.9	0.3	0.3	0.0025
								19	19.5	24						0.008
								19	20	28						0.018
								19	33	33						0.032
N	NR	33.17	2.06	1.35	0.4	39.7	1.12	19	21	33	40.5	2.9	1.2	0.3	0.3	0.039
N	NR	38.1	2.06	1.35	0.4	44.6	1.12	21	23	36	45.5	2.9	1.2	0.6	0.5	0.066
N	NR	44.6	2.46	1.35	0.4	52.7	1.12	22	25	42	53.5	3.3	1.2	1	0.5	0.115
								23.5		55.5				1		0.27
N	NR	30.7	1.3	0.95	0.25	34.8	0.85	21.6	22.3	25.4	35.5	1.9	0.9	0.3	0.3	0.0045
								22	22.5	30						0.019
								22	24	35						0.036
								22	40	40						0.051
N	NR	39.75	2.06	1.35	0.4	46.3	1.12	24	26	38	47	2.9	1.2	0.6	0.5	0.069
N	NR	44.6	2.46	1.35	0.4	52.7	1.12	25	28	42	53.5	3.3	1.2	1	0.5	0.106
N	NR	49.73	2.46	1.35	0.4	57.9	1.12	26.5	28.5	45.5	58.5	3.3	1.2	1	0.5	0.144

② Sealed and shielded bearings are also available. ③ This dimension applies to sealed and shielded bearings. ④ Does not include bearings with snap rings. ⑤ See page B-38.