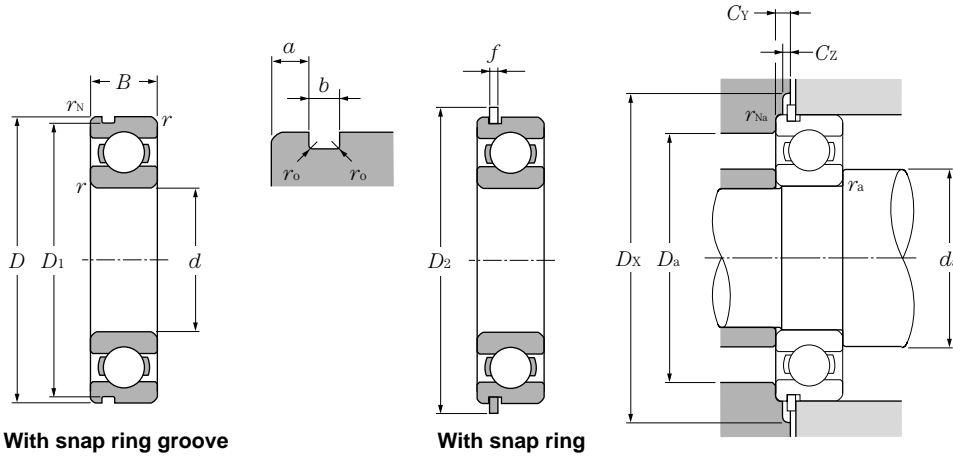


d 20 ~ 35mm

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} ①	r _{NS min}	C _r	C _{or}	C _r	C _{or}	grease open type ZZ	grease open type LLB	oil open type Z	oil open type LB						LLH	LLU
20	72	19	1.1		28.5	13.9	2,900	1,420	12,000	14,000					6404				
22	44	12	0.6	0.5	9.40	5.05	955	515	17,000	20,000	13,000	10,000	60/22	ZZ	LLB	LLH	LLU		
	50	14	1	0.5	12.9	6.80	1,320	690	14,000	17,000	12,000	9,700	62/22	ZZ	LLB	LLH	LLU		
	56	16	1.1	0.5	18.4	9.25	1,880	945	13,000	15,000	11,000	9,200	63/22	ZZ	LLB	LLH	LLU		
25	32	4	0.2		1.10	0.840	112	86	4,000	4,600			6705		LLF				
	37	7	0.3	0.3	4.30	2.95	435	300	18,000	21,000		10,000	6805	ZZ	LLB		LLU		
	42	9	0.3	0.3	7.05	4.55	715	460	16,000	19,000		9,800	6905	ZZ	LLB		LLU		
	47	8	0.3		8.35	5.10	855	520	15,000	18,000			16005						
	47	12	0.6	0.5	10.1	5.85	1,030	595	15,000	18,000	11,000	9,400	6005	ZZ	LLB	LLH	LLU		
	52	15	1	0.5	14.0	7.85	1,430	800	13,000	15,000	11,000	8,900	6205	ZZ	LLB	LLH	LLU		
	62	17	1.1	0.5	21.2	10.9	2,160	1,110	12,000	14,000	9,700	8,100	6305	ZZ	LLB	LLH	LLU		
80	21	1.5		34.5	17.5	3,550	1,780	10,000	12,000			6405							
28	52	12	0.6	0.5	12.5	7.40	1,270	755	14,000	16,000	10,000	8,400	60/28	ZZ	LLB	LLH	LLU		
	58	16	1	0.5	17.9	9.75	1,830	995	12,000	14,000	9,700	8,100	62/28	ZZ	LLB	LLH	LLU		
	68	18	1.1	0.5	26.7	14.0	2,730	1,430	11,000	13,000	8,900	7,400	63/28	ZZ	LLB	LLH	LLU		
30	37	4	0.2		1.14	0.950	117	97	3,300	3,800			6706		LLF				
	42	7	0.3	0.3	4.70	3.65	480	370	15,000	18,000		8,800	6806	ZZ	LLB		LLU		
	47	9	0.3	0.3	7.25	5.00	740	510	14,000	17,000		8,400	6906	ZZ	LLB		LLU		
	55	9	0.3		11.2	7.35	1,150	750	13,000	15,000			16006						
	55	13	1	0.5	13.2	8.3	1,350	845	13,000	15,000	9,200	7,700	6006	ZZ	LLB	LLH	LLU		
	62	16	1	0.5	19.5	11.3	1,980	1,150	11,000	13,000	8,800	7,300	6206	ZZ	LLB	LLH	LLU		
	72	19	1.1	0.5	26.7	15.0	2,720	1,530	10,000	12,000	7,900	6,600	6306	ZZ	LLB	LLH	LLU		
90	23	1.5		43.5	23.9	4,400	2,440	8,800	10,000			6406							
32	58	13	1	0.5	11.8	8.05	1,200	820	12,000	15,000	8,700	7,200	60/32	ZZ	LLB	LLH	LLU		
	65	17	1	0.5	20.7	11.6	2,110	1,190	11,000	12,000	8,400	7,100	62/32	ZZ	LLB	LLH	LLU		
	75	20	1.1	0.5	29.8	16.9	3,050	1,730	9,500	11,000	7,700	6,500	63/32	ZZ	LLB	LLH	LLU		
35	47	7	0.3	0.3	4.90	4.05	500	410	13,000	16,000		7,600	6807	ZZ	LLB		LLU		
	55	10	0.6	0.5	9.55	6.85	975	695	12,000	15,000		7,100	6907	ZZ	LLB		LLU		
	62	9	0.3		11.7	8.20	1,190	835	12,000	14,000			16007						
	62	14	1	0.5	16.0	10.3	1,630	1,050	12,000	14,000	8,200	6,800	6007	ZZ	LLB	LLH	LLU		
	72	17	1.1	0.5	25.7	15.3	2,620	1,560	9,800	11,000	7,600	6,300	6207	ZZ	LLB	LLH	LLU		
	80	21	1.5	0.5	33.5	19.1	3,400	1,950	8,800	10,000	7,300	6,000	6307	ZZ	LLB	LLH	LLU		
100	25	1.5		55.0	31.0	5,600	3,150	7,800	9,100			6407							

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				1.48
0.15	0.32	1	0	0.56	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 kg
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.)
								26.5		65.5						0.4
N	NR	41.75	2.06	1.35	0.4	48.3	1.12	26	26.5	40	49	2.9	1.2	0.6	0.5	0.074
N	NR	47.6	2.46	1.35	0.4	55.7	1.12	27	29.5	45	56.5	3.3	1.2	1	0.5	0.117
N	NR	53.6	2.46	1.35	0.4	61.7	1.12	28.5	31	49.5	62.5	3.3	1.2	1	0.5	0.176
								26.6	27.3	30.4				0.2		0.005
N	NR	35.7	1.3	0.95	0.25	39.8	0.85	27	28	35	40.5	1.9	0.9	0.3	0.3	0.022
N	NR	40.7	1.7	0.95	0.25	44.8	0.85	27	29	40	45.5	2.3	0.9	0.3	0.3	0.042
								27		45.0			0.3			0.06
N	NR	44.6	2.06	1.35	0.4	52.7	1.12	29	30.5	43	53.5	2.9	1.2	0.6	0.5	0.08
N	NR	49.73	2.46	1.35	0.4	57.9	1.12	30	32	47	58.5	3.3	1.2	1	0.5	0.128
N	NR	59.61	3.28	1.9	0.6	67.7	1.7	31.5	35	55.5	68.5	4.6	1.7	1	0.5	0.232
								33		72			1.5			0.53
N	NR	49.73	2.06	1.35	0.4	57.9	1.12	32	34	48	58.5	2.9	1.2	0.6	0.5	0.098
N	NR	55.6	2.46	1.35	0.4	63.7	1.12	33	35.5	53	64.5	3.3	1.2	1	0.5	0.171
N	NR	64.82	3.28	1.9	0.6	74.6	1.7	34.5	38.5	61.5	76	4.6	1.7	1	0.5	0.284
								31.6	32.3	35.4				0.2		0.006
N	NR	40.7	1.3	0.95	0.25	44.8	0.85	32	33	40	45.5	1.9	0.9	0.3	0.3	0.026
N	NR	45.7	1.7	0.95	0.25	49.8	0.85	32	34	45	50.5	2.3	0.9	0.3	0.3	0.048
								32		53			0.3			0.091
N	NR	52.6	2.08	1.35	0.4	60.7	1.12	35	37	50	61.5	2.9	1.2	1	0.5	0.116
N	NR	59.61	3.28	1.9	0.6	67.7	1.7	35	39	57	68.5	4.6	1.7	1	0.5	0.199
N	NR	68.81	3.28	1.9	0.6	78.6	1.7	36.5	43	65.5	80	4.6	1.7	1	0.5	0.36
								38		82			1.5			0.735
N	NR	55.6	2.08	1.35	0.4	63.7	1.12	37	39	53	64.5	2.9	1.2	1	0.5	0.129
N	NR	62.6	3.28	1.9	0.6	70.7	1.7	37	40	60	71.5	4.6	1.7	1	0.5	0.226
N	NR	71.83	3.28	1.9	0.6	81.6	1.7	38.5	43.5	68.5	83	4.6	1.7	1	0.5	0.382
N	NR	45.7	1.3	0.95	0.25	49.8	0.85	37	38	45	50.5	1.9	0.9	0.3	0.3	0.029
N	NR	53.7	1.7	0.95	0.25	57.8	0.85	39	40	51	58.5	2.3	0.9	0.6	0.5	0.074
								37		60			0.3			0.11
N	NR	59.61	2.08	1.9	0.6	67.7	1.7	40	42	57	68.5	3.4	1.7	1	0.5	0.155
N	NR	68.81	3.28	1.9	0.6	78.6	1.7	41.5	45	65.5	80	4.6	1.7	1	0.5	0.288
N	NR	76.81	3.28	1.9	0.6	86.6	1.7	43	47	72	88	4.6	1.7	1.5	0.5	0.457
								43		92			1.5			0.952

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.